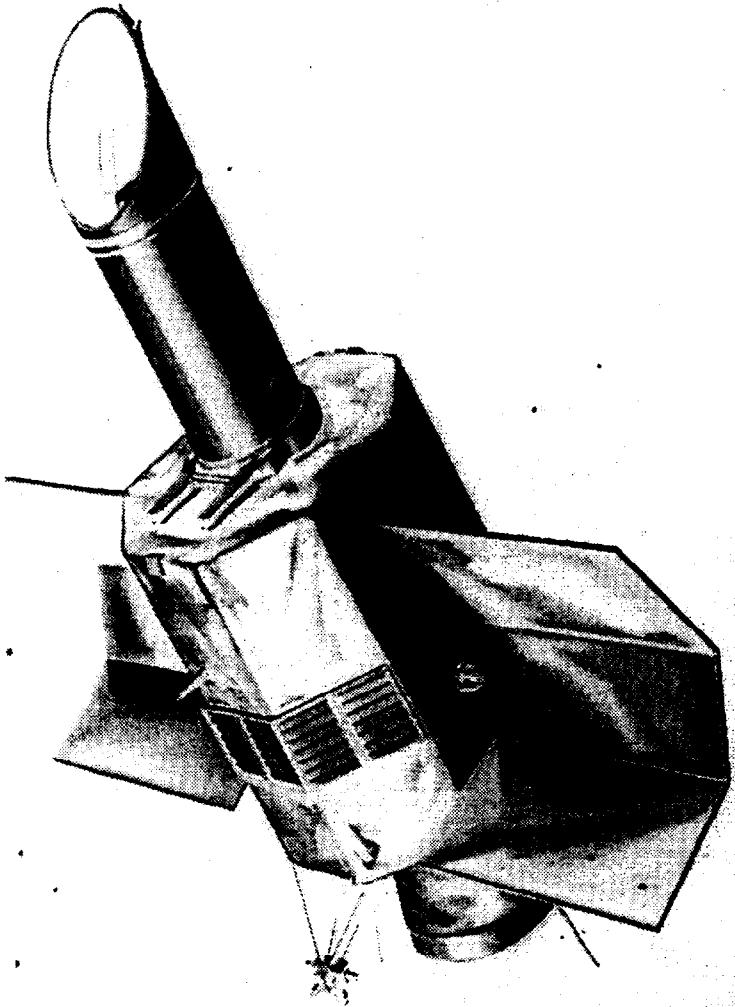

International Ultraviolet Explorer (IUE)

NASA NEWSLETTER

44



National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, Maryland
20771



May 1, 1991

Dear Colleague:

IUE NEWSLETTER #44 is a special issue devoted in its entirety to a bibliography of refereed papers based on data obtained with the IUE satellite. These publications have appeared in the major astronomical and related journals listed on the following page. The survey is complete for the years 1978 through 1990 for journals marked with an asterisk. Those without an asterisk may be incomplete due to missing volumes. If you know of any papers that should be included, please let us know for inclusion in a future revised bibliography. The bibliography contains almost 2100 entries and is an eloquent testimony to the tremendous success of the International Ultraviolet Explorer satellite, its users, operators, and the people who created it.

If we were to add Conference Proceedings, meeting abstracts, popular articles, etc., the list would easily be expanded by several thousand items.

We are greatly indebted to Pat Pitts for collecting the information and arranging the printout of this bibliography. As before, the assistance of Mona Drexler is gratefully acknowledged.

Sincerely,

Walter A. Feibelman

Walter A. Feibelman
Code 684.1
Laboratory for Astronomy and
Solar Physics

Journals in the list of IUE references
 * = 1978 through present checked

Name	Abbreviation
Advances in Space Research	Adv. Sp. Res.
* Astronomical Journal	A.J.
* Astronomy and Astrophysics	A. & A.
* Astronomy and Astrophysics Supplement	A. & A. Suppl.
* Astrophysical Journal	Ap. J.
* Astrophysical Journal Supplement	Ap. J. Suppl.
* Astrophysics and Space Science	Astrophys. Sp. Sci.
Bulletin of the Astronomical Institute of Czechoslovakia	Bull. Astron. Ins. Czech.
Geophysical Research Letters	Geophys. Res. Let.
* Icarus	Icarus
Irish Astronomical Journal	Irish Astron. J.
Journal of Geophysical Research	Jour. Geophys. Res.
* Monthly Notices of the Royal Astronomical Society	M.N.R.A.S.
Moon and Planets	Moon & Planets
* Nature	Nature
* Observatory	Observatory
Physica Scripta	Physica Scripta
* Proceedings of the Astronomical Society of Australia	Proc. Ast. Soc. Australia
Proceedings of the National Academy of Science	Proc. Natl. Acad.
* Publications of the Astronomical Society of Japan	Publ. Astron. Soc. Japan
* Publications of the Astronomical Society of the Pacific	P.A.S.P.
Reviews of Geophysics and Space Physics	Rev. Geophys. & Sp. Phys.
* Revista Mexicana de Astronomia y Astrofisica	Rev. Mex. Astron. Astrof.
Royal Society Philosophical Transactions	Roy. Soc. Phil. Trans.
Science	Science

A'Hearn, M.F., Birch, P.V., Feldman, P.D., and Millis, R.L. 1985, Comet Encke: gas production and lightcurve, *Icarus*, 64, 1.

A'Hearn, M.F., and Feldman, P.D. 1980, Carbon in Comet Bradfield 19791, *Ap. J.*, 242, L187.

A'Hearn, M.F., Feldman, P.D., and Schleicher, D.G. 1983, The discovery of S2 in comet Iras-Araki-Alcock 1983d, *Ap. J.*, 274, L99.

A'Hearn, M.F., and Schleicher, D.G. 1988, Comet P/Encke's nongravitational force, *Ap. J.*, 331, L47.

A'Hearn, M.F., Schleicher, D.G., Feldman, P.D., Millis, R.L., and Thompson, D.T. 1984, Comet Bowell 1980b, *Ap. J.*, 89, 579.

A'Hearn, M.F., Schleicher, D.G., and West, R.A. 1985, Emission by OD in comets, *Ap. J.*, 297, 826.

Abbott, D.C. 1982, The return of mass and energy to the interstellar medium by winds from early-type stars, *Ap. J.*, 263, 723.

Adam, J., Baschek, B., Johansson, S., Nilsson, A.E., and Brage, T. 1987, Ultraviolet doubly excited FeII lines in the laboratory and in the A-type star 21 Pegasi, *Ap. J.*, 312, 337.

Adam, J., and Koppen, J. 1985, Models for the planetary nebulae NGC 4361 and NGC 1535: influence of the stellar wind on the nebular ionization, *A. & A.*, 142, 461.

Adams, S., and Seaton, M.J. 1982, Ultraviolet spectra of planetary nebulae - VII. The abundance of carbon in the very low excitation nebula He2 - 131, *M.N.R.A.S.*, 200, 7P.

Adams, S., Seaton, M.J., Howarth, I.D., Auriere, M., and Walsh, J.R. 1984, K648, the planetary nebula in the globular cluster M15, *M.N.R.A.S.*, 207, 471.

Adelman, S.J. 1985, On the ultraviolet energy distributions and the temperatures of peculiar B and A stars, *P.A.S.P.*, 97, 970.

Adelman, S.J., and Leckrone, D.S. 1984, On the need for spectroscopic data in ultraviolet stellar spectral synthesis calculations, *Physica Scripta*, T8, 25.

- Adelman, S.J., and Leckrone, D.S. 1986, The ultraviolet IUE spectrum of the population II horizontal-branch A star HD 109995, *A. & A.*, 162, 373.
- Adelman, S.J., and Shore, S.N. 1981, The ultraviolet spectrum of the peculiar A star HD 51418, *P.A.S.P.*, 93, 85.
- Ahmad, I.A. 1986, IUE observations of accretion columns in two Zeta Aurigae-type systems, *Ap. J.*, 301, 275.
- Ahmad, I.A. 1989, The accretion wake of 31 Cygni, *Ap. J.*, 338, 1011.
- Ahmad, I.A., Chapman, R.D., and Kondo, Y. 1983, Mg II profile variations of Zeta Aurigae, *A. & A.*, 126, L5.
- Ahmad, I.A., and Parsons, S.B. 1985, Discovery of an accretion shock cone in 22 Vulpeculae, *Ap. J.*, 299, L33.
- Ahmad, I.A., and Stencel, R.E. 1988, The stellar wind velocity function for red supergiants determined in eclipsing binaries, *Ap. J.*, 329, 797.
- Aiello, S., Barsella, B., Chlewicki, G., Greenberg, J.M., Patriarchi, P., and Perinotto, M. 1988, Atlas of the wavelength dependence of ultraviolet extinction in the galaxy, *A. & A. Suppl.*, 73, 195.
- Ake, T.B., and Johnson, H.R. 1988, A white dwarf companion to the main-sequence star 4 Omicron-1 Orionis and the binary hypothesis for the origin of peculiar red giants, *Ap. J.*, 327, 214.
- Ake, T.B., Parsons, S.B., and Kondo, Y. 1985, The newly discovered eclipsing supergiant 22 Vulpeculae, *Ap. J.*, 298, 772.
- Aldrovandi, S.M.V., and Contini, M. 1984, Composite models for the narrow line regions of active galactic nuclei. II. The UV lines, *A. & A.*, 140, 368.
- Alecian, G. 1982, On the detection of abundance stratifications in peculiar stars through the curve of growth method, *A. & A.*, 107, 61.
- Alecian, G., and Artru, M.-C. 1987, The diffusion of gallium in main-sequence peculiar stars, *A. & A.*, 186, 223.

- Allen, D.A. 1983, The symbiotic star H1-36, M.N.R.A.S., 204, 113.
- Allen, D.A., and Wright, A.E. 1988, A model of the symbiotic star RX Puppis, M.N.R.A.S., 232, 683.
- Aller, L.H. 1983, A spectroscopic study of some planetary nebulae in the Large Magellanic Cloud, Ap. J., 273, 590.
- Aller, L.H. 1990, The chemical compositions of gaseous nebulae, P.A.S.P., 102, 1097.
- Aller, L.H., Keyes, C.D., and Czyzak, S.J. 1981, The optical and ultraviolet spectra of the high excitation planetary nebula, CD -23 12238=Me 2-1, Ap. J., 250, 596.
- Aller, L.H., Keyes, C.D., and Czyzak, S.J. 1985, Spectrum of the high-excitation planetary nebula NGC 6741 (33-2.1), Ap. J., 296, 492.
- Aller, L.H., Keyes, C.D., and Feibelman, W.A. 1986, Spectrum and chemical analysis of the double-ring planetary nebula IC 1297, Ap. J., 311, 930.
- Aller, L.H., Keyes, C.D., and Feibelman, W.A. 1986, Ultraviolet spectrum and probable chemical composition of the high-excitation planetary nebula M1-1, Proc. Natl. Acad. Sci., 83, 2777.
- Aller, L.H., Keyes, C.D., and Feibelman, W.A. 1988, Two compact planetary nebulae of moderate excitation: NGC 6565 (3-4.5) and NGC 6644 (8-7.2), P.A.S.P., 100, 192.
- Aller, L.H., Keyes, C.D., Maran, S.P., Gull, T.R., Michalitsianos, A.G., and Stecher, T.P. 1987, Physical parameters for 12 planetary nebulae and their central stars in the Magellanic Clouds, Ap. J., 320, 159.
- Aller, L.H., Keyes, C.D., Ross, J.E., and O'Mara, B.J. 1981, An analysis of the planetary nebula NGC 2867, M.N.R.A.S., 197, 647.
- Aller, L.H., Ross, J.E., O'Mara, B.J., and Keyes, C.D. 1981, A spectroscopic study of the high excitation nebula NGC 6302, M.N.R.A.S., 197, 95.
- Allocchio, C., Morossi, C., and Vladilo, G. 1984, The IUE blaze function in the Mg II region, A. & A., 130, 410.

Alloin, D., Boisson, C., and Pelat, D. 1988, Evidence for an accretion disc in Akn 120, A. & A., 200, 17.

Altamore, A., Angeletti, L., Capuzzo-Dolcetta, R., and Giannone, P. 1981, Ultraviolet spectrophotometry of the galactic globular cluster M5, A. & A., 103, 424.

Altamore, A., Angeletti, L., Capuzzo-Dolcetta, R., and Giannone, P. 1983, On the stellar content of the galactic globular cluster M5, A. & A., 118, 332.

Altamore, A., Baratta, G.B., Cassatella, A., Grasdalen, G.L., Persi, P., and Viotti, R. 1980, Ultraviolet, optical, and infrared observations of the Herbig Be star HD 200775, A. & A., 90, 290.

Altamore, A., Baratta, G.B., Cassatela, A., Friedjung, M., Giangrande, A., Ricciardi, O., and Viotti, R. 1981, Ultraviolet and coordinated ground-based observations of Z Andromedae, Ap. J., 245, 630.

Altamore, A., Giangrande, A., and Viotti, R. 1982, The ultraviolet spectrum of KQ Puppis (Boss 1985), A. & A. Suppl., 49, 511.

Altamore, A., Rossi, C., Rossi, L., and Villada de Arnedo, M. 1990, The ultraviolet spectrum of solar analogs, A. & A., 234, 332.

Altner, B., Chapman, R.D., Kondo, Y., and Stencel, R.E. 1986, Scattered light in the IUE spectra of Epsilon Aurigae, A. & A. Suppl., 65, 199.

Ambruster, C.W., Pettersen, B.R., and Sundland, S.R. 1989, High resolution IUE observations of the flare star AD Leonis: implications for the Mg II Wilson-Bappu effect, A. & A., 208, 198.

Andrews, A.D., Rodono, M., Linsky, J.L., Brown, A., Butler, C.J., Catalano, S., Scaltriti, F., Busso, M., Il-Seong Nha, Oh, J.Y., Henry, M.C.D., Hopkins, J.L., Landis, H.J., and Engelbrektson, S. 1988, Rotational modulation and flares on RS CVn and BY Dra stars. IX. IUE spectroscopy and photometry of II Peg and V711 Tau during February 1983, A. & A., 204, 177.

Angelini, L., Osborne, J.P., and Stella, L. 1990, The changing soft X-ray light curve of the AM HER system MR Serpentis (PG 1550+191), M.N.R.A.S., 245, 652.

Antonucci, R.R.J., and Cohen, R.D. 1983, Time development of the emission lines and continuum of NGC 4151, Ap. J., 271, 564.

Apparao, K.M.V., and Tarafdar, S.P. 1988, Optical and ultraviolet line and continuum emission from the Large Magellanic Cloud X-ray Be star A0538-66, Ap. J., 335, 147.

Appenzeller, I., Chavarria, C., Krautter, J., Mundt, R., and Wolf, B. 1980, UV spectrograms of T Tauri stars, A. & A., 90, 184.

Appenzeller, I., and Wolf, B. 1979, The satellite-UV spectrum of S CrA, A. & A., 75, 164.

Appenzeller, I., and Wolf, B. 1979, IUE observations of the extreme B1 supergiant Zeta Sco, A. & A. Suppl., 38, 51.

Arellano Ferro, A., and Madore, B.F. 1985, Discovery of the hot companion to the two-day Cepheid HD 129708, Observatory, 105, 207.

Artru, M.-C. 1986, Autoionizing levels in Si II and identifications of the 1400 Å feature of Ap-Si stars, A. & A., 168, L5.

Artru, M.-C., Borsenberger, J., and Lanz, T. 1989, The IUE spectral atlas of two normal B stars: Pi Ceti and Nu Capricorni (125-198 nm), A. & A. Suppl., 80, 17.

Artru, M.-C., and Freire-Ferrero, R. 1988, Line variations in the ultra-violet spectrum of the Ap-Si star HD 25823, A. & A., 203, 111.

Artru, M.-C., and Lanz, T. 1987, Silicon absorption in UV spectra of ApSi stars, A. & A., 182, 273.

Augarde, R., Figon, P., Vanderriest, C., and Lemonnier, J.P. 1990, Spectro-imagery of small diameter galaxies. I. Markarian 600 = MCG 1-08-008, A. & A., 233, 348.

Augarde, R., and Lequeux, J. 1985, Peculiar motions and star formation in the interacting galaxy complex Mk 171 = NGC 3690+IC 694, A. & A., 147, 273.

- Auriere, M., Adams, S., and Seaton, M.J. 1983, Ultraviolet and optical observations of two stars belonging to the blue horizontal branch of the globular cluster M15, M.N.R.A.S., 205, 571.
- Avcioglu, K., and Mentese, H.H. 1989, Ultraviolet studies of the interstellar gas in the direction of the stars AE Aur (09.5 V) and Theta-2 Ori A (09.0 V), *Astrophys. Sp. Sci.*, 151, 227.
- Avcioglu, M., Turker Ozkan, M., and Huseyin Mentese, H. 1990, Comparison of the near-ultraviolet continuum and chromospheric emission line fluxes of the late-type giant stars, *Astrophys. Sp. Sci.*, 164, 263.
- Aydin, C., Brandi, E., Engin, S., Ferrer, O.E., Hack, M., Sahade, J., Solivella, G., and Yilmaz, N. 1988, A study of the continuum flux and the line structure in the IUE spectrum of Beta Lyrae, *A. & A.*, 193, 202.
- Ayres, T.R. 1984, The many faces of Capella: a search for rotational modulations and a study of systematic velocities of emission lines in the ultraviolet, *Ap. J.*, 284, 784.
- Ayres, T.R. 1985, Alpha Trianguli Australis (K2 II-III): hybrid or composite?, *Ap. J.*, 291, L7.
- Ayres, T.R. 1986, Far-ultraviolet fluorescence of carbon monoxide in the red giant Arcturus. II. Analysis of high-dispersion IUE spectra, *Ap. J.*, 308, 246.
- Ayres, T.R. 1988, A spectral dissection of the ultraviolet emissions of Capella, *Ap. J.*, 331, 467.
- Ayres, T.R. 1990, Signal-to-noise ratios in IUE SWP-L0 spectra of chromospheric emission-line sources, *P.A.S.P.*, 102, 1420.
- Ayres, T.R., Eriksson, K., Linsky, J.L., and Stencel, R.E. 1983, The narrow ultraviolet emission lines of the red dwarf AU Microscopii (dM1.6e), *Ap. J.*, 270, L17.
- Ayres, T.R., Jensen, E., and Engvold, O. 1988, Redshifts of high-temperature emission lines in the far-ultraviolet spectra of late-type stars. II. New, precise measurements of dwarfs and giants, *Ap. J. Suppl.*, 66, 51.
- Ayres, T.R., Judge, P., Jordan, C., Brown, A., and Linsky, J.L. 1986, High-dispersion observations of Alpha Bootis (K1 III) with the International Ultraviolet Explorer, *Ap. J.*, 311, 947.

- Ayres, T.R., and Linsky, J.L. 1980, Outer atmospheres of cool stars. III. IUE spectra and transition region models for Alpha Centauri A and B, Ap. J., 235, 76.
- Ayres, T.R., and Linsky, J.L. 1980, Outer atmospheres of cool stars. V. IUE observations of Capella: the rotation-activity connection, Ap. J., 241, 279.
- Ayres, T.R., and Linsky, J.L. 1982, Outer atmospheres of cool stars. X. HR 1099 at quadrature, Ap. J., 254, 168.
- Ayres, T.R., Linsky, J.L., Basri, G.S., Landsman, W., Henry, R.C., Moos, H.W., and Stencel, R.E. 1982, Outer atmospheres of cool stars. XI. High-dispersion IUE spectra of five late-type dwarfs and giants, Ap. J., 256, 550.
- Ayres, T.R., Linsky, J.L., Simon, T., Jordan, C., and Brown, A. 1983, Outer atmospheres of cool stars. XV. High-dispersion ultraviolet studies of active chromosphere G-K dwarfs, Ap. J., 274, 784.
- Ayres, T.R., Marstad, N.C., and Linsky, J.L. 1981, Outer atmospheres of cool stars. IX. A survey of ultraviolet emission from F-K dwarfs and giants with IUE, Ap. J., 247, 545.
- Ayres, T.R., Moos, H.W., and Linsky, J.L. 1981, Far-ultraviolet fluorescence of carbon monoxide in the red giant Arcturus, Ap. J., 248, L137.
- Ayres, T.R., Schiffer III, F.H., and Linsky, J.L. 1983, Outer atmospheres of cool stars. XIII. Capella at critical phases, Ap. J., 272, 223.
- Ayres, T.R., Simon, T., and Linsky, J.L. 1982, Evolution of chromospheres and coronae in solar mass stars: a far-ultraviolet and soft X-ray comparison of Arcturus (K2 III) and Alpha Centauri A (G2 V), Ap. J., 263, 791.
- Ayres, T.R., Simon, T., and Linsky, J.L. 1984, Sigma Geminorum (K1 III + ?): variability of the ultraviolet emission lines near conjunction, Ap. J., 279, 197.
- Ayres, T.R., Stencel, R.E., Linsky, J.L., Simon, T., Jordan, C., Brown, A., and Engvold, O. 1983, Redshifts of high-temperature emission lines in the far-ultraviolet spectra of late-type stars, Ap. J., 274, 801.

Baines, K. H., and Smith, W. H. 1990, The atmospheric structure and dynamical properties of Neptune derived from ground-based and IUE spectrophotometry, *Icarus*, 85, 65.

Baird, S. R., and Cardelli, J. A. 1985, The 2200 Å circumstellar dust absorption feature in the spectra of three bright RV Tauri stars, *Ap. J.*, 290, 689.

Bajtlik, S., Duncan, R. C., and Ostriker, J. P. 1988, Quasar ionization of Lyman-alpha clouds: the proximity effect, a probe of the ultraviolet background at high redshift, *Ap. J.*, 327, 570.

Baldwin, J. A., Rees, M. J., Longair, M. S., and Perryman, M. A. C. 1978, The Lyman alpha/H beta/Paschen alpha ratio in the quasar PG 0026+129, *Ap. J.*, 226, L57.

Baldwin, J. A., Wampler, E. J., and Gaskell, C. M. 1989, Emission-line properties of optically and radio-selected complete quasar samples, *Ap. J.*, 338, 630.

Baliunas, S. L. 1983, Progress in stellar chromospheres observed with the International Ultraviolet Explorer satellite, *P.A.S.P.*, 95, 532.

Baliunas, S. L., and Dupree, A. K. 1982, Ultraviolet and optical spectrum studies of Lambda Andromedae: evidence for atmospheric inhomogeneities, *Ap. J.*, 252, 668.

Baliunas, S. L., Guinan, E. F., and Dupree, A. K. 1984, Ultraviolet flare on Lambda Andromedae, *Ap. J.*, 282, 733.

Baliunas, S. L., Hartmann, L., and Dupree, A. K. 1983, Chromospheric and coronal emissions from the giants in the Hyades, *Ap. J.*, 271, 672.

Baliunas, S. L., and Raymond, J. C. 1984, Ultraviolet and visible flare observations of EQ Pegasi B, *Ap. J.*, 282, 728.

Ballester, G. E., Moos, H. W., Feldman, P. D., Strobel, D. F., Summers, M. E., Bertaux, J.-L., Skinner, T. E., Festou, M. C., and Lieske, J. H. 1987, Detection of neutral oxygen and sulfur emissions near Io using IUE, *Ap. J.*, 319, L33.

- Ballester, G.E., Strobel, D.F., Moos, H.W., and Feldman, P.D. 1990, The atmospheric abundance of SO₂ on Io, *Icarus*, 88, 1.
- Band, D.L., and Malkan, M.A. 1989, Synthesis of accretion disk and nonthermal source models for active galactic nuclei, *Ap. J.*, 345, 122.
- Barbaro, G., and Olivi, F.M. 1989, Models of spectral energy distributions of elliptical galaxies, *Ap. J.*, 337, 125.
- Barbero, J., Brocato, E., Cassatella, A., Castellani, V., and Geyer, E.H. 1990, The age calibration of integrated ultraviolet colors and young stellar clusters in the Large Magellanic Cloud, *Ap. J.*, 351, 98.
- Barker, P.K. 1984, Ripple correction of high-dispersion IUE spectra: blazing echelles, *A.J.*, 89, 899.
- Barker, P.K., and Marlborough, J.M. 1985, Carbon IV absorption troughs in the ultraviolet spectra of Be stars: Gone with the wind?, *Ap. J.*, 288, 329.
- Barker, T. 1982, The ionization structure of the ring nebula. II. Ultraviolet observations, *Ap. J.*, 253, 167.
- Barker, T. 1983, The ionization structure of planetary nebulae. III. NGC 7009, *Ap. J.*, 267, 630.
- Barker, T. 1984, The ionization structure of planetary nebulae. IV. NGC 6853, *Ap. J.*, 284, 589.
- Barker, T. 1985, The ionization structure of planetary nebulae. V. NGC 3242, *Ap. J.*, 294, 193.
- Barker, T. 1986, The ionization structure of planetary nebulae. VI. NGC 7662, *Ap. J.*, 308, 314.
- Barker, T. 1987, The ionization structure of planetary nebulae. VII. New observations of the Ring Nebula, *Ap. J.*, 322, 922.
- Barker, T. 1988, The ionization structure of planetary nebulae. VIII. NGC 6826, *Ap. J.*, 326, 164.
- Barker, T. 1989, The ionization structure of planetary nebulae. IX. NGC 1535, *Ap. J.*, 340, 921.

- Barlow, M.J., Brodie, J.P., Brunt, C.C., Hanes, D.A., Hill, P.W., Mayo, S.K., Pringle, J.E., Ward, M.J., Watson, M.G., Whelan, J.A.J., and Willis, A.J. 1981, The 1979 outburst of U Scorpii, M.N.R.A.S., 195, 61.
- Barlow, M.J., Morgan, B.L., Standley, C., and Vine, H. 1986, The determination of the mass of a Magellanic Cloud planetary nebula by speckle interferometry, M.N.R.A.S., 223, 151.
- Barlow, M.J., Smith, L.J., and Willis, A.J. 1981, Mass-loss rates for 21 Wolf-Rayet stars, M.N.R.A.S., 196, 101.
- Barr, P., Willis, A.J., and Wilson, R. 1983, The ultraviolet variability of NGC 3783, M.N.R.A.S., 202, 453.
- Barr, P., Willis, A.J., and Wilson, R. 1983, IUE observations of X-ray selected Seyfert galaxies, M.N.R.A.S., 203, 201.
- Barral, J.F., Canto, J., Meaburn, J., and Walsh, J.R. 1982, The physical conditions within the poly-polar nebula NGC 6302. III, M.N.R.A.S., 199, 817.
- Barry, D.C., and Schoolman, S.A. 1982, Low-resolution Mg II h and k observations of solar type stars, Ap. J., 261, 220.
- Barsella, B., Panagia, N., and Perinotto, M. 1982, The graphite rich Cepheus OB3 association, A. & A., 111, 130.
- Barstow, M.A., and Holberg, J.B. 1990, The photospheric temperatures and composition of very hot He-rich white dwarfs, M.N.R.A.S., 245, 370.
- Barstow, M.A., and Tweedy, R.W. 1990, The photospheric temperature and metal abundance of the compact star H1504+65, M.N.R.A.S., 242, 484.
- Barylak, M., and Doazan, V. 1986, Luminosity and colour variations of 88 Her through phase changes from the far UV to the visual region. I. A confrontation with tradition Be-star modelling, A. & A., 159, 65.
- Barylak, M., and Rakos, K.D. 1983, Investigation of IUE spectra of the Cp star ET And (HD 219749), A. & A., 127, 366.

- Baschek, B., Heck, A., Jaschek, C., Jaschek, M., Koppen, J., Scholz, M., and Wehrse, R. 1984, The ultraviolet (IUE) spectra of the Lambda Bootis stars, *A. & A.*, 131, 378.
- Baschek, B., Hoflich, P., and Scholz, M. 1982, The OB subdwarf Feige 66, a chemical-composition twin to HD 149382, *A. & A.*, 112, 76.
- Baschek, B., Kudritzki, R.P., Scholz, M., and Simon, K.P. 1982, Spectral analysis of the OB subdwarf HD 149382, *A. & A.*, 108, 387.
- Baschek, B., and Slettebak, A. 1988, The chemical composition of the Lambda Bootis stars, *A. & A.*, 207, 112.
- Basri, G. 1987, Stellar activity in synchronized binaries. II. A correlation analysis with single stars, *Ap. J.*, 316, 377.
- Basri, G., Clarke, J.T., and Haisch, B.M. 1985, An analysis of scattered light in low-dispersion IUE spectra, *A. & A.*, 144, 161.
- Basri, G., Laurent, R., and Walter, F.M. 1985, Stellar activity in synchronized binaries. I. Dependence on rotation, *Ap. J.*, 298, 761.
- Basri, G.S., and Linsky, J.L. 1979, Outer atmospheres of cool stars. II. MgII flux profiles and chromospheric radiative loss rates, *Ap. J.*, 234, 1023.
- Basri, G.S., Linsky, J.L., and Eriksson, K. 1981, Outer atmospheres of cool stars. VII. IUE observations and chromo-spheric models for the supergiant stars Beta Draconis, Epsilon Geminorum, and Alpha Orionis, *Ap. J.*, 251, 162.
- Bassani, L., Butler, R.C., Di Cocco, G., Ventura, A.D., Perotti, F., Villa, G., Baker, R.E., Dean, A.J., and Lee, T.J. 1986, A broad-band contemporaneous study of the Seyfert galaxy NGC 4151, *Ap. J.*, 311, 623.
- Bassani, L., Coe, M.J., Malkan, M.A., Mandolesi, N., Partridge, B., and Spinoglio, L. 1989, A new narrow-line Seyfert 1 galaxy: IRAS 1652+395, *Ap. J.*, 344, 726.
- Bates, B., Brown-Kerr, W., Giaretta, D.L., and Keenan, F.P. 1983, IUE observations of high velocity interstellar gas tentatively associated with Radio Loop II, *A. & A.*, 122, 64.

- Bates, B., Catney, M.G., and Keenan, F.P. 1988, IRAS maps for a region of sky containing nearby high-velocity gas, identified from IUE spectra, *Astrophys. Sp. Sci.*, 146, 195.
- Bates, B., Catney, M.G., and Keenan, F.P. 1990, High-velocity gas components towards 4 Lac, *M.N.R.A.S.*, 242, 267.
- Bates, B., Giaretta, D.L., and Brown-Kerr, W. 1981, IUE observations of high-velocity components in spectra of Beta Orionis, *M.N.R.A.S.*, 195, 9P.
- Bates, B., Giaretta, D.L., McCartney, D.J., McQuoid, J.A., and Bankhead, R.E.L. 1980, IUE and balloon spectral observations of mass loss from Beta Orionis, *M.N.R.A.S.*, 190, 611.
- Bates, B., and Gilheany, S. 1990, IUE observations of mass-loss spectral features in B5-B9 supergiants, *M.N.R.A.S.*, 243, 320.
- Bath, G.T., and Pringle, J.E. 1982, The evolution of viscous discs - III. Giant discs in symbiotic stars, *M.N.R.A.S.*, 201, 345.
- Bath, G.T., Pringle, J.E., and Whelan, J.A.J. 1980, Spectrophotometry of dwarf novae in the wavelength range 1250-7500 Å, *M.N.R.A.S.*, 190, 185.
- Bauer, W.H., and Stencel, R.E. 1989, Line identifications in the ultraviolet spectrum of 31 Cygni, *Ap. J. Suppl.*, 69, 667.
- Bechtold, J., Czerny, B., Elvis, M., Fabbiano, G., and Green, R.F. 1987, X-ray spectra of PG quasars. II. The X-ray-ultraviolet excess of PG 1211+143, *Ap. J.*, 314, 699.
- Bechtold, J., Green, R.F., Weymann, R.J., Schmidt, M., Estabrook, F.B., Sherman, R.D., Wahlquist, H.D., and Heckman, T.M. 1984, IUE observations of high-redshift quasars, *Ap. J.*, 281, 76.
- Beckman, J.E., Crivellari, L., and Selvelli, P.L. 1982, The spectra of late-type dwarfs and sub-dwarfs in the near ultra-violet. I. Line identifications, *A. & A. Suppl.*, 47, 295.
- Belton, M.J.S. 1990, Rationalization of Comet Halley's periods, *Icarus*, 86, 30.

Belyakina, T.S., Bondar, N.I., Chochol, D., Chuvaev, K.K., Efimov, Y.S., Gershberg, R.E., Grygar, J., Hric, L., Krasnobabtsev, V.I., Piirola, V., Poutanen, M., Savanov, I.S., Huovelin, J., Tuominen, I., Shakhovskaya, N.I., Shakhovskoy, N.M., Shenavrin, V.I., and Shcherbakov, A.G. 1989, The Kuwano-Honda's peculiar object (PU Vulpeculae) in 1983-1986, *A. & A.*, 223, 119.

Benacchio, L., and Galletta, G. 1981, UV observations of the nucleus of NGC 3077, *Ap. J.*, 243, L65.

Bennett, J.O., and Ayres, T.R. 1988, Empirical continuum modeling for IUE low-dispersion spectra, *P.A.S.P.*, 100, 1129.

Bensammar, S., Friedjung, M., Muratorio, G., and Viotti, R. 1983, The LMC emission line star S22 (=HD 34664). III. Ultraviolet to infrared energy distribution, *A. & A.*, 126, 427.

Benvenuti, P., Casini, C., and Heidmann, J. 1979, IUE UV spectra of the clumpy irregular galaxy MKN 297, *Nature*, 282, 272.

Benvenuti, P., Casini, C., and Heidmann, J. 1982, IUE spectra of clumpy irregular galaxies, *M.N.R.A.S.*, 198, 825.

Benvenuti, P., D'Odorico, S., and Dopita, M.A. 1979, UV spectrum of supernova remnant reveals carbon depletion in the interstellar medium, *Nature*, 277, 99.

Benvenuti, P., Dopita, M., and D'Odorico, S. 1980, Far-ultraviolet spectrophotometry of supernova remnants: observations and astrophysical interpretation, *Ap. J.*, 238, 601.

Benvenuti, P., and Perinotto, M. 1981, An ultraviolet study of NGC 7662, *A. & A.*, 95, 127.

Benvenuti, P., and Porceddu, I. 1989, Diffuse absorption bands and the 2175 Å feature: results from a sample of galactic stars, *A. & A.*, 223, 329.

Bergeron, J., D'Odorico, S., and Kunth, D. 1987, Comprehensive study of the QSO-galaxy pair 1327-206 and the extent of low ionization galactic haloes, *A. & A.*, 180, 1.

Bergeron, J., and Kunth, D. 1983, Three low-redshift quasars with absorption systems: IUE and optical observations, *M.N.R.A.S.*, 205, 1053.

Bergeron, J., Maccacaro, T., and Perola, C. 1981, Far UV study on the non-thermal activity in the narrow line galaxies NGC 4507 and NGC 5506, *A. & A.*, 97, 94.

Bergoffen, M.J., Stocke, J., Walter, F., and Fleming, T.A. 1988, IUE observations of X-ray-selected stars, *P.A.S.P.*, 100, 736.

Bergoffen, M.J., and Van Buren, D. 1988, IUE observations of stars in the neighborhood of the Lambda Orionis nebula, *A.J.*, 95, 130.

Bergvall, N. 1985, Star formation and chemical abundances in the blue compact galaxy ESO 338-IG04, *A. & A.*, 146, 269.

Bernabeu, G., Magazzu, A., and Stalio, R. 1989, Stellar wind velocities and luminosities of O stars, *A. & A.*, 226, 215.

Bernacca, P.L., and Bianchi, L. 1981, IUE observations of X Persei, the proposed optical counterpart of the X-ray source 4U0352+30, *A. & A.*, 94, 345.

Bernacca, P.L., Bianchi, L., Dorren, J.D., and Perrymann, M.A.C. 1983, IUE spectrophotometry of X Persei (4U 0352+30), *A. & A.*, 122, 17.

Bernat, A.P. 1982, International Ultraviolet Explorer observations of Alpha Scorpii, *Ap. J.*, 252, 644.

Bertola, F., Capaccioli, M., and Oke, J.B. 1982, IUE observations of NGC 4649, an elliptical galaxy with a strong ultraviolet flux, *Ap. J.*, 254, 494.

Bertola, F., Capaccioli, M., Holm, A.V., and Oke, J.B. 1980, IUE observations of M87, *Ap. J.*, 237, L65.

Bertola, F., Casini, C., Bettoni, D., Galletta, G., Noreau, L., and Kronberg, P.P. 1984, NGC 3448 revisited: a combined optical, radio, and UV investigation, *A.J.*, 89, 350.

Bertola, F., Gregg, M.D., Gunn, J.E., and Oemler Jr., A. 1986, The stellar population of NGC 6166, *Ap. J.*, 303, 624.

- Bertout, C., Basri, G., and Bouvier, J. 1988, Accretion disks around T Tauri stars, *Ap. J.*, 330, 350.
- Beuermann, K., and Thomas, H.-C. 1990, Detection of emission lines from the secondary star in IX Velorum (=CPD-48 1577), *A. & A.*, 230, 326.
- Beust, H., Lagrange-Henri, A.M., Vidal-Madjar, A., and Ferlet, R. 1989, The Beta Pictoris circumstellar disk. IX. Theoretical results on the infall velocities of Ca II, Al III, and Mg II, *A. & A.*, 223, 304.
- Beust, H., Lagrange-Henri, A.M., Vidal-Madjar, A., and Ferlet, R. 1990, The Beta Pictoris circumstellar disk. X. Numerical simulations of infalling evaporating bodies, *A. & A.*, 236, 202.
- Bhardwaj, A., Haider, S.A., and Singhal, R.P. 1990, Auroral and photoelectron fluxes in cometary ionospheres, *Icarus*, 85, 216.
- Bhatia, A.K., and Underhill, A.B. 1986, The statistical equilibrium of hydrogen and helium in a radiation field, with an application to interpreting Wolf-Rayet spectra, *Ap. J. Suppl.*, 60, 323.
- Bhatia, A.K., and Underhill, A.B. 1988, Carbon and nitrogen lines in the spectra of Wolf-Rayet stars, *Ap. J. Suppl.*, 67, 187.
- Bianchi, L., and Bernacca, P.L. 1980, IUE observations of HD 102567, the proposed optical counterpart of 4U1145-61, *A. & A.*, 89, 214.
- Bianchi, L., and Bohlin, R.C. 1984, Quantification of the order overlap problem for IUE high resolution spectra (SWP camera). A correction algorithm, *A. & A.*, 134, 31.
- Bianchi, L., Cerrato, S., and Grewing, M. 1986, Mass loss from central stars of planetary nebulae: the nucleus of NGC 6543, *A. & A.*, 169, 227.
- Bianchi, L., and Grewing, M. 1987, NGC 40: IUE observations of the nucleus, *A. & A.*, 181, 85.
- Bianchi, L., Grewing, M., and Kappelmann, N. 1985, Simultaneous ultraviolet and optical observations of FK Comae, *A. & A.*, 149, 41.

- Bianchi, L., and Pakull, M. 1985, The first IUE observations of LMC X-1 (star 32), A. & A., 146, 242.
- Bianchini, A., and Sabadin, F. 1983, The old nova GK Per (1901). III. Accretion disc models, A. & A., 125, 112.
- Bica, E., and Alloin, D. 1988, Constraints provided by star cluster spectra on the nature of the UV turn-up in giant elliptical galaxies, A. & A., 192, 98.
- Bica, E., Alloin, D., and Schmidt, A.A. 1990, Star formation history and chemical enrichment in the nuclear regions of M31 and its dwarf companions M32 and NGC 205, A. & A., 228, 23.
- Binette, L., Prieto, A., Szuszkiewicz, E., and Zheng, W. 1989, Relation between the ionizing continuum and the emission lines in Fairall 9, Ap. J., 343, 135.
- Black, J.H., Dupree, A.K., Hartmann, L.W., and Raymond, J.C. 1980, Highly-ionized species in the interstellar medium, Ap. J., 239, 502.
- Blades, J.C., Hunstead, R.W., Murdoch, H.S., and Pettini, M. 1985, The near-ultraviolet spectrum of the high-redshift BL Lacertae object 0215+015, Ap. J., 288, 580.
- Blades, J.C., and Morton, D.C. 1983, Interstellar absorption lines in the directions of extragalactic objects - I., M.N.R.A.S., 204, 317.
- Blades, J.C., Wheatley, J.M., Panagia, N., Grewing, M., Pettini, M., and Wamsteker, W. 1988, Abundances in intermediate-velocity clouds toward SN 1987A, Ap. J., 332, L75.
- Blades, J.C., Wheatley, J.M., Panagia, N., Grewing, M., Pettini, M., and Wamsteker, W. 1988, An ultraviolet spectral atlas of interstellar lines toward SN 1987A, Ap. J., 334, 308.
- Blair, W.P., Raymond, J.C., Danziger, J., and Matteucci, F. 1989, The ultraviolet spectrum of an oxygen-rich supernova remnant in the Small Magellanic Cloud, Ap. J., 338, 812.
- Blair, W.P., Raymond, J.C., Dupree, A.K., Wu, C.-C., Holm, A.V., and Swank, J.H. 1984, IUE observations of Centaurus X-4 during the 1979 May outburst, Ap. J., 278, 270.

Blair, W.P., Raymond, J.C., Fesen, R.A., and Gull, T.R. 1984, Ultraviolet observations of the peculiar supernova remnant in NGC 4449, *Ap. J.*, 279, 708.

Blanco, A., Fonti, S., and Strafella, F. 1988, The circumstellar environment of the Herbig Ae/Be stars. The case of AB Aurigae, *A. & A.*, 197, 249.

Blanco, C., Bruca, L., Catalano, S., and Marilli, E. 1982, Chromospheric Mg II emission in A5 to K5 main sequence stars from high resolution IUE spectra, *A. & A.*, 115, 280.

Blanco, C., Catalano, S., and Marilli, E. 1979, IUE observations of an active region of HD 206860, *Nature*, 280, 661.

Blomme, R. 1990, The terminal velocity of the stellar wind in O-type stars, *A. & A.*, 229, 513.

Blomme, R., and Hensberge, H. 1985, The outer layers of the Beta Cephei stars BW Vul and Sigma Sco, *A. & A.*, 148, 97.

Blomme, R., and Van Rensbergen, W. 1988, Mass loss and C IV ionization in the stellar wind of OB stars, *A. & A.*, 207, 70.

Blondel, P.F.C., Tjin A Djie, H.R.E., and The, P.S. 1989, The variable Herbig Ae star HR 5999. IX. Variability in the UV shell lines, *A. & A. Suppl.*, 80, 115.

Boehm, C., Ferluga, S., and Hack, M. 1984, The eclipse of Epsilon Aurigae in the ultraviolet, *A. & A.*, 130, 419.

Boesgaard, A.M., and Simon, T. 1984, Rotational modulation of the chromospheric activity in Chi 1 Orionis (G0 V), *Ap. J.*, 277, 241.

Boffin, H.M.J., and Jorissen, A. 1989, HD 145206: the first semibarrium star with a main-sequence close companion?, *A. & A.*, 224, L31.

Boggess, A., Bohlin, R.C., Evans, D.C., Freeman, H.R., Gull, T.R., Heap, S.R., Klinglesmith, D.A., Longanecker, G.R., Sparks, W., West, D.K., Holm, A.V., Perry, P.M., Schiffer III, F.H., Turnrose, B.E., Wu, C.-C., Lane, A.L., Linsky, J.L., Savage, B.D., Benvenuti, P., Cassatella, A., Clavel, J., Heck, A., Macchietto, F., Penston, M.V., Selvelli, P.L., Dunford, E., Gondhalekar, P., Oliver, M.B., Sandford, M.C.W., Stickland, D., Boksenberg, A., Coleman, C.I., Snijders, M.A.J., and Wilson, R. 1978, In-flight performance of the IUE, *Nature*, 275, 377.

Boggess, A., Carr, F.A., Evans, D.C., Fischel, D., Freeman, H.R., Fuechsel, C.F., Klinglesmith, D.A., Krueger, V.L., Longanecker, G.W., Moore, J.V., Pyle, E.J., Rebar, F., Sizemore, K.O., Sparks, W., Underhill, A.B., Vitagliano, H.D., West, D.K., Macchett, F., Fitton, B., Barker, P.J., Dunford, E., Gondhalekar, P.M., Hall, J.E., Harrison, V.A.W., Oliver, M.B., Sandford, M.C.W., Vaughan, P.A., Ward, A.K., Anderson, B.E., Boksenberg, A., Coleman, C.I., Snijders, M.A.J., and Wilson, R. 1978, The IUE spacecraft and instrumentation, *Nature*, 275, 372.

Boggess, A., Daltabuit, E., Torres-Peimbert, S., Estabrook, F.B., Wahlquist, H.D., Lane, A.L., Green, R., Oke, J.B., Schmidt, M., Zimmerman, B., Morton, D.C., and Roeder, R.C. 1979, IUE observations of the quasar 3C273, *Ap. J.*, 230, L131.

Boggs, D., and Bohm-Vitense, E. 1989, Ultraviolet extinction differences within NGC 6530, *Ap. J.*, 339, 209.

Boggs, D., and Bohm-Vitense, E. 1990, Ultraviolet gas absorption and dust extinction toward M8, *Ap. J.*, 358, 441.

Bohlin, R.C. 1986, The ultraviolet calibration of the Hubble Space Telescope. I. Secondary standards of absolute ultraviolet flux and the recalibration of IUE, *Ap. J.*, 308, 1001.

Bohlin, R.C., Cornett, R.H., Hill, J.K., Hill, R.S., and Stecher, T.P. 1988, Images in the rocket ultraviolet: UV fluxes of M31 globular clusters, *Ap. J.*, 334, 657.

Bohlin, R.C., Cornett, R.H., Hill, J.K., Smith, A.M., and Stecher, T.P. 1983, Images in the rocket ultraviolet: the starburst in the nucleus of M83, *Ap. J.*, 274, L53.

Bohlin, R.C., Cornett, R.H., Hill, J.K., Smith, A.M., Stecher, T.P., and Sweigart, A.V. 1983, Discovery of a nitrogen-rich UV-bright star in the globular cluster M5, *Ap. J.*, 267, L89.

Bohlin, R.C., and Grillmair, C.J. 1988, The ultraviolet calibration of the Hubble Space Telescope. II. A correction for the change in sensitivity of the SWP camera on the IUE, *Ap. J. Suppl.*, 66, 209.

Bohlin, R.C., and Grillmair, C.J. 1988, The ultraviolet calibration of the Hubble Space Telescope. III. A correction for the change in sensitivity of the LWR camera on IUE, *Ap. J. Suppl.*, 68, 487.

- Bohlin, R.C., Harrington, J.P., and Stecher, T.P. 1982, IUE observations of the central stars of the planetary nebulae NGC 6853 and NGC 7293, Ap. J., 252, 635.
- Bohlin, R.C., Harris, A.W., Holm, A.V., and Gry, C. 1990, The ultraviolet calibration of the Hubble Space Telescope. IV. Absolute IUE fluxes of Hubble Space Telescope standard stars, Ap. J. Suppl., 73, 413.
- Bohlin, R.C., Holm, A.V., Savage, B.D., Snijders, M.A.J., and Sparks, W.M. 1980, Photometric calibration of the IUE: low dispersion, A. & A., 85, 1.
- Bohlin, R.C., and Savage, B.D. 1981, Ultraviolet interstellar extinction toward stars in the Orion Nebula and toward HD 147889, Ap. J., 249, 109.
- Bohm-Vitense, E. 1980, A comparison of the Mg resonance lines in Am and non-Am stars of similar temperatures, A. & A., 92, 219.
- Bohm-Vitense, E. 1980, The white dwarf companion of the barium star Zeta Capricorni, Ap. J., 239, L79.
- Bohm-Vitense, E. 1981, Far-ultraviolet energy distributions of the metal-poor A stars HD 109995 and HD 161817, Ap. J., 243, 213.
- Bohm-Vitense, E. 1981, Interstellar absorption in the MgII resonance line k2 and h2 emissions, Ap. J., 244, 504.
- Bohm-Vitense, E. 1981, The ultraviolet energy distributions of late A stars, Ap. J., 244, 938.
- Bohm-Vitense, E. 1982, The Mg II resonance line emission at 2800 Å in stars with different rotational velocities and different metal abundances, Ap. J., 258, 628.
- Bohm-Vitense, E. 1985, Cepheid distances from blue main-sequence companions, Ap. J., 296, 169.
- Bohm-Vitense, E. 1986, The Cepheid mass problem and Cepheid binaries, Ap. J., 303, 262.
- Bohm-Vitense, E., Boggs, D., and Morgan, S. 1989, Effects of SN 1987A on the interstellar medium around it, A.J., 97, 131.

- Bohm-Vitense, E., Bohm, K.H., Cardelli, J.A., and Nemec, J.M. 1982, The ultraviolet continuous and emission-line spectra of the Herbig-Haro objects HH 2 and HH 1, Ap. J., 262, 224.
- Bohm-Vitense, E., Clark, M., Cottrell, P.L., and Wallerstein, G. 1990, The dynamical mass of S Muscae, A.J., 99, 353.
- Bohm-Vitense, E., and Dettmann, T. 1980, The boundary line in the H-R diagram for stellar chromospheres and the theory of convection, Ap. J., 236, 560.
- Bohm-Vitense, E., Dettmann, T., and Kapranidis, S. 1979, On the energy distribution in Sirius B, Ap. J., 232, L189.
- Bohm-Vitense, E., Hodge, P., and Boggs, D. 1984, The ultraviolet spectra of the O and B stars in the young galactic cluster NGC 6530, Ap. J., 287, 825.
- Bohm-Vitense, E., Hodge, P., and Proffitt, C. 1985, Ultraviolet studies of stars in the populous cluster NGC 2100 in the Large Magellanic Cloud, Ap. J., 292, 130.
- Bohm-Vitense, E., and Johnson, H.R. 1985, Detection of a compact companion of the mild barium star Xi 1 Ceti, Ap. J., 293, 288.
- Bohm-Vitense, E., Nemec, J., and Proffitt, C. 1984, The problem of the barium stars, Ap. J., 278, 726.
- Bohm-Vitense, E., and Proffitt, C. 1984, Ultraviolet analysis of the peculiar F supergiant HD 112374=HR 4912, P.A.S.P., 96, 897.
- Bohm-Vitense, E., and Proffitt, C. 1985, Blue companions of cepheids, Ap. J., 296, 175.
- Bohm-Vitense, E., and Van Dyk, S.D. 1987, A nonspherically symmetric model for the peculiar A star Alpha-2 CVn, A.J., 93, 1527.
- Bohm-Vitense, E., and Woods, J. 1983, An attempt to determine stellar Lyman-alpha emission-line fluxes for F stars with different metal abundances, Ap. J., 265, 331.

- Bohm, K.H. , and Bohm-Vitense, E. 1982, Ultraviolet radiation from the environment of the Cohen-Schwartz star, Ap. J. , 263, L35.
- Bohm, K.H. , and Bohm-Vitense, E. 1984, The ultraviolet spectrum of a strongly reddened, high-excitation Herbig-Haro object, Ap. J. , 277, 216.
- Bohm, K.H. , Bohm-Vitense, E. , and Brugel, E.W. 1981, The ultraviolet spectrum of Herbig-Haro object 1, Ap. J. , 245, L113.
- Bohm, K.H. , Buhrke, Th. , Raga, A.C. , Brugel, E.W. , Witt, A.N. , and Mundt, R. 1987, Ultraviolet spectra of HH 1 and HH 2: spatial variations and the continuum problem, Ap. J. , 316, 349.
- Boisson, C. , and Durret, F. 1986, The ultraviolet to infrared continuum of ten narrow emission line active galaxies, A. & A. , 168, 32.
- Boksenberg, A. , and Snijders, M.A.J. 1981, IUE observations of the high redshift QSO Q1101-264, M.N.R.A.S. , 194, 353.
- Boksenberg, A. , Snijders, M.A.J. , Wilson, R. , Benvenuti, P. , Clavel, J. , Macchietto, F. , Penston, M.V. , Boggess, A. , Gull, T.R. , Gondhalekar, P. , Lane, A.L. , Turnrose, B. , Wu, C.-C. , Burton, W.M. , Smith, A. , Bertola, F. , Capaccioli, M. , Elvius, A.M. , Fosbury, R. , Tarenghi, M. , Ulrich, M.-H. , Hackney, R.L. , Jordan, C. , Perola, G.C. , Roeder, R.C. , and Schmidt, M. 1978, IUE observations of extragalactic objects, Nature, 275, 404.
- Bond, H.E. , Grauer, A.D. , Green, R.F. , and Liebert, J.W. 1984, Two new extremely hot pulsating white dwarfs, Ap. J. , 279, 751.
- Bonnell, J.T. , and Bell, R.A. 1985, Observations of RR Lyrae and X Arietis with the IUE satellite, P.A.S.P. , 97, 236.
- Bonnet-Bidaud, J.M. , Illovaisky, S.A. , Mouchet, M. , Hammerschlag-Hensberge, G. , van der Klis, M. , Glencross, W.M. , and Willis, A.J. 1981, Ultraviolet observations of LMC X-4 and SMC X-1, A. & A. , 101, 184.
- Bonnet-Bidaud, J.M. , Motch, C. , and Mouchet, M. 1985, The continuum variability of the puzzling X-ray three-period cataclysmic variable 2A0526-328 (TV Col), A. & A. , 143, 313.

Bonnet-Bidaud, J.M., and Mouchet, M. 1987, The anomalous ultraviolet spectrum of the AM Her star H 0538+608, A. & A., 188, 89.

Bonnet-Bidaud, J.M., Mouchet, M., and Motch, C. 1982, First ultraviolet observations of two new cataclysmic variables 1E0643-1648 and 4U1849-31, A. & A., 112, 355.

Bookbinder, J.A., Brugel, E.W., and Brown, A. 1989, Mg II line profiles of the Mira S Carinae, Ap. J., 342, 516.

Bopp, B.W., Africano, J.L., Stencel, R.E., Noah, P.V., and Klimke, A. 1983, Observations of active chromosphere stars, Ap. J., 275, 691.

Bopp, B.W., Ake, T.B., Goodrich, B.D., Africano, J.L., Noah, P.V., Meredith, R.J., Palmer, L.H., and Quigley, R. 1985, HD 8358: a new active chromosphere binary, Ap. J., 297, 691.

Bopp, B.W., Saar, S.H., Ambruster, C., Feldman, P., Dempsey, R., Allen, M., and Barden, S.C. 1989, The active chromosphere binary HD 17433 (VY Arietis), Ap. J., 339, 1059.

Bopp, B.W., and Stencel, R.E. 1981, The FK Comae stars, Ap. J., 247, L131.

Bord, D.J., and Davidson, J.P. 1982, An application of the method of wavelength coincidence statistics to the ultraviolet spectrum of Kappa Cancri, Ap. J., 258, 674.

Bord, D.J., and Davidson, J.P. 1985, IUE data analysis: radial velocities from line coincidence statistics, A. & A., 143, 461.

Bouvier, J. 1990, Rotation in T Tauri stars. II. Clues for magnetic activity, A.J., 99, 946.

Branch, D., and Venkatakrishna, K.L. 1986, On the ultraviolet spectra of type I supernovae, Ap. J., 306, L21.

Brandi, E., Ferrer, O.E., and Sahade, J. 1989, An interpretation of the line profile variations in the IUE spectrum of the Wolf-Rayet binary Gamma-2 Velorum, Ap. J., 340, 1091.

Brandi, E., Garcia, L.G., Kondo, Y., and Sahade, J. 1989, The region of formation of the ultraviolet high temperature resonance lines in the eclipsing binary Beta Persei (Algol), A. & A., 215, 331.

- Brandi, E., and Gosset, E. 1987, The ultraviolet spectrum of the peculiar emission-line star GG Carinae: the line identifications, *A. & A. Suppl.*, 68, 283.
- Brandi, E., Gosset, E., and Swings, J.-P. 1987, The ultraviolet spectrum of the peculiar emission-line star GG Carinae, *A. & A.*, 175, 151.
- Bregman, J.N., Glassgold, A.E., and Huggins, P.J. 1981, Detection of Lyman continuum absorption in the BL Lacertae object PKS 0735+178, *Ap. J.*, 249, 13.
- Bregman, J.N., Glassgold, A.E., Huggins, P.J., Aller, H.D., Aller, M.F., Hodge, P.E., Rieke, G.H., Lebofsky, M.J., Pollack, J.T., Pica, A.J., Leacock, R.J., Smith, A.G., Webb, J., Balonek, T.J., Dent, W.A., O'Dea, C.P., Ku, W.H.-M., Schwartz, D.A., Miller, J.S., Rudy, R.J., and LeVan, P.D. 1984, Multifrequency observations of the BL Lacertae object 0735+178, *Ap. J.*, 276, 454.
- Bregman, J.N., Glassgold, A.E., Huggins, P.J., and Kinney, A.L. 1986, Variability of Lyman-alpha and the ultraviolet continuum of 3C 446, *Ap. J.*, 301, 698.
- Bregman, J.N., Glassgold, A.E., Huggins, P.J., Kinney, A.L., McHardy, I., Webb, J.R., Pollock, J.T., Leacock, R.J., Smith, A.G., Pica, A.J., Aller, H.D., Aller, M.F., Hodge, P.E., Miller, J.S., Stephens, S.A., Dent, W.A., Balonek, T.J., Barvainis, R., Neugebauer, G., Impey, C.D., Soifer, B.T., Matthews, K., Elias, J.H., and Wisniewski, W.Z. 1988, Multifrequency observation of the optically violent variable quasar 3C 446, *Ap. J.*, 331, 746.
- Bregman, J.N., Glassgold, A.E., Huggins, P.J., Neugebauer, G., Soifer, B.T., Matthews, K., Elias, J., Webb, J., Pollock, J.T., Pica, A.J., Leacock, R.J., Smith, A.G., Aller, H.D., Aller, M.F., Hodge, P.E., Dent, W.A., Balonek, T.J., Barvainis, R.E., Roellig, T.P.L., Wisniewski, W.Z., Rieke, G.H., Lebofsky, M.J., Wills, B.J., Wills, D., Ku, W.H.-M., Bregman, J.D., Witteborn, F.C., Lester, D.F., Impey, C.D., and Hackwell, J.A. 1986, Multifrequency observations of the superluminal quasar 3C 345, *Ap. J.*, 301, 708.
- Bregman, J.N., Glassgold, A.E., Huggins, P.J., Neugebauer, G., Soifer, B.T., Matthews, K., Elias, J.H., Webb, J.R., Pollock, J.T., Leacock, R.J., Smith, A.G., Aller, H.D., Aller, M.F., Hughes, P.A., Maccagni, D., Garilli, B., Giommi, P., Miller, J.S., Stephens, S., Balonek, T.J., Dent, W.A., Kinsel, W., Wisniewski, W.Z., Williams, P.M., Brand, P.W.J.L., and Ku, W. H.-M. 1990, Multifrequency observations of BL Lacertae, *Ap. J.*, 352, 574.

Bregman, J.N., Glassgold, A.E., Huggins, P.J., Pollock, J.T., Pica, A.J., Smith, A.G., Webb, J.R., Ku, W.H.M., Rudy, R.J., LeVan, P.D., Williams, P.M., Brand, P.W.J.L., Neugebauer, G., Balonek, T.J., Dent, W.A., Aller, H.D., Aller, M.F., and Hodge, P.E. 1982, Simultaneous observations of the BL Lacertae object I Zw 187, Ap. J., 253, 19.

Briggs, S.A., Snijders, M.A.J., and Boksenberg, A. 1982, Lyman Alpha absorption at a high velocity in NGC 1275, Nature, 300, 336.

Brissenden, R.J.V., Remillard, R.A., Tuohy, I.R., Schwartz, D.A., and Hertz, P.L. 1990, H1722+119: a highly polarized X-ray-selected BL Lacertae object, Ap. J., 350, 578.

Brocato, E., Matteucci, F., Mazzitelli, I., and Tornambe, A. 1990, Synthetic colors and the chemical evolution of elliptical galaxies, Ap. J., 349, 458.

Brodie, J., Bowyer, S., and Tennant, A. 1987, Simultaneous multifrequency observations of Markarian 421, Ap. J., 318, 175.

Bromage, G.E., Boksenberg, A., Clavel, J., Elvius, A., Penston, M.V., Perola, G.C., Pettini, M., Snijders, M.A.J., Tanzi, E.G., and Ulrich, M.-H. 1985, Detailed observations of NGC 4151 with IUE - IV. Absorption line spectrum and variability, M.N.R.A.S., 215, 1.

Bromage, G.E., and Nandy, K. 1983, The conspicuous absence of normal graphite grains in the Small Magellanic Cloud, M.N.R.A.S., 204, 29P.

Bromage, G.E., Phillips, K.J.H., Dufton, P.L., and Kingston, A.E. 1986, Flares on dMe stars: IUE and optical observations of AT Mic, and comparison of far-ultraviolet stellar and solar flares, M.N.R.A.S., 220, 1021.

Brosch, N., and Gondhalekar, P.M. 1984, Gas in cosmic voids, A. & A., 140, L43.

Brosch, N., Mayo Greenberg, J., Rahe, R., and Shaviv, G. 1984, Ultraviolet spectrophotometry of isolated galaxies, A. & A., 135, 330.

Brosius, J.W., and Mullan, D.J. 1986, Models of transition regions in hybrid stars, Ap. J., 301, 650.

- Brosius, J.W., Mullan, D.J., and Stencel, R.E. 1985, Rotational modulation of chromospheric emission in cool giants and "hybrid" stars, Ap. J., 288, 310.
- Brown, A., and Carpenter, K.G. 1984, The temperature of C II emission-line formation regions in cool stars, Ap. J., 287, L43.
- Brown, A., de M. Ferraz, M.C., and Jordan, C. 1984, The chromosphere and corona of T Tauri, M.N.R.A.S., 207, 831.
- Brown, A., and Jordan, C. 1980, Si emission in EUV spectra of late-type stars, M.N.R.A.S., 191, 37P.
- Brown, A., and Jordan, C. 1981, The chromosphere and corona of Procyon (Alpha Canis Minor, F5 IV-V), M.N.R.A.S., 196, 757.
- Brown, A., Jordan, C., Millar, T.J., Gondhalekar, P.M., and Wilson, R. 1981, H₂ emission in the EUV spectrum of T Tauri and Burnham's nebula, Nature, 290, 34.
- Brown, A., Jordan, C., Stencel, R.E., Linsky, J.L., and Ayres, T.R. 1984, High-resolution, far-ultraviolet study of Beta Draconis (G2 Ib-II): transition region structure and energy balance, Ap. J., 283, 731.
- Brown, D.N., Shore, S.N., and Sonneborn, G. 1985, The magnetically controlled stellar wind of HD 21699, A.J., 90, 1354.
- Brown, L.M.J., Robson, E.I., Gear, W.K., Crosthwaite, R.P., McHardy, I.M., Hanson, C.G., Geldzahler, B.J., and Webb, J.R. 1986, The spectral shape and variability of the blazar 3C 446, M.N.R.A.S., 219, 671.
- Brown, L.M.J., Robson, E.I., Gear, W.K., Hughes, D.H., Griffin, M.J., Geldzahler, B.J., Schwartz, P.R., Smith, M.G., Smith, A.G., Shepherd, D.W., Webb, J.R., Valtaoja, E., Terasranta, H., and Salonen, E. 1989, Multifrequency observations of blazars. III. The spectral shape of the radio to X-ray continuum, Ap. J., 340, 129.
- Brugel, E.W., Bohm, K.H., Shull, J.M., and Bohm-Vitense, E. 1985, The unexpected ultraviolet variability of Herbig-Haro object 1, Ap. J., 292, L75.

Brugel, E.W., Shull, J.M., and Seab, C.G. 1982, The ultraviolet spectrum of Herbig-Haro object 2H, Ap. J., 262, L35.

Bruhweiler, F.C., and Cheng, K.-P. 1988, The stellar radiation field and the ionization of H and He in the local interstellar medium, Ap. J., 335, 188.

Bruhweiler, F.C., and Dean, C.A. 1983, Sharp shortward-shifted features in the spectra of O subdwarfs, Ap. J., 274, L87.

Bruhweiler, F.C., Feibelman, W.A., and Kondo, Y. 1986, The ultraviolet spectrum of the eclipsing binary IM Aurigae, A.J., 92, 441.

Bruhweiler, F.C., Grady, C.A., and Chiu, W.A. 1989, Highly ionized species and circumstellar shells in B8-A1 stars, Ap. J., 340, 1038.

Bruhweiler, F.C., Gull, T.R., Henize, K.G., and Cannon, R.D. 1981, On the nebulosities associated with the extreme Of star HD 148937, Ap. J., 251, 126.

Bruhweiler, F.C., Kafatos, M., and Sofia, U.J. 1986, The unusual ultraviolet variability of the QSO 3C 232, Ap. J., 303, L31.

Bruhweiler, F.C., and Kondo, Y. 1980, Interstellar CIV and SiIV column densities toward early-type stars, Ap. J., 237, 19.

Bruhweiler, F.C., and Kondo, Y. 1981, The interstellar medium and the highly ionized species observed in the spectrum of the nearby white dwarf G191-B2B, Ap. J., 248, L123.

Bruhweiler, F.C., and Kondo, Y. 1982, The UV spectra of nearby white dwarfs and the nature of the local interstellar medium, Ap. J., 259, 232.

Bruhweiler, F.C., and Kondo, Y. 1982, The detection of interstellar CI in the immediate vicinity of the sun, Ap. J., 260, L91.

Bruhweiler, F.C., and Kondo, Y. 1983, Mass loss, levitation, accretion, and the sharp-lined features in hot white dwarfs, Ap. J., 269, 657.

- Bruhweiler, F.C., Kondo, Y., and McCluskey, G.E. 1979, The "semitorrid" gas observed in the direction of Gamma 2 Velorum and the Gum Nebula, Ap. J., 229, L39.
- Bruhweiler, F.C., Kondo, Y., and McCluskey, G.E. 1981, The ultraviolet spectrum of the O-type subdwarf HD 49798, Ap. J. Suppl., 46, 255.
- Bruhweiler, F.C., Kondo, Y., and Sion, E.M. 1986, The historical record for Sirius: evidence for a white-dwarf thermonuclear runaway?, Nature, 324, 235.
- Bruhweiler, F.C., Parsons, S.B., and Wray, J.D. 1982, Comparison of winds in the Small Magellanic Cloud and galactic early-type stars, Ap. J., 256, L49.
- Bruhweiler, F.C., and Sion, E.M. 1986, Ultraviolet observations of V471 Tauri: evidence for a nova-like outburst, Ap. J., 304, L21.
- Bruhweiler, F.C., and Smith, A.M. 1988, Ultraviolet spectroscopy of the "jetlike" condensations of NGC 4151, Ap. J., 327, 664.
- Bruzual, G. 1983, Spectral evolution of galaxies. I. Early-type systems, Ap. J., 273, 105.
- Bruzual, G., Peimbert, M., and Torres-Peimbert, S. 1982, The UV continuum spectrum of M81, Ap. J., 260, 495.
- Budding, E., Kadouri, T.H., and Giminez, A. 1982, IUE observations of certain short-period RS CVn-like stars, Astrophys. Sp. Sci., 88, 453.
- Burger, M., de Jager, C., and van den Oord, G.H.J. 1982, The pulsation of the outer layers of the Beta Cephei star Sigma Sco, A. & A., 109, 289.
- Burger, M., de Jager, C., van den Oord, G.H.J., and Sato, N. 1982, The pulsation of the outer layers of the Beta Cephei-type variable BW Vul, A. & A., 107, 320.
- Burki, G., Heck, A., Bianchi, L., and Cassatella, A. 1982, Variability and mass loss in the extreme supergiant Zeta 1 Sco, A. & A., 107, 205.

- Burki, G., and Llorente de Andres, F. 1979, Ultraviolet P Cygni profiles of the C IV resonance line for O-type stars in the open cluster IC 1805, *A. & A.*, 79, L13.
- Burstein, D., Bertola, F., Buson, L.M., Faber, S.M., and Lauer, T.R. 1988, The far-ultraviolet spectra of early-type galaxies, *Ap. J.*, 328, 440.
- Buson, L.M., and Ulrich, M.-H. 1990, The Ly-alpha and C IV lines in 10 low-redshift active galactic nuclei/quasars, *A. & A.*, 240, 247.
- Buss, Jr., R.H., Lamers, H.J.G.L.M., and Snow, Jr., T.P. 1989, Grain ultraviolet extinction properties of recently discovered post asymptotic giant branch stars, *Ap. J.*, 347, 977.
- Buss, Jr., R.H., and Snow, Jr., T.P. 1988, Hot components and circumstellar grains in M supergiant syncretic binaries, *Ap. J.*, 335, 331.
- Butler, C.J. 1988, Multiwavelength Observations of stellar flares, *Irish Astron. J.*, 18, 198.
- Butler, C.J., Byrne, P.B., Andrews, A.D., and Doyle, J.G. 1981, Ultraviolet spectra of dwarf solar neighborhood stars. I., *M.N.R.A.S.*, 197, 815.
- Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodono, M., Pazzani, V., and Simon, T. 1987, Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii, *A. & A.*, 174, 139.
- Butler, C.J., Rodono, M., Foing, B.H., and Haisch, B.M. 1986, Coordinated EXOSAT and spectroscopic observations of flare stars and coronal heating, *Nature*, 321, 679.
- Butterworth, P.S., Caldwell, J., Moore, V., Owen, T., Rivolo, A.R., and Lane, A.L. 1980, An upper limit to the global SO₂ abundance on Io, *Nature*, 285, 308.
- Butterworth, P.S., and Meadows, A.J. 1985, Ultraviolet reflectance properties of asteroids, *Icarus*, 62, 305.
- Butterworth, P.S., Meadows, A.J., Hunt, G.E., Moore, V., and Willis, D.M. 1980, Ultraviolet spectra of asteroids, *Nature*, 287, 701.

- Buzasi, D.L., Ramsey, L.W., and Huenemoerder, D.P. 1987, A flare event on the long-period RS Canum Venaticorum system IM Pegasi, *Ap. J.*, 322, 353.
- Byrne, P.B., Butler, C.J., and Lyons, M.A. 1990, Activity in late-type stars. VI. Optical photometry and UV spectroscopy of the active dMe star, FK Aquarii in late 1983, *A. & A.*, 236, 455.
- Byrne, P.B., and Doyle, J.G. 1989, Activity in late-type dwarfs. III. Chromospheric and transition region line fluxes for two dM stars, *A. & A.*, 208, 159.
- Byrne, P.B., and Doyle, J.G. 1990, Activity in late-type stars. VII. Chromospheric and transition region line fluxes in 2 dM and 1 dM(e) stars, *A. & A.*, 238, 221.
- Byrne, P.B., Doyle, J.G., Brown, A., Linsky, J.L., and Rodono, M. 1987, Rotational modulation and flares on RS CVn and BY Dra stars. VI. Physical parameters of the chromospheres/transition regions of V711 Tau (HR 1099), II Peg and AR Lac during October 1981, *A. & A.*, 180, 172.
- Byrne, P.B., Doyle, J.G., and Butler, C.J. 1984, Optical photometry and ultraviolet spectroscopy of the flare/BY Dra star G1 182 (V1005 Ori), *M.N.R.A.S.*, 206, 907.
- Byrne, P.B., Doyle, J.G., Butler, C.J., and Andrews, A.D. 1984, Optical photometry and UV spectroscopy of the flare star G1 735 (= V1285 Aql), *M.N.R.A.S.*, 211, 607.
- Byrne, P.B., Dufton, P.L., Kingston, A.E., Lennon, D.J., and Murphy, H.M. 1988, Electron densities in late-type stars, *A. & A.*, 197, 205.
- Byrne, P.B., and McKay, D. 1989, Activity in late-type stars. IV. The 1980 August 20 flare on Proxima Centauri revisited, *A. & A.*, 223, 241.
- Byrne, P.B., and McKay, D. 1990, Activity in late-type stars. V. Rotational modulation and flaring in UV lines on the most rapidly rotating dMe star, G1 890 (=BD-16 6218), *A. & A.*, 227, 490.
- Byrne, P.B., Panagi, P., Doyle, J.G., Englebrecht, C.A., McMahan, R., Marang, F., and Wegner, G. 1989, Rotational modulation and flares on RS Canum Venaticorum and BY Draconis stars. XII. Near-to-simultaneous high resolution UV and optical observations of II Pegasi during July 1984, *A. & A.*, 214, 227.

Cacciari, C. 1985, UV fluxes of Population II stars, A. & A. Suppl., 61, 407.

Cacciari, C., Caloi, V., Castellani, V., and Fusi Pecci, F. 1984, IUE observations of UV bright stars in the globular clusters M15 and Omega Cen, A. & A., 139, 285.

Cacciari, C., Cassatella, A., Bianchi, L., Fusi Pecci, F., and Kron, R.G. 1982, Optical and ultraviolet observations of the X-ray globular cluster Bo 158 in M31, Ap. J., 261, 77.

Caldwell, J., Owen, T., Rivolo, A.R., Moore, V., Hunt, G.E., and Butterworth, P.S. 1981, Observations of Uranus, Neptune, and Titan by the International Ultraviolet Explorer, A.J., 86, 298.

Caldwell, J., Wagener, R., and Fricke, K.-H. 1988, Observations of Neptune and Uranus below 2000 Å with the IUE, Icarus, 74, 133.

Caldwell, J., Wagener, R., and Owen, T. 1983, Tentative confirmation of an aurora on Uranus, Nature, 303, 310.

Caloi, V., Cassatella, A., Castellani, V., Macchietto, F., and Melnick, J. 1981, Far ultraviolet investigation of three nuclei of globular clusters, A. & A., 103, 386.

Caloi, V., and Castellani, V. 1983, IUE observations of the nucleus of the galactic globular cluster NGC 2808, A. & A., 121, 198.

Caloi, V., Castellani, V., Danziger, J., Gilmozzi, R., Cannon, R.D., Hill, P.W., and Boksenberg, A. 1986, Optical and UV spectroscopy of blue horizontal branch stars in the globular cluster NGC 6752, M.N.R.A.S., 222, 55.

Caloi, V., Castellani, V., Galluccio, D., and Wamsteker, W. 1984, Far-ultraviolet spectra of the nuclei of globular clusters M30, M54, M70, A. & A., 138, 485.

Caloi, V., Castellani, V., and Panagia, N. 1982, The O type subdwarf ROB 162 in the globular cluster NGC 6397, A. & A., 107, 145.

Caloi, V., Castellani, V., and Tarenghi, M. 1985, M62: an RR Lyrae-rich, UV-bright galactic globular cluster, A. & A., 145, 286.

- Calvet, N., Basri, G., Imhoff, C.L., and Giampapa, M.S. 1985, Simultaneous observations of Ca II K and Mg II k in T Tauri stars, Ap. J., 293, 575.
- Cameron, M., and Liseau, R. 1990, UV observations of Herbig-Haro objects associated with bipolar molecular outflows: HH 7, HH 11, and HH 29, A. & A., 240, 409.
- Cannizzo, J.K., and Pudritz, R.E. 1988, A new angular momentum loss mechanism for cataclysmic variables, Ap. J., 327, 840.
- Canuto, V.M., Levine, J.S., Augustsson, T.R., and Imhoff, C.L. 1982, UV radiation from the young Sun and oxygen and ozone levels in the prebiological paleoatmosphere, Nature, 296, 816.
- Canuto, V.M., Levine, J.S., Augustsson, T.R., Imhoff, C.L., and Giampapa, M.S. 1983, The young Sun and the atmosphere and photochemistry of the early Earth, Nature, 305, 281.
- Cappelli, A., Cerruti-Sola, M., Cheng, C.C., and Pallavicini, R. 1989, A comparison of solar and stellar ultraviolet spectra obtained with Skylab and IUE, A. & A., 213, 226.
- Cardelli, J.A., and Bohm-Vitense, E. 1982, The interstellar absorption-line spectrum of Mu Ophiuchi, Ap. J., 262, 213.
- Cardelli, J.A., and Bohm, K.H. 1984, The reflection nebula NGC 1999, Ap. J., 285, 613.
- Cardelli, J.A., Clayton, G.C., and Mathis, J.S. 1988, The determination of ultraviolet extinction from the optical and near-infrared, Ap. J., 329, L33.
- Cardelli, J.A., Clayton, G.C., and Mathis, J.S. 1989, The relationship between infrared, optical, and ultraviolet extinction, Ap. J., 345, 245.
- Cardelli, J.A., and Savage, B.D. 1988, Two lines of sight with exceedingly anomalous ultraviolet interstellar extinction, Ap. J., 325, 864.
- Carpenter, K.G. 1984, Characteristics of the Fe II and C II emission in high-resolution IUE spectra (2300-3000 Å) of Alpha Orionis, Ap. J., 285, 181.

Carpenter, K.G., Brown, A., and Stencel, R.E. 1985, The geometric extent of C II (UV 0.01) emitting regions around luminous late-type stars, Ap. J., 289, 676.

Carpenter, K.G., Pesce, J.E., Stencel, R.E., Brown, A., Johansson, S., and Wing, R.F. 1988, The ultraviolet spectrum of noncoronal late-type stars: the Gamma Crucis (M3.4 III) reference spectrum, Ap. J. Suppl., 68, 345.

Carpenter, K.G., Slettebak, A., and Sonneborn, G. 1984, Rotational velocities of later B type and A type stars as determined from ultraviolet versus visual line profiles, Ap. J., 286, 741.

Carpenter, K.G., Wing, R.F., and Stencel, R.E. 1985, Line identifications, line strengths, and continuum flux measurements in the ultraviolet spectrum of Arcturus, Ap. J. Suppl., 57, 405.

Carrasco, L., Costero, R., and Stalio, R. 1981, Far-UV wind line profile changes in the O-type star HD 175754, A. & A., 100, 183.

Cassatella, A., Barbero, J., and Benvenuti, P. 1985, The International Ultraviolet Explorer (IUE) point spread function at low resolution, A. & A., 144, 335.

Cassatella, A., Barbero, J., and Geyer, E.H. 1987, Ultraviolet observations by the IUE of 31 clusters of the Large Magellanic Cloud, Ap. J. Suppl., 64, 83.

Cassatella, A., Beeckmans, F., Benvenuti, P., Clavel, J., Heck, A., Lamers, H.J.G.L.M., Macchettto, F., Penston, M., Selvelli, P.L., and Stickland, D.J. 1979, On the high resolution ultraviolet spectrum of P Cygni, A. & A., 79, 223.

Cassatella, A., Benvenuti, P., Clavel, J., Heck, A., Penston, M., Selvelli, P.L., and Macchettto, F. 1979, On the ultraviolet spectrum of nova Cygni 1978, A. & A., 74, L18.

Cassatella, A., Fransson, C., van Santvoort, J., Gry, C., Talavera, A., Wamsteker, W., and Panagia, N. 1987, Spectral evolution of SN 1987A in the far-ultraviolet, A. & A., 177, L29.

Cassatella, A., Giangrande, A., and Viotti, R. 1979, The ultraviolet spectrum and expansion velocity of Eta Carinae from IUE observations, A. & A., 71, L9.

Cassatella, A., Holm, A., Reimers, D., Ake, T., and Stickland, D.J. 1985, IUE high-resolution observations of Mira B, M.N.R.A.S., 217, 589.

Cassinelli, J.P., Hartmann, L., Sanders, W.T., Dupree, A.K., and Myers, R.V. 1983, Simultaneous X-ray and ultraviolet observations of Epsilon Orionis and Kappa Orionis, Ap. J., 268, 205.

Cassinelli, J.P., Mathis, J.S., and Savage, B.D. 1981, Central object of the 30 Doradus Nebula, a supermassive star, Science, 212, 1497.

Castelli, F., and Bonifacio, P. 1990, A computed spectrum for the normal star Iota Herculis (B3 IV) in the region 122.8-195.0 nm, A. & A. Suppl., 84, 259.

Castelli, F., Cornachin, M., Hack, M., and Morossi, C. 1984, The chemical composition of the He-w Bp star HR 6000, A. & A., 141, 223.

Castelli, F., Cornachin, M., Hack, M., and Morossi, C. 1985, Abundance analysis from the UV spectrum of the He-w star HR 6000, A. & A. Suppl., 59, 1.

Castelli, F., Hoekstra, R., and Kondo, Y. 1982, The mid-ultraviolet spectrum of Epsilon Aurigae, A. & A. Suppl., 50, 233.

Castor, J.I., Lutz, J.H., and Seaton, M.J. 1981, Ultraviolet spectra of planetary nebulae - III. Mass loss from the central star of NGC 6543, M.N.R.A.S., 194, 547.

Catala, C. 1983, The dust envelope of the Herbig Ae star, AB Aur, A. & A., 125, 313.

Catala, C. 1988, Line formation in the winds of Herbig Ae/Be stars. The C IV resonance lines, A. & A., 193, 222.

Catala, C., Czarny, J., Felenbok, P., and Praderie, F. 1986, Spectral similarities in the visible and UV spectrum of Herbig Ae/Be stars, A. & A., 154, 103.

Catala, C., Praderie, F., and Felenbok, P. 1987, Rotational modulation of the wind of the PMS star AB Aur: new observations in CIV and MgII, A. & A., 182, 115.

- Catala, C., Simon, T., Praderie, F., Talavera, A., The, P.S., and Tjin A Djie, H.R.E. 1989, Active phenomena in the pre-main sequence Herbig Ae star HD 163296, *A. & A.*, 221, 273.
- Catala, C., and Talavera, A. 1984, The presence of Si³⁺ and C³⁺ in the wind of AB Aur, *A. & A.*, 140, 421.
- Cerruti-Sola, M., and Perinotto, M. 1985, Winds in central stars of planetary nebulae, *Ap. J.*, 291, 237.
- Cerruti-Sola, M., and Perinotto, M. 1989, Fast winds in central stars of some planetary nebulae, *Ap. J.*, 345, 339.
- Chaffee, F.H. 1983, Optical and ultraviolet high-resolution spectroscopy of galaxies and QSOs, *P.A.S.P.*, 95, 700.
- Chapman, G.N.F., Geller, M.J., and Huchra, J.P. 1985, The ultraviolet variability of Seyfert 1 galaxies, *Ap. J.*, 297, 151.
- Chapman, R.D. 1980, IUE observations of the atmospheric eclipsing binary system Zeta Aurigae, *Nature*, 286, 580.
- Chapman, R.D. 1981, The 1979-1980 eclipse of Zeta Aurigae. I. The circumstellar envelope, *Ap. J.*, 248, 1043.
- Chapman, R.D., Kondo, Y., and Stencel, R.E. 1983, The partial phase of the eclipse of Epsilon Aurigae, *Ap. J.*, 269, L17.
- Charles, P.A., Booth, L., Densham, R.H., Bath, G.T., Thorstensen, J.R., Howarth, I.D., Willis, A.J., Skinner, G.K., and Olszewski, E. 1983, Extreme variability in the Be-type, periodic recurrent X-ray transient A0538-66: a highly eccentric interacting binary, *M.N.R.A.S.*, 202, 657.
- Che-Bohnenstengel, A. 1984, A study of ultraviolet spectra of Xi Aur/VV Cep systems. VI. Excitation temperature within the wind of the K supergiant 32 Cyg, *A. & A.*, 138, 333.
- Che-Bohnenstengel, A., and Reimers, D. 1986, The accretion of supergiant wind material onto the hot companion in Zeta Aurigae binaries, *A. & A.*, 156, 172.

- Che, A., Hempe, K., and Reimers, D. 1983, A study of ultraviolet spectra of Zeta Aur/VV Cep systems. II Mass loss of supergiants in Zeta Aur, 32 Cyg, and 31 Cyg, *A. & A.*, 126, 225.
- Che, A., and Reimers, D. 1983, Boss 1985: mass loss investigation based on IUE spectra, *A. & A.*, 127, 227.
- Chen, H., Ringuelet, A., Sahade, J., and Kondo, Y. 1989, Analysis of the velocity law in the wind of the Be star Lambda Pavonis, *Ap. J.*, 347, 1082.
- Chen, K., Halpern, J.P., and Filippenko, A.V. 1989, Kinematic evidence for a relativistic Keplerian disk: Arp 102B, *Ap. J.*, 339, 742.
- Cheng, A.F., Lanzerotti, L.J., and Pirronello, V. 1982, Charged particle sputtering of ice surfaces in Saturn's magnetosphere, *Jour. Geophys. Res.*, 87, 4567.
- Cheng, F.H., and Fang, L.Z. 1987, An archival study of IUE observations of low-redshift quasars, *M.N.R.A.S.*, 226, 485.
- Chevalier, R.A. 1988, The interaction of supernova 1987A with dense circumstellar gas, *Nature*, 332, 514.
- Chiappetti, L., Belloni, T., Bonnet-Bidaud, J.-M., Del Gratta, C., De Martino, D., Maraschi, L., Mouchet, M., Mukai, K., Osborne, J.P., Corbet, R.H.D., Tanzi, E.G., and Treves, A. 1989, X-ray, ultraviolet, and optical observations of the intermediate polar FO Aquarii (H2215-086), *Ap. J.*, 342, 493.
- Chiappetti, L., Maraschi, L., Tanzi, E.G., and Treves, A. 1982, Far-ultraviolet observations of MV Lyrae, *Ap. J.*, 258, 236.
- Chiappetti, L., Maraschi, L., Tanzi, E.G., and Treves, A. 1983, Ultraviolet spectroscopy of V1341 Cygni (=Cygnus X-2), *Ap. J.*, 265, 354.
- Chiappetti, L., Treves, A., Branduardi-Raymont, G., Ciapi, A.L., Ercan, E.N., Freeman, P.E., Kahn, S.M., Maraschi, L., Paerels, F.B.S., and Tanzi, E.G. 1990, Exosat observations of Cygnus X-2 continuum and line spectrum, *Ap. J.*, 361, 596.
- Chjonacki, G.T., Cowley, C.R., and Bord, D.J. 1984, An analysis by wavelength coincidence statistics of the ultraviolet spectrum of Kappa Cancri, *Ap. J.*, 286, 736.

Ciani, A., D'Odorico, S., and Benvenuti, P. 1984, The stellar population of the nucleus of M33 from an analysis of its lambda-lambda 1200-3000 Å spectrum, *A. & A.*, 137, 223.

Clarke, J., Durrance, S., Atreya, S., Barnes, A., Belcher, J., Festou, M., Imhoff, C., Mihalov, J., Moos, W., Murthy, J., Pradhan, A., and Skinner, T. 1986, Continued observations of the H Ly-alpha emission from Uranus, *Jour. Geophys. Res.*, 91, 8771.

Clarke, J.T. 1982, Detection of auroral hydrogen Lyman-alpha emission from Uranus, *Ap. J.*, 263, L105.

Clarke, J.T., Bowyer, S., Fahr, H.J., and Lay, G. 1984, IUE high resolution spectrophotometry of H Lyman alpha emission from the local interstellar medium, *A. & A.*, 139, 389.

Clarke, J.T., Bowyer, S., and Grewing, M. 1986, Far-ultraviolet and optical spectrophotometry of X-ray selected Seyfert galaxies, *Ap. J.*, 305, 167.

Clarke, J.T., Moos, H.W., Atreya, S.K., and Lane, A.L. 1980, Observations from earth orbit and variability of the polar aurora on Jupiter, *Ap. J.*, 241, L179.

Clarke, J.T., Moos, H.W., Atreya, S.K., and Lane, A.L. 1981, IUE detection of bursts of H LY alpha emission from Saturn, *Nature*, 290, 226.

Clarke, J.T., Moos, H.W., and Feldman, P.D. 1981, IUE monitoring of the spatial distribution of the H Ly alpha emission from Jupiter, *Ap. J.*, 245, L127.

Clarke, J.T., Moos, H.W., and Feldman, P.D. 1982, The far-ultraviolet spectra and geometric albedos of Jupiter and Saturn, *Ap. J.*, 255, 806.

Clarke, J.T., Weaver, H.A., Feldmann, P.D., Moos, H.W., Fastie, W.G., and Opal, C.B. 1980, Spatial imaging of hydrogen Lyman alpha emission from Jupiter, *Ap. J.*, 240, 696.

Clavel, J. 1983, The Seyfert 1 galaxy NGC 4593 - II. The pattern of variability of the UV spectrum, *M.N.R.A.S.*, 204, 189.

Clavel, J., Altamore, A., Boksenberg, A., Bromage, G.E., Elvius, A., Pelat, D., Penston, M.V., Perola, G.C., Snijders, M.A.J., and Ulrich, M.-H. 1987, A detailed study of the C IV 1550 line profile and adjacent spectral features in NGC 4151 from 1978 to 1983, *Ap. J.*, 321, 251.

Clavel, J., Benvenuti, P., Cassatella, A., Heck, A., Penston, M.V., Selvelli, P.L., Beekmans, F., and Macchetto, F. 1980, The UV spectrum of the narrow emission line X-ray emitting nucleus of the galaxy NGC 7582, M.N.R.A.S., 192, 769.

Clavel, J., Boksenberg, A., Bromage, G.E., Elvius, A., Penston, M.V., Perola, G.C., Santos-Lleo, M., Snijders, M.A.J., and Ulrich, M.-H. 1990, The ultra-compact broad emission line region in NGC 4151, M.N.R.A.S., 246, 668.

Clavel, J., and Flower, D.R. 1980, A search for absorption in the fourth positive system of CO in the spectrum of the planetary nebula IC 418, M.N.R.A.S., 190, 1P.

Clavel, J., Flower, D.R., and Seaton, M.J. 1981, Ultraviolet spectra of planetary nebulae - V. The CII 1335 dielectronic recombination lines in IC 418, M.N.R.A.S., 197, 301.

Clavel, J., Gilmozzi, R., and Prieto, A. 1988, A correction method for the sensitivity loss of the LWR camera on board the IUE satellite, A. & A., 191, 392.

Clavel, J., and Joly, M. 1984, The 1200-3200 Å spectra of Seyfert I galaxies: MK 304, NGC 7603, MCG 8-11-11, ESO 12-G 21, and NGC 1566, A. & A., 131, 87.

Clavel, J., Joly, M., Collin-Souffrin, S., Bergeron, J., and Penston, M.V. 1983, The Seyfert 1 galaxy NGC 4953 - I. Variability of the UV spectrum and physical conditions in the broad line emitting region, M.N.R.A.S., 202, 85.

Clavel, J., and Santos-Lleo, M. 1990, The turn-over of the "big bump" in Fairall 9 and HS1700+6416: a genuine difference between Seyfert galaxies and quasars?, A. & A., 230, 3.

Clavel, J., and Wamsteker, W. 1987, The fading of the narrow-line region in 3C 390.3, Ap. J., 320, L9.

Clavel, J., Wamsteker, W., and Glass, I.S. 1989, Hot dust on the outskirts of the broad-line region in Fairall 9, Ap. J., 337, 236.

Clayton, G.C., and Cardelli, J.A. 1988, Polarization and the ratio of total-to-selective extinction, A.J., 96, 695.

- Clayton, G.C., and Fitzpatrick, E.L. 1987, Anomalous dust in the open cluster Trumpler 37, *A.J.*, 93, 157.
- Clayton, G.C., and Martin, P.G. 1985, Interstellar dust in the Large Magellanic Cloud, *Ap. J.*, 288, 558.
- Clegg, R.E.S., Harrington, J.P., Barlow, M.J., and Walsh, J.R. 1987, The planetary nebula NGC 3918, *Ap. J.*, 314, 551.
- Clegg, R.E.S., Harrington, J.P., and Storey, P.J. 1986, Ne III charge-exchange lines in the planetary nebula NGC 3918, *M.N.R.A.S.*, 221, 61P.
- Clegg, R.E.S., Peimbert, M., and Torres-Peimbert, S. 1987, The carbon-poor halo planetary nebula DDDM-1, *M.N.R.A.S.*, 224, 761.
- Clegg, R.E.S., Seaton, M.J., Peimbert, M., and Torres-Peimbert, S. 1983, Analysis of nebulosity in the planetary nebula NGC 40, *M.N.R.A.S.*, 205, 417.
- Cochran, W.D., Wagener, R., Caldwell, J., and Fricke, K.H. 1990, The ultraviolet continuum albedo of Uranus, *Icarus*, 83, 93.
- Codina, S.J., de Freitas Pacheco, J.A., Lopes, D.F., and Gilra, D. 1984, The spectrum of the Be star HD 110432, *A. & A. Suppl.*, 57, 239.
- Coe, M.J., and Wickramasinghe, D.T. 1981, UV observations of X-ray sources 2A0311-227 and 2A0526-328, *Nature*, 290, 119.
- Cohen, J.G., and Gillett, F.C. 1989, The peculiar planetary nebula in M22, *Ap. J.*, 346, 803.
- Cohen, J.G., Rich, R.M., and Persson, S.E. 1984, IUE observations of the clusters of the Magellanic Clouds, *Ap. J.*, 285, 595.
- Cohen, M., Tielens, A.G.G.M., Bregman, J., Witteborn, F.C., Rank, D.M., Allamandola, L.J., Wooden, D.H., and de Muizon, M. 1989, The infrared emission bands. III. Southern IRAS sources, *Ap. J.*, 341, 246.
- Cohen, R.D., Rudy, R.J., Puetter, R.C., Ake, T.B., and Foltz, C.B. 1986, Variability of Markarian 1018: Seyfert 1.9 to Seyfert 1, *Ap. J.*, 311, 135.

- Collier Cameron, A., Duncan, D.K., Ehrenfreund, P., Foing, B.H., Kuntz, K.D., Penston, M.V., Robinson, R.D., and Soderblom, D.R. 1990, Fast spectroscopic variations on rapidly rotating, cool dwarfs - III. Masses of circumstellar absorbing clouds on AB Doradus, *M.N.R.A.S.*, 247, 415.
- Conti, P.S., and Garmany, C.D. 1980, Mass loss from O-type stars, *Ap. J.*, 238, 190.
- Conti, P.S., and Morris, P.W. 1990, A new method to determine the interstellar reddening towards WN stars, *A.J.*, 99, 898.
- Cook, T.A., Cash, W., and Snow, T.P. 1989, Far-ultraviolet spectrophotometry of Spica, *Ap. J.*, 347, L81.
- Corbet, R.H.D., Mason, K.O., Cordova, F.A., Branduardi-Raymont, G., and Parmer, A.N. 1985, Optical spectroscopy and photometry of the periodic X-ray transient A0538-66 (X0535-668) during an outburst and an OFF state, *M.N.R.A.S.*, 212, 565.
- Cordova, F.A., Fenimore, E.E., Middleditch, J., and Mason, K.O. 1983, Time resolved ultraviolet and optical spectroscopy of the pulsating X-ray source H2252-035, *Ap. J.*, 265, 363.
- Cordova, F.A., and Mason, K.O. 1982, High-velocity winds from a dwarf nova during outburst, *Ap. J.*, 260, 716.
- Cordova, F.A., and Mason, K.O. 1985, High-velocity winds in close binaries with accretion disks. II. The view along the plane of the disk, *Ap. J.*, 290, 671.
- Costa, A., and Ringuelet, A. 1985, The behaviour of the atmosphere of Sigma Scorpii, *Rev. Mex. Astron. Astrof.*, 10, 293.
- Costero, R., and Stalio, R. 1984, P Cygni and related profiles in the ultraviolet spectra of O-stars, *A. & A. Suppl.*, 58, 95.
- Cottrell, P.L., and Greenstein, J.L. 1980, Ultraviolet spectrum synthesis of the helium white dwarf Ross 640, *Ap. J.*, 238, 941.
- Courvoisier, T.J.-L., Reichen, M., Blecha, A., Golay, M., and Huguenin, D. 1990, Far-UV imaging of the starburst galaxy M82, *A. & A.*, 238, 63.

Courvoisier, T.J.-L., Robson, E.I., Blecha, A., Bouchet, P., Falomo, R., Maisack, M., Staubert, R., Teräsanta, H., Turner, M.J.L., Valtaoja, E., Walter, R., and Wamsteker, W. 1990, Multi-wavelength observations of 3C 273. II. 1986-1988, *A. & A.*, 234, 73.

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, R., Valtonen, M., and Teräsanta, H. 1987, The radio to X-ray continuum emission of the quasar 3C273 and its temporal variations, *A. & A.*, 176, 197.

Courvoisier, T.J.L., and Ulrich, M.-H. 1985, Ultraviolet continuum variability of the quasar 3C273, *Nature*, 316, 524.

Cowie, L.L., Hu, E.M., Taylor, W., and York, D.G. 1981, A search for expanding supershells of gas around OB associations, *Ap. J.*, 250, L25.

Cowie, L.L., Taylor, W., and York, D.G. 1981, On the origin and distribution of CIV and SiIV ions in the neighboring interstellar medium, *Ap. J.*, 248, 528.

Cowley, A.P., and Burstein, D. 1988, The ultraviolet spectra of M31 globular clusters, *A.J.*, 95, 1071.

Cowley, C.R. 1987, Platinum and bismuth in HR 465, *Observatory*, 107, 189.

Cowley, C.R., and Greenberg, M. 1987, The third spectrum of erbium in HR 465, *P.A.S.P.*, 99, 1201.

Cowley, C.R., and Greenberg, M. 1988, Third spectra of rare earth elements in chemically peculiar stars: IUE spectra, *M.N.R.A.S.*, 232, 763.

Cowley, C.R., and Merritt, D.R. 1987, Identification of lines in the satellite ultraviolet: the spectrum of Tau Scorpii, *Ap. J.*, 321, 553.

Cram, L.E., Giampapa, M.S., and Imhoff, C.L. 1980, Emission measures derived from far ultraviolet spectra of T Tauri stars, *Ap. J.*, 238, 905.

Crampton, D., Cowley, A.P., Hutchings, J.B., Schmidtke, P.C., Thompson, I.B., and Liebert, J. 1987, CAL 83: a puzzling X-ray source in the Large Magellanic Cloud, *Ap. J.*, 321, 745.

Crawford, C.S., Arnaud, K.A., Fabian, A.C., and Johnstone, R.M. 1989, A2597: another massive cooling flow, M.N.R.A.S., 236, 277.

Crenshaw, D.M., and Blackwell, Jr., J.H. 1990, Evidence for a supermassive black hole in the nucleus of the Seyfert galaxy NGC 5548, Ap. J., 358, L37.

Crenshaw, D.M., Bruegman, O.W., and Norman, D.J. 1990, Camera artifacts in IUE low-dispersion spectra, P.A.S.P., 102, 463.

Crenshaw, D.M., Peterson, B.M., and Wagner, R.M. 1988, Ultraviolet and optical spectra of broadline radio galaxies, A.J., 96, 1208.

Crivellari, L., Franco, M.L., Molaro, P., Vladilo, G., and Beckman, J.E. 1983, The spectra of late type dwarfs and sub-dwarfs in the near ultraviolet. II. Limits to variability in Mg II emission from IUE spectrophotometry, A. & A. Suppl., 52, 135.

Crivellari, L., and Morossi, C. 1982, An alternative procedure for extracting IUE low resolution spectra, A. & A., 106, 332.

Crivellari, L., and Praderie, F. 1982, On the search for transition zone lines in late A type stars, A. & A., 107, 75.

Crotts, A.P.S., Kron, R.G., Cacciari, C., and Fusilli-Pecchi, F. 1990, Ultraviolet fluxes for globular clusters in M31: a rediscussion, A.J., 100, 141.

Crovisier, J., Despois, D., Bockelee-Morvan, D., Gerard, E., Paubert, G., Johansson, L.E.B., Ekelund, L., Winnberg, A., Ge, W., Irvine, W.M., Kinzel, W.M., and Schloerb, F.P. 1990, A search for the millimetre lines of HCN in comets Wilson 1987VII and Machholz 1988XV, A. & A., 234, 535.

Cugier, H. 1989, Carbon abundance in the primaries of six Algol-type stars, A. & A., 214, 168.

Cugier, H., and Hardorp, J. 1988, Analysis of C II resonance lines in some main sequence early-type stars, A. & A., 197, 163.

- Cugier, H., and Hardorp, J. 1988, Carbon abundance in Beta Persei and Lambda Tauri, A. & A., 202, 101.
- Cugier, H., and Molaro, P. 1983, High rotational velocity of a region around the primary of Algol, A. & A., 128, 429.
- Cugier, H., and Molaro, P. 1984, Accretion of mass in Algol, A. & A., 140, 105.
- Cuntz, M. 1990, Chromospheric extents predicted by time-dependent acoustic wave models, Ap. J., 349, 141.
- Cuttela, M., and Ringuelet, A.E. 1990, A model for the Ae star with detected magnetic field, HD 190073, M.N.R.A.S., 246, 20.
- D'Odorico, S., and Benvenuti, P. 1983, Astrophysical properties of a luminous Wolf-Rayet type object in the core of the extragalactic HII region IC 132 from an analysis of its 1200-6000A spectrum, M.N.R.A.S., 203, 157.
- D'Odorico, S., Benvenuti, P., Dennefeld, M., Dopita, M.A., and Greve, A. 1980, Astrophysical interpretation of the 1200-7300 Å emission line spectrum of a filament in the Cygnus Loop supernova remnant, A. & A., 92, 22.
- Dachs, J., and Hanuschik, R. 1984, A study of the expanding envelope from the pole-on Be star HR 5223, A. & A., 138, 140.
- Danezis, E., and Theodossiou, E. 1988, The far UV spectrum of the Be star 88 Herculis, A. & A. Suppl., 72, 497.
- Danezis, E., and Theodossiou, E. 1990, The UV spectrum of the Be star 88 Herculis, Astrophys. Sp. Sci., 174, 49.
- Danly, L. 1989, The kinematics of Milky Way halo gas. I. Observations of low-ionization species, Ap. J., 342, 785.
- Danziger, I.J., Bergeron, J., Fosbury, R.A.E., Maraschi, L., Tanzi, E.G., and Treves, A. 1983, The UV spectrum of the BL Lac object PKS 0521-36, M.N.R.A.S., 203, 565.

- Danziger, I.J., Fosbury, R.A.E., Alloin, D., Cristiani, S., Dachs, J., Gouiffes, C., Jarvis, B., and Sahu, K.C. 1987, Optical spectroscopy of SN 1987A, *A. & A.*, 177, L13.
- Danziger, I.J., Wood, R., and Clark, D.H. 1980, Ultraviolet spectroscopy of the Vela supernova remnant, *M.N.R.A.S.*, 192, 83P.
- Davidson, J.P., and Bord, D.J. 1982, A search for medium Z elements in the ultraviolet spectrum of Kappa Cancri, *A. & A.*, 111, 362.
- Davidson, K., Dufour, R.J., Walborn, N.R., and Gull, T.R. 1986, Ultraviolet and visual wavelength spectroscopy of gas around Eta Carinae, *Ap. J.*, 305, 867.
- Davidson, K., Gull, T.R., Maran, S.P., Stecher, T.P., Fesen, R.A., Parise, R.A., Harvel, C.A., Kafatos, M., and Trimble, V.L. 1982, The ultraviolet spectrum of the Crab Nebula, *Ap. J.*, 253, 696.
- Davidson, K., Walborn, N.R., and Gull, T.R. 1982, The remarkable spectrum of some material ejected by Eta Carinae, *Ap. J.*, 254, L47.
- Davis, R., and Hartmann, L. 1983, Constraints on the inclination and masses of the HDE 226868/Cygnus X-1 system from the observations, *Ap. J.*, 270, 671.
- de Araujo, F.X., and de Freitas Pacheco, J.A. 1990, Asymmetric winds in Be stars, *Astrophys. Sp. Sci.*, 163, 49.
- de Boer, K.S. 1985, UV-bright stars in galactic globular clusters, their far-UV spectra and their contribution to the globular cluster luminosity, *A. & A.*, 142, 321.
- de Boer, K.S., and Code, A.D. 1981, The far-ultraviolet energy distribution of two globular cluster blue horizontal-branch stars in M13, *Ap. J.*, 243, L33.
- de Boer, K.S., Fitzpatrick, E.L., and Savage, B.D. 1985, Abundances of O, Mg, S, Cr, Mn, Ti, Ni and Zn from absorption lines of neutral gas in the Large Magellanic Cloud in front of R136, *M.N.R.A.S.*, 217, 115.
- de Boer, K.S., Grewing, M., Richtler, T., Wamsteker, W., Gry, C., and Panagia, N. 1987, Interstellar lines in SN 1987A observed with the IUE, *A. & A.*, 177, L37.

de Boer, K.S., Heber, U., and Richtler, T. 1988, The nature of the four blue halo stars of Tobin, A. & A., 202, 113.

de Boer, K.S., Koornneef, J., and Savage, B.D. 1980, Ultraviolet absorption by interstellar gas near 30 Doradus, Ap. J., 236, 769.

de Boer, K.S., and Kuss, C. 1988, Scattered light between 2 and 13 arcmin from Zeta Orionis in the 1200 to 3000 Å wavelength range, A. & A., 203, 149.

de Boer, K.S., Morras, R., and Bajaja, E. 1990, The location of intermediate- and high-velocity gas in the general direction of the Large Magellanic Cloud, A. & A., 233, 523.

de Boer, K.S., and Nash, A.G. 1982, Ultraviolet absorption by interstellar gas near the LMC star HD 36402 in the interstellar bubble N51D, Ap. J., 255, 447.

de Boer, K.S., Preussner, P.R., and Grewing, M. 1982, The width of echelle orders in IUE images as derived with the Astronomical Image Display and Analysis (AIDA) System in Tubingen, A. & A., 115, 128.

de Boer, K.S., and Savage, B.D. 1980, Evidence for hot gaseous coronae around the Magellanic Clouds, Ap. J., 238, 86.

de Boer, K.S., and Savage, B.D. 1983, Absorption by halo gas in the direction of M13, Ap. J., 265, 210.

de Boer, K.S., and Savage, B.D. 1984, Inflow of halo gas from the direction of the galactic North Pole, A. & A., 136, L7.

de Castro, E., Fernandez-Figueroa, M.J., and Rego, M. 1982, The outer atmosphere structure of three late type stars, A. & A., 113, 94.

de Castro, E., Fernandez-Figueroa, M.J., Rego, M., and Ponz, D. 1981, Analysis of the far ultraviolet emission lines in late type stars, A. & A., 102, 207.

de Freitas Pacheco, J.A. 1982, Mass loss from Be stars derived from UV spectra, M.N.R.A.S., 199, 591.

- de Freitas Pacheco, J.A., Faria Lopes, D., Landaberry, S.C., and Selvelli, P.L. 1985, HD 87643: a B [e] star with a cold wind, *A. & A.*, 152, 101.
- de Freitas Pacheco, J.A., Gilra, D.P., and Pottasch, S.R. 1982, Analysis of the IUE and optical spectra of the peculiar Be star HD 87643, *A. & A.*, 108, 111.
- de Jager, C., Lamers, H.J.G.L.M., Macchetto, F., and Snow, T.P. 1979, Short time changes in the terminal velocity of the stellar wind of Alpha Cam (095 Ia), *A. & A.*, 79, L28.
- de Jager, C., Nieuwenhuijzen, H., and van der Hucht, K.A. 1988, Mass loss rates in the Hertzsprung-Russell diagram, *A. & A. Suppl.*, 72, 259.
- de Kool, M., and de Jong, T. 1985, C IV and Si IV in the interstellar medium, *A. & A.*, 149, 151.
- de Loore, C., Burger, M., Hensberge, H., and Van Dessel, E.L. 1981, Ultraviolet observations of the Be Star and X-ray binary 4U1145-61 (=HD 102567=Hen 715) obtained with the IUE, *A. & A.*, 104, 150.
- de Loore, C., Giovannelli, F., van Dessel, E.L., Bartolini, C., Burger, M., Ferrari-Toniolo, M., Giangrande, A., Guarnieri, A., Hellings, P., Hensberge, H., Persi, P., Piccioni, A., and Van Diest, H. 1984, Multispectral analysis in the UV, optical and IR of HDE 245770 = A0535+26, *A. & A.*, 141, 279.
- De Robertis, M.M., Hutchings, J.B., and Pitts, R.E. 1988, An optical and UV investigation of the IRAS Seyfert galaxy 1319-164, *A.J.*, 95, 1371.
- Dean, C.A., and Bruhweiler, F.C. 1985, An ultraviolet line list for O star spectra, *Ap. J. Suppl.*, 57, 133.
- Dearborn, D.S.P., Liebert, J., Aaronson, M., Dahn, C.C., Harrington, R., Mould, J., and Greenstein, J.L. 1986, On the nature of the dwarf carbon star G77-61, *Ap. J.*, 300, 314.
- Deasy, H.P. 1988, Observational evidence for mass loss from classical Cepheids, *M.N.R.A.S.*, 231, 673.
- Deharveng, J.-M., Bixler, J., Joubert, M., Bowyer, S., and Malina, R. 1986, Search for ultraviolet emission lines from a hot gaseous halo in the edge-on galaxy NGC 4244, *A. & A.*, 154, 119.

Deharveng, J.M., Joubert, M., Monnet, G., and Donas, J. 1982, Hot stars in the bulge of M31: upper limit to the star formation rate, *A. & A.*, 106, 16.

Demers, S., Wesemael, F., Irwin, M.J., Fontaine, G., Lamontagne, R., Kepler, S.O., and Holberg, J.B. 1990, Hot degenerates in the MCT Survey. I. MCT 0130-1937, a new, color-selected PG 1159 object, *Ap. J.*, 351, 271.

Dempsey, R.C., Parsons, S.B., and Bopp, B.W. 1988, The long-period K + Be binary HR 2577 (MWC 827), *P.A.S.P.*, 100, 481.

Dempsey, R.C., Parsons, S.B., Bopp, B.W., and Fekel, F.C. 1990, HD 43246 and HD 127208: two unusual F-G + B binary systems, *P.A.S.P.*, 102, 312.

Desko, R.D., Bord, D.J., and Davidson, J.P. 1986, VIRIS-VAX interactive reduction of IUE spectra, *P.A.S.P.*, 98, 948.

Deuel, W., and Nussbaumer, H. 1983, The evidence for shell formation in V1016 Cygni, *Ap. J.*, 271, L19.

Diaz, A.I., Prieto, M.A., and Wamsteker, W. 1988, The optical and UV spectrum of the Seyfert type 2 galaxy NGC 3393, *A. & A.*, 195, 53.

Digel, S.W., and Shipman, H.L. 1984, The effective temperature of the white-dwarf star and ZZ Ceti candidate Wolf 485A, *P.A.S.P.*, 96, 996.

Doazan, V., Barylak, M., Rusconi, L., Sedmak, G., Thomas, R.N., and Bourdonneau, B. 1989, The first decade of envelope formation of 59 Cygni in the far UV and optical regions. II, *A. & A.*, 210, 249.

Doazan, V., Grady, C.A., Snow, T.P., Peters, G.J., Marlborough, J.M., Barker, P.K., Bolton, C.T., Bourdonneau, B., Kuhi, L.V., Lyons, R.W., Polidan, P.S., Stalio, R., and Thomas, R.N. 1985, The development of the new Be phase of 59 Cyg in the visual and in the far UV in 1978-1983, *A. & A.*, 152, 182.

Doazan, V., Kuhi, L.V., and Thomas, R.N. 1980, Variable mass flux in the Be star 59 Cygni, *Ap. J.*, 235, L17.

Doazan, V., Marlborough, J.M., Morossi, C., Peters, G.J., Rusconi, L., Sedmak, G., Stalio, R., Thomas, R.N., and Willis, A. 1986, Ultraviolet and visual variability of Theta CrB during a normal B-phase following a shell phase (1980-1985), *A. & A.*, 158, 1.

- Doazan, V., Morossi, C., Stalio, R., and Thomas, R.N. 1986, Far UV variability of Theta CrB in 1980-1985. II. Evidence for variability patterns and ionization dependence, *A. & A.*, 170, 77.
- Doazan, V., Morossi, C., Stalio, R., Thomas, R.N., and Willis, A. 1984, Abrupt changes in the C IV resonance lines of Theta CrB, *A. & A.*, 131, 210.
- Doazan, V., Rusconi, L., Sedmak, G., and Thomas, R.N. 1987, Far-UV variability of Theta CrB in 1985-86: a progression toward higher velocities, *A. & A.*, 173, L8.
- Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N., and Bourdonneau, B. 1987, Long-term variability of the far-UV high velocity components in Gamma Cas (1978-1986), *A. & A.*, 182, L25.
- Doazan, V., Thomas, R.N., and Barylak, M. 1986, Luminosity and colour variations of 88 Her through phase changes from the far UV to the visual spectral regions. II. Empirical atmospheric modelling: an association between photospheric and envelope variations, *A. & A.*, 159, 75.
- Doazan, V., Thomas, R.N., and Bourdonneau, B. 1988, The vanishing shell phase of Pleione in the far UV in 1988, *A. & A.*, 205, L11.
- Dobias, J.J., and Plavec, M.J. 1985, A redetermination of the luminosity, distance, and reddening of Beta Lyrae, *A.J.*, 90, 773.
- Dobias, J.J., and Plavec, M.J. 1985, IUE and optical spectral scans of U Sagittae: an analysis and comparison with U Cephei, *P.A.S.P.*, 97, 138.
- Dobias, J.J., and Plavec, M.J. 1987, Flux distribution in the Algol binary system RW Persei, *P.A.S.P.*, 99, 159.
- Dobias, J.J., and Plavec, M.J. 1987, A spectrophotometric study of the Algol binary system RX Geminorum, *P.A.S.P.*, 99, 274.
- Doherty, L.R. 1985, A survey of Mg II h and k emission in near-solar-type stars, *M.N.R.A.S.*, 217, 41.
- Dominy, J.F., and Lambert, D.L. 1983, Do all barium stars have a white dwarf companion?, *Ap. J.*, 270, 180.

Done, C., Ward, M.J., Fabian, A.C., Kunieda, H., Tsuruta, S., Lawrence, A., Smith, M.G., and Wamsteker, W. 1990, Simultaneous multifrequency observations of the Seyfert 1 galaxy NGC 4051: constant optical-infrared emission observed during large-amplitude X-ray variability, M.N.R.A.S., 243, 713.

Dorren, J.D., and Guinan, E.F. 1990, The evolution of magnetic activity on V711 Tauri and evidence for a significant facular contribution, Ap. J., 348, 703.

Doschek, G.A., Feldman, U., Mariska, J.T., and Linsky, J.L. 1978, Electron densities in stellar atmospheres determined from IUE spectra, Ap. J., 226, L35.

Downes, R.A. 1987, The stars with H-alpha missing, Ap. J., 316, 763.

Downes, R.A. 1990, IUE observations of WX Ceti in outburst, A.J., 99, 339.

Downes, R.A., Liebert, J., and Margon, B. 1985, KPD 0005+5106: a post-PG 1159 type object?, Ap. J., 290, 321.

Downes, R.A., Sion, E.M., Liebert, J., and Holberg, J.B. 1987, Further observations of the peculiar hot helium-rich degenerate KPD 0005+5106, Ap. J., 321, 943.

Doyle, J.G. 1987, An activity-rotation relationship in F-M dwarfs from MgII h and k flux, M.N.R.A.S., 224, 1P.

Doyle, J.G. 1988, An active hemisphere on II Peg, A. & A., 192, 281.

Doyle, J.G. 1989, An estimate of the total chromospheric, transition region and coronal radiative losses in late-type stars, A. & A., 214, 258.

Doyle, J.G., Butler, C.J., Byrne, P.B., Rodono, M., Swank, J., and Fowles, W. 1989, Rotational modulation and flares on RS CVn and BY Draconis stars. XIII. IUE spectroscopy and photometry of II Pegasi during September 1986, A. & A., 223, 219.

Doyle, J.G., Byrne, P.B., and Butler, C.J. 1986, Flare activity and BY-Draconis-type variability on the late-type dMe star Gliese 867B, A. & A., 156, 283.

- Doyle, J.G., Byrne, P.B., and van den Oord, G.H.J. 1989, Ultraviolet flares on II Pegasi, *A. & A.*, 224, 153.
- Doyle, J.G., and Collier Cameron, A. 1990, Mass ejections from the rapidly rotating M dwarf star G1 890, *M.N.R.A.S.*, 244, 291.
- Doyle, J.G., Panagi, P., and Byrne, P.B. 1990, Ly-alpha and Mg II h & k fluxes in a sample of dwarf M stars, *A. & A.*, 228, 443.
- Drake, S.A., Brown, A., and Linsky, J.L. 1984, The origin of low-velocity absorption components in the Mg II resonance lines of hybrid-chromosphere stars, *Ap. J.*, 284, 774.
- Drechsel, H., and Rahe, J. 1982, On the ionization and velocity structure of expanding circumstellar envelopes, *A. & A.*, 106, 70.
- Drechsel, H., Rahe, J., Holm, A., and Krautter, J. 1981, Phase-dependent optical and ultraviolet observations of the old nova V603 Aquilae (1918), *A. & A.*, 99, 166.
- Drechsel, H., Rahe, J., Kondo, Y., and McClusky Jr., G.E. 1981, The ultraviolet spectrum of UW Canis Majoris, *A. & A. Suppl.*, 45, 473.
- Drechsel, H., Rahe, J., Wargau, W., and Wolf, B. 1982, The interacting early-type contact binary SV Centauri, *A. & A.*, 110, 246.
- Drew, J., and Verbunt, F. 1985, Investigation of a wind model for cataclysmic variable ultraviolet resonance line emission, *M.N.R.A.S.*, 213, 191.
- Drew, J.E., and Verbunt, F. 1988, Regular orbital variations in the ultraviolet resonance lines of YZ Cnc, *M.N.R.A.S.*, 234, 341.
- Drilling, J.S. 1981, The spectra of two new intermediate helium stars, *Ap. J.*, 250, 701.
- Drilling, J.S. 1985, LSS 2018: a double-lined spectroscopic binary central star with an extremely large reflection effect, *Ap. J.*, 294, L107.

Drilling, J.S., Holberg, J.B., and Schonberner, D. 1984, Far-ultraviolet spectrophotometry of two very hot O type subdwarfs, Ap. J., 283, L67.

Drilling, J.S., and Schonberner, D. 1982, The hot component of KS Persei (HD 30353), A. & A., 113, L22.

Drilling, J.S., and Schonberner, D. 1989, On the nature of newly formed dust around the hydrogen-deficient star V348 Sagittarii, Ap. J., 343, L45.

Drilling, J.S., Schonberner, D., Heber, U., and Lynas-Gray, A.E. 1984, Spectrophotometry of extreme helium stars: ultraviolet fluxes and effective temperatures, Ap. J., 278, 224.

Dudley, R.E., and Jeffery, C.S. 1990, The mass ratio of upsilon Sgr from ultraviolet radial velocities, M.N.R.A.S., 247, 400.

Dufour, R.J. 1984, The unique planetary nebula NGC 2818, Ap. J., 287, 341.

Dufour, R.J. 1986, XVII. Abundances in dwarf irregular galaxies, P.A.S.P., 98, 1025.

Dufour, R.J., Garnett, D.R., and Shields, G.A. 1988, The abundances of carbon and nitrogen in I Zw 18, Ap. J., 332, 752.

Dufour, R.J., Shields, G.A., and Talbot, R.J. 1982, The carbon abundance in the Magellanic Clouds from IUE observations of H II regions, Ap. J., 252, 461.

Dufton, P.L., Keenan, F.P., and Kingston, A.E. 1984, Si III emission line strengths in low density plasmas, M.N.R.A.S., 209, 1P.

Dufton, P.L., and Lennon, D.J. 1989, The ultra-violet spectrum of the peculiar early-type supergiant, HD 157038, A. & A., 211, 397.

Dultzin-Hacyan, D. 1983, The UV spectrum of PKS2251+113 and physical conditions in the Broad Line Region, A. & A., 128, 148.

Dultzin-Hacyan, D., Salas, L., and Daltabuit, E. 1982, IUE observations of quasars 3C249.1 and 3C232, A. & A., 111, 43.

Dupree, A.K., Baliunas, S.L., Guinan, E.F., Hartmann, L., Nassiopoulos, G.E., and Sonneborn, G. 1987, Periodic photospheric and chromospheric modulation in Alpha Orionis (Betelgeuse), Ap. J., 317, L85.

Dupree, A.K., Davis, R.J., Gursky, H., Hartmann, L.W., Raymond, J.C., Boggess, A., Holm, A., Kondo, Y., Wu, C.-C., Macchett, F., Sandford, M.C.W., Willis, A.J., Wilson, R., Ciatti, F., Hutchings, J.B., Johnson, H.M., Jugaku, J., Morton, D.C., Treves, A., and van den Heuvel, E.P.J. 1978, IUE observations of X-ray sources: HD 153919 (4U1700-37), HDE 226868 (Cyg X-1), HZ Her (Her X-1), Nature, 275, 400.

Dupree, A.K., Gursky, H., Black, J.H., Davis, R.J., Hartmann, L., Matilsky, T., Raymond, J.C., Hammerschlag-Hensberge, G., van den Heuvel, E.P.J., Burger, M., Lamers, H.J.G.L.M., Vanden Bout, P.A., Morton, D.C., de Loore, C., van Dessel, E.L., Menzies, J.W., Whitelock, P.A., Watson, M., Sanford, P.W., and Pollard, G.S.G. 1980, Simultaneous ultraviolet, optical and X-ray observations of the X-ray source Vela X-1 (HD 77581), Ap. J., 238, 969.

Dupree, A.K., Harper, G.M., Hartmann, L., Jordan, C., Rodgers, A.W., and Smith, G.H. 1990, Chromospheres of two red giants in NGC 6752, Ap. J., 361, L9.

Dupree, A.K., Hartmann, L., Black, J.H., Davis, R.J., Matilsky, T.A., Raymond, J.C., and Gursky, H. 1979, Ultraviolet spectroscopic measurements of globular clusters, Ap. J., 230, L89.

Dupree, A.K., Hartmann, L., and Smith, G.H. 1990, Chromospheres of metal-deficient field giants, Ap. J., 353, 623.

Dupree, A.K., Kirshner, R.P., Nassiopoulos, G.E., Raymond, J.C., and Sonneborn, G. 1987, The interstellar medium toward SN 1987A, Ap. J., 320, 597.

Dupree, A.K., and Raymond, J.C. 1982, Discovery of highly ionized species in the ultraviolet spectrum of Feige 24, Ap. J., 263, L63.

Dupree, A.K., and Raymond, J.C. 1983, White dwarfs and the interstellar medium, Ap. J., 275, L71.

Durrance, S.T. 1982, The Carbon Monoxide fourth positive bands in the Venus dayglow. I. Synthetic spectra, Jour. Geophys. Res., 86, 9115.

- Durrance, S.T., Feldman, P.D., and Moos, H.W. 1982, The spectrum of the Jovian aurora 1150-1700 Å, Geophys. Res. Lett., 9, 652.
- Durrance, S.T., Feldman, P.D., and Weaver, H.A. 1983, Rocket detection of ultraviolet emission from neutral oxygen and sulfur in the Io torus, Ap. J., 267, L125.
- Durrance, S.T., and Moos, H.W. 1982, Intense Lyman Alpha emission from Uranus, Nature, 299, 428.
- Durret, F. 1990, Long slit spectroscopy of emission line galaxies. II. Physical properties of the ionized gas and general characteristics, A. & A., 229, 351.
- Durret, F., and Bergeron, J. 1986, The narrow line active galaxies NGC 3081 and NGC 4507: from the infrared to the UV, A. & A., 156, 51.
- Durret, F., and Bergeron, J. 1988, Long slit spectroscopy of emission line galaxies. I. The sample, A. & A. Suppl., 75, 273.
- Durret, F., Bergeron, J., and Boksenberg, A. 1985, Gas and star content and spatial distribution in the giant extragalactic H II region Tol 89, A. & A., 143, 347.
- Durret, F., and Tarrab, I. 1988, Markarian 52: a gas-rich starburst galaxy, A. & A., 205, 9.
- Eaton, J.A. 1983, Chromospheric emission of W Ursae Majoris-type stars and its relation to the structure of their common envelopes, Ap. J., 268, 800.
- Eaton, J.A. 1988, The atmospheric eclipse of 31 Cygni in the ultraviolet, Ap. J., 333, 288.
- Eaton, J.A. 1990, The long-period binary UU Cancri as a system that has reversed its mass ratio, M.N.R.A.S., 247, 62.
- Eaton, J.A., Cherepashchuk, A.M., and Khaliullin, Kh.F. 1985, Analysis of ultraviolet atmospheric eclipses in the Wolf-Rayet binary CV Serpentis, Ap. J., 296, 222.
- Eaton, J.A., Cherepashchuk, A.M., and Khaliullin, Kh.F. 1985, Stratification of the extended atmosphere of the Wolf-Rayet component of V444 Cygni, Ap. J., 297, 266.

- Eaton, J.A., and Johnson, H.R. 1988, The outer atmospheres of the coolest M giants: ultraviolet spectra of Rho Persei, 2 Centauri, g Herculis, Theta Apodis, and R Lyrae, *Ap. J.*, 325, 355.
- Eaton, J.A., Johnson, H.R., and Cadmus, Jr., R.R. 1990, Chromospheric variability of M giant semiregular variables, *Ap. J.*, 364, 259.
- Eaton, J.A., Johnson, H.R., O'Brien, G.T., and Baumert, J.H. 1985, Ultraviolet spectra and chromospheres of R stars, *Ap. J.*, 290, 276.
- Eaton, J.A., Kondo, Y., McCluskey, Jr., G.F., and Shore, S.N. 1990, The long-period binary AL Velorum: the atmospheric eclipse of a bright K0 giant, *A.J.*, 100, 799.
- Ebbets, C.D., and Savage, B.D. 1982, Analysis of the ultraviolet spectrum RWT 152: a subluminous O star with a main-sequence visual spectrum, *Ap. J.*, 262, 234.
- Echevarria, J., Jones, D.H.P., Wallis, R.E., Mayo, S.K., Hassall, B.J.M., Pringle, J.E., and Whelan, J.A.J. 1981, Outburst spectra of UZ Serpentis, *M.N.R.A.S.*, 197, 565.
- Echevarria, J., Schwarzenberg-Czerny, A., Jones, D.H.P., Dick, J.S.B., Ward, M., Costero, R., and Gilmozzi, R. 1988, Multiwavelength observations of the AM Herculis type system: MR Serpentis, *Rev. Mex. Astron. Astrof.*, 16, 87.
- Edelson, R.A., and Krolik, J.H. 1988, The discrete correlation function: a new method for analyzing unevenly sampled variability data, *Ap. J.*, 333, 646.
- Edelson, R.A., Krolik, J.H., and Pike, G.F. 1990, Broad-band properties of the CfA Seyfert galaxies. III. Ultraviolet variability, *Ap. J.*, 359, 86.
- Edelson, R.A., and Malkan, M.A. 1986, Spectral energy distributions of active galactic nuclei between 0.1 and 100 microns, *Ap. J.*, 308, 59.
- Eichendorf, W., Heck, A., Caccin, B., Russo, G., and Sollazzo, C. 1982, UV, optical and IR observations of the Cepheid R Muscae, *A. & A.*, 109, 274.

Eichendorf, W., Heck, A., Isserstedt, J., Lub, J., Pakull, M., Reipurth, B., and van Genderen, A.M. 1981, On the nature of the 125-Day Cepheid V810 Cen (=HR 4511): IUE spectra, A. & A., 93, L5.

Eker, Z. 1989, High-resolution H-alpha spectroscopy of the bright RS CVn system HR 7275, M.N.R.A.S., 238, 675.

Elgaroy, O., Engvold, O., and Carlsson, M. 1990, Deviation from the Wilson-Bappu relationship in faint red dwarf stars, A. & A., 234, 308.

Elgaroy, O., Joras, P., Engvold, O., Jensen, E., Pettersen, B.R., Ayres, T.R., Ambruster, C., Linsky, J.L., Clark, M., Kunkel, W., and Marang, F. 1988, Ultraviolet emission lines and optical photometry of the flare star AT Microscopii, A. & A., 193, 211.

Ellis, R.S., Gondhalekar, P.M., and Efstatithiou, G. 1982, The ultraviolet spectra of the nuclei of spiral galaxies - I. NGC 4594, 3031, 5194 and 4258, M.N.R.A.S., 201, 223.

Elvis, M., and Fabbiano, G. 1984, X-ray and UV observations of two radio-bright quasars, Ap. J., 280, 91.

Elvis, M., Green, R.F., Bechtold, J., Schmidt, M., Neugebauer, G., Soifer, B.T., Matthews, K., and Fabbiano, G. 1986, X-ray spectra of PG quasars. I. The continuum from X-rays to infrared, Ap. J., 310, 291.

Emmering, R.T., and Chevalier, R.A. 1989, Circumstellar infrared and scattered light echoes from SN 1987A, Ap. J., 338, 388.

Encrenaz, T., Combes, M., Atreya, S.K., Romani, P.N., Fricke, K., Moore, V., Hunt, G., Wagener, R., Caldwell, J., Owen, T., and Butterworth, P. 1986, A study of the upper atmosphere of Uranus using the IUE, A. & A., 162, 317.

Engvold, O., Ayres, T.R., Elgaroy, O., Jensen, E., Joras, P.B., Kjeldseth-Moe, O., Linsky, J.L., Schnopper, H.W., and Westergaard, N.J. 1988, Far-ultraviolet and X-ray emission of the long period RS CVn star Sigma Geminorum, A. & A., 192, 234.

Eriksson, K., Gustafsson, B., Johnson, H.R., Querci, F., Querci, M., Baumert, J.H., Carlsson, M., and Olofsson, H. 1986, The outer atmosphere of the carbon star TX Piscium, A. & A., 161, 305.

- Eriksson, K., Linsky, J.L., and Simon, T. 1983, Outer atmospheres of cool stars. XIV. A model for the chromosphere and transition region of Beta Ceti (G9.5 III), Ap. J., 272, 665.
- Etzel, P.B. 1988, The nature of TT Hydreae, A.J., 95, 1204.
- Evans, A., Whittet, D.C.B., Davies, J.K., Kilkenny, D., and Bode, M.F. 1985, IUE observations of RCB stars during extinction minima, M.N.R.A.S., 217, 767.
- Evans, A., Zarnecki, J.C., McDonnell, J.A.M., Bode, M.F., Taylor, G.E., and Morley, T. 1985, Observations of Comet Crommelin - IV. Upper limit on the optical depth in the coma at ultraviolet wavelengths, M.N.R.A.S., 217, 669.
- Evans, N.R. 1984, X Cygni: duplicity, period stability, and atmospheric velocity structure, Ap. J., 281, 760.
- Evans, N.R. 1988, A search for the binary companion of Polaris, P.A.S.P., 100, 724.
- Evans, N.R. 1989, The binary companion of the classical Cepheid AW Per, A.J., 97, 1737.
- Evans, N.R. 1990, The orbit and colors of the Cepheid S Muscae, P.A.S.P., 102, 551.
- Evans, N.R., and Bolton, C.T. 1990, The mass of the classical Cepheid SU Cygni, Ap. J., 356, 630.
- Evans, N.R., and Lyons, R. 1986, Radial-velocity curves for the classical Cepheids T Vul, TT Aql, and Y Oph, A.J., 92, 436.
- Evans, N.R., Szabados, L., and Udalska, J. 1990, Cepheid companions? FM Aquilae, FN Aquilae, RX Aurigae, Y Lacertae, and RS Orionis, P.A.S.P., 102, 981.
- Evans, N.R., Welch, D.L., Scarfe, C.D., and Teays, T.J. 1990, The orbit and companions of the classical Cepheid FF Aql, A.J., 99, 1598.
- Fabbiano, G., Hartmann, L., Raymond, J., Steiner, J., Branduardi-Raymond, G., and Matilsky, T. 1981, Coordinated X-ray, ultraviolet and optical observations of Am Herculis, U Geminorum, and SS Cygni, Ap. J..

Fabbiano, G., and Panagia, N. 1983, X-ray and ultraviolet observations of extragalactic HII regions, Ap. J., 266, 568.

Fabian, A.C., Nulsen, P.E.J., and Arnaud, K.A. 1984, Diffuse Lyman alpha emission around NGC 1275, M.N.R.A.S., 208, 179.

Fabian, A.C., Pringle, J.E., Stickland, D.J., and Whelan, J.A.J. 1980, Ultraviolet observations of WZ Sagittae in outburst, M.N.R.A.S., 191, 457.

Fahey, R.P. 1984, Comparison of variations in the visible and ultraviolet spectra of a Centauri, Ap. J. Suppl., 55, 507.

Falomo, R. 1990, The high-luminosity BL Lacertae object PKS 0823-22, Ap. J., 353, 114.

Falomo, R., Bouchet, P., Maraschi, L., Tanzi, E.G., and Treves, A. 1988, Quasi-simultaneous ultraviolet, optical and infrared observations of the BL Lacertae object PKS 0048-09, Ap. J., 335, 122.

Falomo, R., Bouchet, P., Maraschi, L., Tanzi, E.G., and Treves, A. 1989, The ultraviolet to infrared energy distribution of the BL Lacertae object PKS 0422+00 at two different brightness levels, Ap. J., 345, 148.

Falomo, R., and Treves, A. 1990, PG 1553+11: a bright optically selected BL Lacertae object, P.A.S.P., 102, 1120.

Fanelli, M.N., O'Connell, R.W., Burstein, D., and Wu, C.-C. 1990, Spectral synthesis in the ultraviolet. III. The spectral morphology of normal stars in the mid-ultraviolet, Ap. J., 364, 272.

Fanelli, M.N., O'Connell, R.W., and Thuan, T.X. 1987, Spectral synthesis in the ultraviolet. I. Far-ultraviolet stellar library, Ap. J., 321, 768.

Fanelli, M.N., O'Connell, R.W., and Thuan, T.X. 1988, Spectral synthesis in the ultraviolet. II. Stellar populations and star formation in blue compact galaxies, Ap. J., 334, 665.

Faraggiana, R. 1989, Heavy elements in the 2000-3000 Å range of four Ap stars, A. & A., 224, 162.

- Faraggiana, R., Castelli, F., Morossi, C., Kondo, Y., and van der Hucht, K.A. 1986, The ultraviolet spectrum of Procyon. I. The atlas from 2030 to 2371 Å, Ap. J. Suppl., 61, 719.
- Faraggiana, R., Gerbaldi, M., and Bohm, C. 1990, The UV spectrum as a signature of the Lambda Bootis character, A. & A., 235, 311.
- Faraggiana, R., and Selvelli, P.L. 1979, The UV spectrum of VV Cep in 1978, A. & A., 76, L18.
- Faulkner, D.R., Honeycutt, R.K., and Johnson, H.R. 1988, On the violet flux of N type carbon stars, Ap. J., 324, 490.
- Federman, S.R., and Lambert, D.L. 1988, The carbon chemistry in interstellar clouds toward moderately reddened stars, Ap. J., 328, 777.
- Feibelman, W.A. 1982, E(B-V) extinction values for 24 planetary nebulae derived from IUE data, A.J., 87, 555.
- Feibelman, W.A. 1982, IUE observations of proto-planetary and variable planetary nebulae. I. V1016 Cygni, HM Sagittae, and HBV 475, Ap. J., 258, 548.
- Feibelman, W.A. 1982, IUE observations of proto-planetary and variable planetary nebulae. II. A search for variability in IC 4997 and NGC 6905, Ap. J., 258, 562.
- Feibelman, W.A. 1982, Ultraviolet shell formation at V1016 Cygni, Ap. J., 263, L69.
- Feibelman, W.A. 1983, Profiles and intensity ratios of the CIV lambda 1548, 1550 emission lines in planetary nebulae, A. & A., 122, 335.
- Feibelman, W.A. 1983, Ultraviolet observations of M1-2 (=VV 8), Ap. J., 275, 628.
- Feibelman, W.A. 1983, IUE observations of the low-excitation planetary nebula Tc-1, P.A.S.P., 95, 886.
- Feibelman, W.A. 1984, IUE observations of the "Butterfly" nebula M2-9, Ap. J., 287, 353.
- Feibelman, W.A. 1985, He2-36: a planetary nebula with a high-velocity jet?, A.J., 90, 2550.

- Feibelman, W.A. 1985, The ultraviolet spectrum of the planetary nebula M3-27, P.A.S.P., 97, 404.
- Feibelman, W.A. 1987, The peculiar planetary nebula 75+35 1, P.A.S.P., 99, 270.
- Feibelman, W.A. 1988, The IUE spectrum of Cn 1-2 (=PK 326-10 1): a southern counterpart to V1016 Cygni and HM Sagittae?, P.A.S.P., 100, 1101.
- Feibelman, W.A., and Aller, L.H. 1983, IUE observations of the perplexing bipolar planetary nebula NGC 2346, Ap. J., 270, 150.
- Feibelman, W.A., and Aller, L.H. 1987, The (C III 1909/Si III 1892) ratio as a diagnostic for planetary nebulae and symbiotic stars, Ap. J., 319, 407.
- Feibelman, W.A., Aller, L.H., Keyes, C.D., and Czyzak, S.J. 1982, Spectrum and chemical composition of the remarkable planetary nebula NGC 6537, Proc. Natl. Acad. Sci., 82, 2202.
- Feibelman, W.A., Boggess, A., Hobbs, R.W., and McCracken, C.W. 1980, Electron densities for six planetary nebulae and HM Sagittae derived from the C III 1907/1909 ratio, Ap. J., 241, 725.
- Feibelman, W.A., Boggess, A., McCracken, C.W., and Hobbs, R.W. 1981, Molecular hydrogen ion absorption in planetary nebulae, A.J., 86, 881.
- Feibelman, W.A., Boggess, A., McCracken, C.W., and Hobbs, R.W. 1981, Electron densities for 10 planetary nebulae derived from the C III 1907/1909 ratio II, Ap. J., 246, 807.
- Feibelman, W.A., and Bruhweiler, F.C. 1989, Terminal velocity of wind, mass loss, and absorption lines of the central star of the planetary nebula 75 +35 1, Ap. J., 347, 901.
- Feibelman, W.A., and Bruhweiler, F.C. 1990, Ultraviolet observations of the enigmatic bipolar nebula M1-92, Ap. J., 354, 262.
- Feibelman, W.A., and Bruhweiler, F.C. 1990, Ultraviolet Fe VII absorption lines in planetary nebula nuclei, hot subdwarfs, and hot degenerate objects, Ap. J., 357, 548.

- Feibelman, W.A., and Fahey, R.P. 1985, Dynamical activity in V1016 Cygni, Ap. J., 292, L15.
- Feibelman, W.A., and Kaler, J.B. 1983, The binary central star of the planetary nebula LT-5, Ap. J., 269, 592.
- Feibelman, W.A., and Bruhweiler, F.C. 1990, FG Sagittae: no hot companion?, A.J., 100, 1248.
- Feinswog, L., Szkody, P., and Garnavich, P. 1988, A spectrophotometric study of IR Gem at outburst and quiescence, A.J., 96, 1702.
- Feitzinger, J.V., Hanuschik, R.W., and Schmidt-Kaler, T. 1983, The ultraviolet spectrum of the supermassive object R136a. I. The mass loss rate, A. & A., 120, 269.
- Feitzinger, J.V., Hanuschik, R.W., and Schmidt-Kaler, Th. 1984, The interstellar lines and the energetics of the inner 30 Doradus nebula from the ultraviolet spectrum of R 136a, M.N.R.A.S., 211, 867.
- Fekel, F.C. 1988, Chromospherically active stars. IV. HD 178450=V478 Lyr: an early-type BY Draconis type binary, A.J., 95, 215.
- Fekel, F.C., Bopp, B.W., Africano, J.L., Goodrich, B.D., Palmer, L.H., Quigley, R., and Simon, T. 1986, Chromospherically active stars. II. HD 82558, a young single BY Draconis variable, A.J., 92, 1150.
- Fekel, F.C., Hall, D.S., Africano, J.L., Gillies, K., Quigley, R., and Fried, R.E. 1985, Chromospherically active stars. I. HD 136905, A.J., 90, 2581.
- Fekel, F.C., Kirkpatrick, J.D., Yang, X., and Strassmeier, K.G. 1989, Chromospherically active stars. VI. HD 136901=UV CrB: a massive ellipsoidal K giant single-lined spectroscopic binary, A.J., 97, 202.
- Fekel, F.C., Moffett, T.J., and Henry, G.W. 1986, A survey of chromospherically active stars, Ap. J. Suppl., 60, 551.
- Fekel, F.C., Quigley, R., Gillies, K., and Africano, J.L. 1987, Chromospherically active stars. III. HD 26337=EI Eri: an RS CVn candidate for the Doppler-imaging technique, A.J., 94, 726.

Fekel, F.C., and Simon, T. 1985, HD 160538 and HD 185510: two active-chromosphere stars with hot companions, A.J., 90, 812.

Feldman, P.D. 1983, Ultraviolet spectroscopy and the composition of cometary ice, Science, 219, 347.

Feldman, P.D. 1986, In-flight analysis of IUE cross-disperser scattered light, A. & A., 159, 342.

Feldman, P.D., A'Hearn, M.F., Festou, M.C., McFadden, L.A., Weaver, H.A., and Woods, T.N. 1986, Is CO₂ responsible for the outbursts of comet Halley?, Nature, 324, 433.

Feldman, P.D., A'Hearn, M.F., and Millis, R.L. 1984, Temporal and spatial behavior of the ultraviolet emissions of Comet IRAS-Araki-Alcock 1983d, Ap. J., 282, 799.

Feldman, P.D., A'Hearn, M.F., Schleicher, D.G., Festou, M.C., Wallis, M.K., Burton, W.M., Hughes, D.W., Keller, H.U., and Benvenuti, P. 1984, Evolution of the ultraviolet coma of comet Austin (1982g), A. & A., 131, 394.

Feldman, P.D., Festou, M.C., A'Hearn, M.F., Arpigny, C., Butterworth, P.S., Cosmovici, C.B., Danks, A.C., Gilmozzi, R., Jackson, W.M., McFadden, L.A., Patriarchi, P., Schleicher, D.G., Tozzi, G.P., Wallis, M.K., Weaver, H.A., and Woods, T.N. 1987, IUE observations of comet P/Halley: evolution of the ultraviolet spectrum between September 1985 and July 1986, A. & A., 187, 325.

Feldman, P.D., Moos, H.W., Clarke, J.T., and Lane, A.L. 1979, Identification of the UV nightglow from Venus, Nature, 279, 221.

Feldman, P.D., Weaver, H.A., and Festou, M.C. 1984, The ultraviolet spectrum of periodic Comet Encke (1980 XI), Icarus, 60, 455.

Feldman, P.D., Weaver, H.A., Festou, M.C., A'Hearn, M.F., Jackson, W.M., Donn, B., Rahe, J., Smith, A.M., and Benvenuti, P. 1980, IUE observations of the UV spectrum of Comet Bradfield, Nature, 286, 132.

Felenbok, P., Czarny, J., Catala, C., and Praderie, F. 1988, Neutral oxygen in Herbig Ae stars, A. & A., 201, 247.

- Ferguson, D.H., Green, R.F., and Liebert, J. 1984, Hot subdwarfs in detached binary systems and thick-disk cataclysmic variables from the Palomar Green Survey, *Ap. J.*, 287, 320.
- Ferguson, D.H., Liebert, J., Cutri, R., Green, R.F., Willner, S.P., Steiner, J.E., and Tokarz, S. 1987, BE Ursae Majoris: A detached binary with a unique reprocessing spectrum, *Ap. J.*, 316, 399.
- Ferguson, D.H., Liebert, J., Green, R.F., McGraw, J.T., and Spinrad, H. 1981, BE Ursae Majoris (PG1155+492): a unique, cataclysmic-variable-like object, *Ap. J.*, 251, 205.
- Ferland, G.J., Lambert, D.L., McCall, M.L., Shields, G.A., and Slovak, M.H. 1982, Physical conditions in the accretion disk of V603 Aquilae, *Ap. J.*, 260, 794.
- Ferland, G.J., and Mushotzky, R.F. 1982, Broad line region clouds and the absorbing material in NGC 4151, *Ap. J.*, 262, 564.
- Ferland, G.J., and Osterbrock, D.E. 1986, IUE spectra and a resulting model of Seyfert 2 galaxies, *Ap. J.*, 300, 658.
- Ferland, G.J., and Osterbrock, D.E. 1987, The ultraviolet and optical emission-line spectrum of III Zw 77, *Ap. J.*, 318, 145.
- Ferland, G.J., and Osterbrok, D.E. 1985, The hydrogen line spectra of narrow-line radio galaxies, *Ap. J.*, 289, 105.
- Ferland, G.J., Rees, M.J., Longair, M.S., and Perryman, M. 1979, Observations of 3C390.3 with the International Ultraviolet Explorer, *M.N.R.A.S.*, 187, 65P.
- Ferland, G.J., Williams, R.E., Lambert, D.L., Shields, G.A., Slovak, M., Gondhalekar, P.M., and Truran, J.W. 1984, IUE observations of DQ Herculis and its nebula, and the nature of the cold nova shells, *Ap. J.*, 281, 194.
- Ferluga, S., and Hack, M. 1985, High-dispersion spectroscopy of the eclipse of Epsilon Aurigae at visible and ultraviolet wavelengths, *A. & A.*, 144, 395.

Fernandez-Castro, T., Cassatella, A., Gimenez, A., and Viotti, R. 1988, IUE observations of Z Andromedae: spectral variations during quiescence and a physical model, Ap. J., 324, 1016.

Fernandez-Castro, T., Gonzalez-Riestra, R., Cassatella, A., and Fuensalida, J.J. 1990, Simultaneous observations of the symbiotic star BF Cygni, A. & A., 227, 422.

Fernandez-Figueroa, M.J., de Castro, E., and Gimenez, A. 1985, IUE observations of the RS CVn systems Z Her, TY Pyx, and HD 155555, A. & A. Suppl., 60, 5.

Fernandez-Figueroa, M.J., de Castro, E., and Rego, M. 1981, The transition region structure of Kappa Ceti, A. & A., 99, 141.

Fernandez-Figueroa, M.J., de Castro, E., and Rego, M. 1983, Emissions from the transition regions and coronae of three cool dwarf stars, A. & A., 119, 243.

Fernandez-Figueroa, M.J., Montesinos, B., and Rego, M. 1984, The transition layer of eleven late-type stars, A. & A., 138, 164.

Fernandez-Figueroa, M.J., Rego, M., and Cornide, M. 1980, Analysis of the far-ultraviolet silicon lines in G dwarf stars, A. & A., 82, 221.

Fernandez-Figueroa, M.J., Sedano, J.L., and de Castro, E. 1986, The Mg II emission in a sample of regular-period RS CVn systems, A. & A., 169, 237.

Fernley, J.A., Lynas-Gray, A.E., Skillen, I., Jameson, R.F., Marang, F., Kilkenny, D., and Longmore, A.J. 1989, The absolute magnitudes of RR Lyrae stars. I. X Arietis, M.N.R.A.S., 236, 447.

Fernley, J.A., Skillen, I., Jameson, R.F., and Longmore, A.J. 1990, The absolute magnitudes of RR Lyrae stars - III. DH Peg, M.N.R.A.S., 242, 685.

Ferro, A.A., and Madore, B.F. 1986, Ultraviolet survey for hot companions among nonvariable yellow supergiants, Ap. J., 302, 767.

Fesen, R.A., Wu, C.-C., Leventhal, M., and Hamilton, A.J.S. 1988, High-velocity ultraviolet iron, silicon, oxygen, and sulfur absorption features associated with the remnant of SN 1006, Ap. J., 327, 164.

- Festou, M.C., Arpigny, C., Bertaux, J.L., Carey, W., Danks, T., Gilmozzi, R., Hughes, D.W., Ip, W., Patriarchi, P., Tozzi, G.P., Wallis, M.K., and Zarnecki, J. 1986, The first near-UV observation of P/Halley, A. & A., 155, L17.
- Festou, M.C., Carey, W.C., Evans, A., Wallis, M.K., and Keller, H.U. 1985, IUE observations of Comet P/Crommelin (1983 n), A. & A., 152, 170.
- Festou, M.C., and Feldman, P.D. 1981, The forbidden oxygen lines in comets, A. & A., 103, 154.
- Festou, M.C., Feldman, P.D., A'Hearn, M.F., Arpigny, C., Cosmovici, C.B., Danks, A.C., McFadden, L.A., Gilmozzi, R., Patriarchi, P., Tozzi, G.P., Wallis, M.K., and Weaver, H.A. 1986, IUE observations of Comet Halley during the Vega and Giotto encounters, Nature, 321, 361.
- Festou, M.C., Feldman, P.D., and Weaver, H.A. 1982, The ultraviolet bands of the carbon dioxide ion in comets, Ap. J., 256, 331.
- Fink, U., and DiSanti, M.A. 1990, The production rate and spatial distribution of H₂O for comet P/Halley, Ap. J., 364, 687.
- Finley, D.S., Basri, G., and Bowyer, S. 1990, The temperature scale of hot DA white dwarfs: temperatures from far-ultraviolet continuum fluxes, Ap. J., 359, 483.
- Fitzpatrick, E.L. 1982, The detection of ultraviolet photospheric absorption in the spectra of two Wolf-Rayet stars, Ap. J., 261, L91.
- Fitzpatrick, E.L. 1984, Ultraviolet interstellar absorption toward stars in the Small Magellanic Cloud. II. Sk 159, Ap. J., 282, 436.
- Fitzpatrick, E.L. 1985, Interstellar extinction variations in the Large Magellanic Cloud, Ap. J., 299, 219.
- Fitzpatrick, E.L. 1985, Ultraviolet interstellar absorption toward stars in the Small Magellanic Cloud. III. The structure and kinematics of the Small Magellanic Cloud, Ap. J. Suppl., 59, 77.
- Fitzpatrick, E.L. 1986, An average interstellar extinction curve for the Large Magellanic Cloud, A.J., 92, 1068.

- Fitzpatrick, E.L. 1987, The properties of OB supergiants in the Large Magellanic Cloud. I. Energy distributions of 10 B supergiants, Ap. J., 312, 596.
- Fitzpatrick, E.L., and Massa, D. 1986, An analysis of the shapes of ultraviolet extinction curves. I. The 2175 Å bump, Ap. J., 307, 286.
- Fitzpatrick, E.L., and Massa, D. 1988, An analysis of the shapes of ultraviolet extinction curves. II. The far-UV extinction, Ap. J., 328, 734.
- Fitzpatrick, E.L., and Massa, D. 1990, An analysis of the shapes of ultraviolet extinction curves. III. An atlas of ultraviolet extinction curves, Ap. J. Suppl., 72, 163.
- Fitzpatrick, E.L., and Savage, B.D. 1983, Ultraviolet interstellar absorption toward HD 5980 in the Small Magellanic Cloud, Ap. J., 267, 93.
- Fitzpatrick, E.L., and Savage, B.D. 1984, International Ultraviolet Explorer observations of stars in 30 Doradus: extinction and stellar continua, Ap. J., 279, 578.
- Fitzpatrick, E.L., and Savage, B.D. 1985, Ultraviolet interstellar absorption toward stars in the Small Magellanic Cloud. IV. Highly ionized gas associated with the Small Magellanic Cloud, Ap. J., 292, 122.
- Fitzpatrick, E.L., Savage, B.D., and Sitko, M.L. 1982, Ultraviolet, visual, and infrared observations of the WC7 variable HD 193793, Ap. J., 256, 578.
- Fitzpatrick, E.L., and Walborn, N.R. 1990, Observations of Sk-69 203 and the interstellar extinction towards SN 1987A, A.J., 99, 1483.
- Fix, J.D., Craven, J.D., and Frank, L.A. 1989, Measurements of the diffuse ultraviolet radiation, Ap. J., 345, 203.
- Flower, D.R. 1980, Ultraviolet spectra of planetary nebulae - II. The young planetary nebula IC 4997, M.N.R.A.S., 193, 511.
- Flower, D.R. 1982, Ultraviolet spectra of planetary nebulae - VIII. The C/O abundance ratio in the Ring nebula, M.N.R.A.S., 199, 15P.

Flower, D.R. , Goharji, A. , and Cohen, M. 1984, Ultraviolet spectra of planetary nebulae - X. Physical conditions in the compact planetary nebula Sw St 1, M.N.R.A.S. , 206, 293.

Flower, D.R. , Nussbaumer, H. , and Schild, H. 1979, The EUV spectra of young planetary nebulae, A. & A. , 72, L1.

Flower, D.R. , and Penn, C.J. 1981, The ultraviolet spectrum of the planetary nebula NGC 6572, M.N.R.A.S. , 194, 13P.

Flower, D.R. , Penn, C.J. , and Seaton, M.J. 1982, Ultraviolet spectra of planetary nebulae - IX. High-dispersion observations of NGC 7662, M.N.R.A.S. , 201, 39P.

Forte, J.C. , Vega, E.I. , Calderon, J.H. , and Feinstein, C. 1987, A CCD study of the Seyfert galaxy NGC 3783, A.J. , 93, 301.

Fosbury, R.A.E. , Boksenberg, A. , Snijders, M.A.J. , Danziger, I.J. , Disney, M.J. , Goss, W.M. , Penston, M.V. , Wamsteker, W. , Wellington, K.J. , and Wilson, A.S. 1982, Very extended ionized gas in radio galaxies - I. A radio, optical and ultraviolet study of PKS 2158 - 380, M.N.R.A.S. , 201, 991.

Fosbury, R.A.E. , Snijders, M.A.J. , Boksenberg, A. , and Penston, M.V. 1981, The ultraviolet spectrum of the active elliptical galaxy NGC 1052, M.N.R.A.S. , 197, 235.

Fracassini, M. , and Pasinetti, L.E. 1982, MgII h and k line observations of Delta Scuti variables, A. & A. , 107, 326.

Franco, J. , and Savage, B.D. 1982, Ultraviolet absorption by highly ionized atoms in the Orion Nebula, Ap. J. , 255, 541.

Franco, M.L. , Crivellari, L. , Molaro, P. , Vladilo, G. , Ramella, M. , Moro Rossi, C. , Allocchio, C. , and Beckman, J.E. 1984, The spectra of late-type dwarfs and sub-dwarfs in the near ultraviolet. III. An atlas of Mg II h and k profiles, A. & A. Suppl. , 58, 693.

Franco, M.L. , Kontizas, E. , Kontizas, M. , and Stalio, R. 1983, A search for UV-line profile variability in five O-stars, A. & A. , 122, 9.

- Franco, M. L., Magazzu, A., and Stalio, R. 1985, Interstellar reddening law towards the nucleus of h Per, A. & A., 147, 191.
- Fransson, C. 1982, X-ray and UV emission from supernova shock waves in stellar winds, A. & A., 111, 140.
- Fransson, C. 1984, Line profiles from supernovae, A. & A., 132, 115.
- Fransson, C. 1984, Comptonization and UV emission lines from Type II supernovae, A. & A., 133, 264.
- Fransson, C. 1988, The circumstellar emission from SN 1987A, Proc. Astron. Soc. Australia, 7, 520.
- Fransson, C., Benvenuti, P., Gordon, C., Hempe, K., Palumbo, G.G.C., Panagia, N., Reimers, D., and Wamsteker, W. 1984, Physical conditions in the UV line emitting region of supernova 1979c in NGC 4321, A. & A., 132, 1.
- Fransson, C., Cassatella, A., Gilmozzi, R., Kirshner, R.P., Panagia, N., Sonneborn, G., and Wamsteker, W. 1989, Narrow ultraviolet emission lines from SN 1987A: evidence for CNO processing in the progenitor, Ap. J., 336, 429.
- Fransson, C., Grewing, M., Cassatella, A., Panagia, N., and Wamsteker, W. 1987, Implications of the UV observations of SN 1987A, A. & A., 177, L33.
- Fransson, C., and Lundqvist, P. 1989, Probing the first hours in the life of SN 1987A, Ap. J., 341, L59.
- Freire Ferrero, R. 1986, Search for transition zone lines in early dwarf A stars, A. & A., 159, 209.
- Freire Ferrero, R., Gouttebroze, P., and Kondo, Y. 1983, The MgII h and k lines in Vega, A. & A., 121, 59.
- Freire Ferrero, R., Gouttebroze, P., and Talavera, A. 1987, Analysis of the MgII resonance lines in the spectrum of Sirius, A. & A., 173, 315.
- Fricke, K.J., Kollatschny, W., and Schleicher, H. 1981, UV observations of the new BL Lac object 0716+71, A. & A., 100, 1.
- Friedjung, M. 1981, Narrow ultraviolet absorption lines of nova Cygni 1978, A. & A., 93, 320.

- Friedjung, M. 1981, A study of the spectrum of WZ Sge during its 1978 outburst, *A. & A.*, 99, 226.
- Friedjung, M., Andrillat, Y., and Puget, P. 1982, The UV spectrum of the old nova HR Del at different orbital phases, *A. & A.*, 114, 351.
- Friedjung, M., Stencel, R.E., and Viotti, R. 1983, Evidence for a warm wind from the red star in symbiotic binaries, *A. & A.*, 126, 407.
- Friend, D.B. 1990, Terminal velocities of the winds from rapidly rotating OB stars, *Ap. J.*, 353, 617.
- Frisch, P.C. 1981, The nearby interstellar medium, *Nature (Letters)*, 293, 377.
- Frisch, P.C., Welty, D.E., York, D.G., and Fowler, J.R. 1990, Ionization in nearby interstellar gas, *Ap. J.*, 357, 514.
- Frisch, P.C., York, D.G., and Fowler, J.R. 1987, The local interstellar medium. VII. The local interstellar wind and interstellar material in front of the nearby star Alpha Ophiuchi, *Ap. J.*, 320, 842.
- Fritz, M.L., Leckenby, H., Sion, E.M., Vauclair, G., and Liebert, J. 1990, The hot DOA1 degenerate HZ 21: a search for circumstellar/photospheric metals and peculiar absorption at He II, *A.J.*, 99, 668.
- Fritz, M.L., Leckenby, H.J., and Sion, E.M. 1990, A search for evidence of past and ongoing mass loss in the hot DO degenerates PG 1159-035, PG 1034+001, and KPD 0005+5106, *A.J.*, 99, 908.
- Fuhrmann, K. 1989, Element identifications in IUE spectra of chemically peculiar stars: the Pt-Au-Hg sequence, *A. & A. Suppl.*, 77, 345.
- Fuhrmann, K. 1989, The IUE-UV spectrum of the CP2 star HR 465, *A. & A. Suppl.*, 80, 399.
- Gahm, G.F., Fischerstrom, C., Liseau, R., and Lindroos, K.P. 1989, Long- and short-term variability of the T Tauri star RY Lupi, *A. & A.*, 211, 115.
- Gahm, G.F., Fredga, K., Liseau, R., and Dravins, D. 1979, The far UV spectrum of the T Tauri Star RU Lupi, *A. & A.*, 73, L4.

Garcia Vargas, M. L., Diaz, A. I., Terlevich, R., and Terlevich, E. 1989, A simple population synthesis model for the continuum of the Seyfert type-2 galaxy Mk 348, *Astrophys. Sp. Sci.*, 157, 125.

Garcia-Alegre, M.C., Ponz, J.D., and Vazquez, M. 1981, IUE MG II doublet observations in F and G main sequence stars, *A. & A.*, 96, 17.

Garcia-Vargas, M. L., Diaz, A. I., Terlevich, R.J., and Terlevich, E. 1990, A population synthesis model for the ultraviolet spectrum of the peculiar galaxy NGC 1672, *Astrophys. Sp. Sci.*, 171, 65.

Garcia, M., Baliunas, S.L., Doxsey, R., Elvis, M., Fabbiano, G., Koenigsberger, G., Patterson, J., Schwartz, D., Swank, J., and Watson, M.G. 1983, Identification and properties of the M Giant/X-Ray system HD 154791 = 2A 1704+241, *Ap. J.*, 267, 291.

Garilli, B., and Tagliaferri, G. 1986, On the X-ray and ultraviolet spectrum of the high-redshift quasar 3C 446, *Ap. J.*, 301, 703.

Garmany, C.D., and Conti, P.S. 1984, Mass loss in O-type stars: parameters which affect it, *Ap. J.*, 284, 705.

Garmany, C.D., and Conti, P.S. 1985, Stellar winds from hot stars in the Magellanic Clouds, *Ap. J.*, 293, 407.

Garmany, C.D., and Fitzpatrick, E.L. 1988, Stellar winds in the Small Magellanic Cloud, *Ap. J.*, 332, 711.

Garmany, C.D., Gordon, L.O., Conti, P.S., and Van Steenberg, M.E. 1981, Mass loss rates from O stars in OB associations, *Ap. J.*, 250, 660.

Garmany, C.D., Massey, P., and Conti, P.S. 1984, Absolute spectrophotometry of Wolf-Rayet stars from 1200 to 7000 Å: a cautionary tale, *Ap. J.*, 278, 233.

Garnett, D.R., and Dinerstein, H.L. 1989, Ultraviolet observations of the planetary nebula NGC 2242, *P.A.S.P.*, 101, 541.

Gaskell, C.M., and Sparke, L.S. 1986, Line variations in quasars and Seyfert galaxies, *Ap. J.*, 305, 175.

Gathier, R., Pottasch, S.R., and Pel, J.W. 1986, Distances to planetary nebulae. I. The reddening-distance method, *A. & A.*, 157, 171.

Genova, R., Beckman, J.E., Vladilo, G., and Molaro, P. 1989, The local interstellar medium: a test-bed for the galactic ISM, *Astrophys. Sp. Sci.*, 156, 243.

Genova, R., Molaro, P., Vladilo, G., and Beckman, J.E. 1990, Mg II observed in the local interstellar medium: the local cloud, *Ap. J.*, 355, 150.

George, I.M., Warwick, R.S., and Bromage, G.E. 1988, X-ray and ultraviolet observations of Markarian 421, *M.N.R.A.S.*, 232, 793.

George, I.M., Warwick, R.S., and McHardy, I.M. 1988, The ultraviolet to X-ray continua of BL Lac objects, *M.N.R.A.S.*, 235, 787.

Ghisellini, G., Maraschi, L., Tanzi, E.G., and Treves, A. 1986, Spectral properties of blazars. I. Objects observed in the far-ultraviolet, *Ap. J.*, 310, 317.

Giampapa, M.S., Calvet, N., Imhoff, C.L., and Kuhi, L.V. 1981, IUE observations of pre-main-sequence stars. I. Mg II and Ca II resonance line fluxes for T Tauri stars, *Ap. J.*, 251, 113.

Giampapa, M.S., Golub, L., Peres, G., Serio, S., and Vaiana, G.S. 1985, Closed coronal structures. VI. Far-ultraviolet and X-ray emission from active late-type stars and the applicability of coronal loop models, *Ap. J.*, 289, 203.

Giampapa, M.S., Worden, S.P., and Linsky, J.L. 1982, Stellar model chromospheres XIII: M dwarf stars, *Ap. J.*, 258, 740.

Gilheany, S., Bates, B., Catney, M.G., and Dufton, P.L. 1990, Stellar mass loss in late B-type supergiants, *Astrophys. Sp. Sci.*, 169, 85.

Gilmozzi, R. 1988, SN 1987A in the UV: the progenitor star, the reddening and the possible light echo, *Proc. Astron. Soc. Australia*, 7, 397.

Gimenez, A., Reglero, V., and Fabregat, J. 1990, Ultraviolet to near-infrared continuum flux distribution in the active binary RS Canum Venaticorum, *Astrophys. Sp. Sci.*, 169, 233.

Giovannelli, F., Bartolini, C., Guarnieri, A., Piccioni, A., Burger, M., van Dessel, E.L., Kurt, V.G., Sheffer, E.K., de Martino, D., Waters, R., Gonzalez Martinez-Pais, I., Gnedin, Yu. N., Larionov, V.M., and Shakovskaya, N.I. 1990, Fourteen years of multifrequency-coordinated observations of the X-ray/Be system A 0535+26/HDE 245770, *Astrophys. Sp. Sci.*, 169, 139.

Giovannelli, F., Gonzalez Martinez-Pais, I., Gaudenzi, S., Lombardi, R., Rossi, C., and Claudi, R.U. 1990, Multifrequency behaviour of the dwarf nova SS Cygni, *Astrophys. Sp. Sci.*, 169, 125.

Giovannelli, F., Rossi, C., Castaldo, D., Covino, E., Errico, L., Vittone, A.A., Bisnovatyi-Kogan, G.S., Kurt, V.G., Lamzin, S.A., and Sheffer, E.K. 1990, Multifrequency monitoring of the pre-main-sequence star RU Lupi, *Astrophys. Sp. Sci.*, 169, 55.

Gladstone, G.R., and Yung, Y.L. 1983, An analysis of the reflection spectrum of Jupiter from 1500 Å to 1740 Å, *Ap. J.*, 266, 415.

Glassgold, A.E., Bregman, J.N., Huggins, P.J., Kinney, A.L., Pica, A.J., Pollock, J.T., Leacock, R.J., Smith, A.G., Webb, J.R., Wisniewski, W.Z., Jeske, N., Spinrad, H., Henry, R.B.C., Miller, J.S., Impey, C., Neugebauer, G., Aller, M.F., Aller, H.D., Hodge, P.E., Balonek, T.J., Dent, W.A., and O'Dea, C.P. 1983, Multifrequency observations of the flaring quasar 1156+295, *Ap. J.*, 274, 101.

Glebocki, R., Sikorski, J., Bielicz, E., and Krogulec, M. 1986, Circumstellar envelope around the binary system Lambda And, *A. & A.*, 158, 392.

Glebocki, R., and Stawikowski, A. 1988, Are tides responsible for enhanced Mg II emission in late-type binaries?, *A. & A.*, 189, 199.

Goebel, J.H. 1983, Observation of ice mantles toward HD 29647, *Ap. J.*, 268, L41.

Goharji, A., and Adams, S. 1984, The C/O abundance ratio in the planetary nebula IC 2501, *M.N.R.A.S.*, 210, 683.

Golay, M., and Mauron, N. 1982, UV and visible photometry of the brightest Pleiades stars, *A. & A. Suppl.*, 47, 547.

- Goldberg, L. 1981, "P Cygni" profiles in P Cygni, A. & A., 104, L7.
- Goldsmith, M.J., Evans, A., Albinson, J.S., and Bode, M.F. 1990, Effective temperatures of RCB stars, M.N.R.A.S., 245, 119.
- Gondhalekar, P.M. 1985, Depletion of sulphur in the interstellar medium, M.N.R.A.S., 217, 585.
- Gondhalekar, P.M. 1989, Ultraviolet spectra of a large sample of quasars. I. Data and data reduction, M.N.R.A.S., 237, 739.
- Gondhalekar, P.M. 1990, Ultraviolet spectra of a large sample of quasars. - II. Variability of Ly-alpha and C IV emission lines, M.N.R.A.S., 243, 443.
- Gondhalekar, P.M., O'Brien, P., and Wilson, R. 1986, Ultraviolet spectra of quasars in the redshift interval 0.3 to 2.0, M.N.R.A.S., 222, 71.
- Gondhalekar, P.M., and Phillips, A.P. 1980, Interstellar carbon monoxide in the direction of the supernova remnant S147, M.N.R.A.S., 191, 13P.
- Gondhalekar, P.M., Willis, A.J., Morgan, D.H., and Nandy, K. 1980, Ultraviolet studies of the Magellanic Clouds - I. Interstellar lines in the spectra of FD 70 and SK-71-45, M.N.R.A.S., 193, 875.
- Gondhalekar, P.M., and Wilson, R. 1980, UV spectra of the twin QSOs 0957+561 A, B, Nature, 285, 461.
- Gondhalekar, P.M., and Wilson, R. 1982, IUE observations of variability and differences in the UV spectra of double quasar 0957+561 A,B, Nature, 296, 415.
- Gondoin, P., Mangeney, A., and Praderie, F. 1987, Solar-type giants: new X-ray detections from EXOSAT observations, A. & A., 174, 187.
- Gonzalez-Riestra, R., Cassatella, A., and Fernandez-Castro, T. 1990, The UV variability of BF Cygni, A. & A., 237, 385.
- Gonzalez-Riestra, R., Rego, M., and Zamorano, J. 1987, Star formation in the nucleus of the galaxy NGC 5253, A. & A., 186, 64.

- Goodrich, R.W. 1990, Pa-beta measurements and reddening in Seyfert 1.8 and 1.9 galaxies, Ap. J., 355, 88.
- Goodrich, R.W., and Dahari, O. 1985, M4-18: a young, cool planetary nebula, Ap. J., 289, 342.
- Goodrich, R.W., and Keel, W.C. 1986, Ultraviolet spectrophotometry of the three LINERs, Ap. J., 305, 148.
- Grady, C.A., Bjorkman, K.S., and Snow, T.P. 1987, Highly ionized stellar winds in Be stars: the evidence for aspect dependence, Ap. J., 320, 376.
- Grady, C.A., Bjorkman, K.S., Snow, T.P., Sonneborn, G., Shore, S.N., and Barker, P.K. 1989, Highly ionized stellar winds in Be stars. II. Winds in B6-B9.5e stars, Ap. J., 339, 403.
- Grady, C.A., Snow, T.P., and Cash, W.C. 1984, Line profile variation in Delta Orionis A, Iota Orionis A, and 15 Monocerotis, Ap. J., 283, 218.
- Grady, C.A., Snow, T.P., and Timothy, J.G. 1983, Observations of Of-star wind variability, Ap. J., 271, 691.
- Grady, C.A., Sonneborn, G., Wu, C.-C., and Henrichs, H.F. 1987, Recurrent episodic mass loss in a B2e star: 66 Ophiuchi, 1982-1985, Ap. J. Suppl., 65, 673.
- Grandi, S.A. 1982, The 3000 Å bump in quasars, Ap. J., 255, 25.
- Grandi, S.A. 1983, Reddening indicators for quasars and Seyfert 1 galaxies, Ap. J., 268, 591.
- Green, J., Jelinsky, P., and Bowyer, S. 1990, The extreme ultraviolet spectrum of G191-B2B and the ionization of the local interstellar medium, Ap. J., 359, 499.
- Green, R.F., and Liebert, J. 1981, The ultraviolet spectra of the magnetic degenerate star GD 229, P.A.S.P., 93, 105.
- Green, R.F., Pier, J.R., Schmidt, M., Estabrook, F.B., Lane, A.L., and Wahlquist, H.D. 1980, Observations of quasars with the International Ultraviolet Explorer satellite, Ap. J., 239, 483.
- Greenberg, J.M., and Chlewicki, G. 1983, A far-ultraviolet extinction law: what does it mean?, Ap. J., 272, 563.

- Greenstein, J.L. 1980, An absorption line in the ultraviolet spectrum of 40 Eridani B, Ap. J., 241, L89.
- Greenstein, J.L. 1981, Anomalous extinction in the planetary nebula Abell 30, Ap. J., 245, 124.
- Greenstein, J.L. 1983, A spectrophotometric study of some cool white dwarfs, M.N.R.A.S., 203, 1213.
- Greenstein, J.L. 1984, The identification of hydrogen in Grw +70 8247, Ap. J., 281, L47.
- Greenstein, J.L. 1988, The companion of the white dwarf G29-38 as a brown dwarf, A.J., 95, 1494.
-
- Greenstein, J.L., and Oke, J.B. 1979, Ultraviolet spectrophotometry of degenerate stars, Ap. J., 229, L141.
- Greenstein, J.L., and Oke, J.B. 1982, RW Sextantis, a disk with a hot, high-velocity wind, Ap. J., 258, 209.
- Greggio, L., and Renzini, A. 1990, Clues on the hot star content and the ultraviolet output of elliptical galaxies, Ap. J., 364, 35.
- Gregory, S., Ptak, R., and Stoner, R. 1982, C IV and Lyman-alpha emission lines in Seyfert 1 Galaxies, Ap. J., 261, 30.
- Grewing, M., Bianchi, L., and Cassatella, A. 1986, HD 32918: ultraviolet spectrum and optical behaviour, A. & A., 164, 31.
- Grewing, M., Bianchi, L., and Garrido, R. 1989, Properties of the components of the UZ Librae system, A. & A., 223, 172.
- Grewing, M., Boksenberg, A., Seaton, M.J., Snijders, M.A.J., Wilson, R., Boggess, A., Bohlin, R.C., Perry, P.M., Schiffer III, F.H., Gondhalekar, P.M., Macchett, F., Savage, B.D., Jenkins, E.B., Johnson, H.M., Perinotto, M., and Whittet, D.C.B. 1978, IUE observations of the interstellar medium, Nature, 275, 394.
- Grewing, M., and Neri, R. 1990, Extinction-independent determination of temperatures for central stars of planetary nebulae, A. & A., 236, 223.
- Griffin, R.F., Parsons, S.B., Dempsey, R., and Bopp, B.W. 1990, Orbital elements and optical spectroscopy of the enigmatic cF + B binary system HD 207739, P.A.S.P., 102, 535.

Groenewegen, M.A.T., and Lamers, H.J.G.L.M. 1989, The winds of O-stars. I. An analysis of the UV line profiles with the SEI method, A. & A. Suppl., 79, 359.

Groenewegen, M.A.T., Lamers, H.J.G.L.M., and Pauldrach, A.W.A. 1989, The winds of O-stars. II. The terminal velocities of stellar winds of O-type stars, A. & A., 221, 78.

Groote, D., and Hunger, K. 1982, Shell and photosphere of Sigma Ori E: new observations and improved model, A. & A., 116, 64.

Groote, D., and Reimers, D. 1983, Detection of a late B star companion of the bright cluster giant c Pup = HD 63032, A. & A., 119, 319.

Gruschinske, J., Hamann, W.R., Kudritzki, R.P., Simon, K.P., and Kaufmann, J.P. 1983, Non-LTE analysis of subluminous O-stars. V. The binary system HD 128220, A. & A., 121, 85.

Guinan, E.F., and Maloney, F.P. 1985, The apsidal motion of the eccentric eclipsing binary DI Herculis - an apparent discrepancy with general relativity, A.J., 90, 1519.

Guinan, E.F., and Sion, E.M. 1982, Ultraviolet spectroscopy of the nova-like variable V3885 Sagittarii (=CD -42 14462), Ap. J., 258, 217.

Guinan, E.F., and Sion, E.M. 1984, IUE spectroscopy of the degenerate components in the Hyades close binaries V471 Tauri and HZ9, A.J., 89, 1252.

Gulkis, S., Batelaan, P.D., Frerking, M.A., Klein, M.J., Kuiper, T.B.H., Pickett, H.M., Schaefer, M.M., Wannier, P., Bockelee-Morvan, D., Crovisier, J., Encrenaz, P.J., Zimmermann, P., and Destombes, J.L. 1989, Search for water in comet P/Halley at 380 GHz, A. & A., 213, 465.

Gursky, H., Dupree, A.K., Hartmann, L.W., Raymond, J., Davis, R.J., Black, J., Matilsky, T.A., Howarth, I.D., Willis, A.J., Wilson, R., Sandford, M.C.W., Vanden Bout, P., Sanner, F., Hammerschlag-Hensberge, G., van den Heuvel, E.P.J., Lamers, H.J.G.L.M., Burger, M., and de Loore, C. 1980, The observations of the X-ray source HZ Hercules/X-1, Ap. J., 237, 163.

Gurzadyan, G.A. 1987, The classification of the shapes of stellar chromospheric emission lines, A. & A., 173, 284.

- Gurzadyan, G.A. 1989, Determination of effective temperatures of the accretion disks in symbiotic stars, *Astrophys. Sp. Sci.*, 158, 123.
- Gurzadyan, G.A., Cholakyan, V.G., Kondo, Y., Terzian, Y., and Shore, S.N. 1990, The Mg II h and k interstellar lines in the spectrum of the G-type giant HD 156854, *P.A.S.P.*, 102, 1387.
- Gustafsson, B., Bell, R.A., Fredga, K., and Gahm, G.F. 1980, The ultraviolet flux of HD 122563, *A. & A.*, 89, 255.
- Hack, M. 1979, The ultraviolet spectrum of the hot halo star Feige 86, *A. & A.*, 74, L4.
- Hack, M. 1979, IUE observations of the symbiotic star CH Cygni during an active phase, *Nature*, 279, 305.
- Hack, M. 1980, The ultraviolet high-resolution spectrum of Feige 86, *A. & A.*, 81, L1.
- Hack, M. 1981, The ultraviolet spectrum of the eclipsing binary Zeta Aurigae, *A. & A.*, 99, 185.
- Hack, M., Engin, S., Rusconi, L., Sedmak, G., Yilmaz, N., and Boehm, C. 1988, Line spectrum variations during the CH Cygni outburst of 1977-1986, *A. & A. Suppl.*, 72, 391.
- Hack, M., Engin, S., and Yilmaz, N. 1984, Visual and ultraviolet spectrum of the eclipsing binary V367 Cygni, *A. & A.*, 131, 147.
- Hack, M., Engin, S., and Yilmaz, N. 1989, A study of the ultraviolet spectrum of VV Cephei, *A. & A.*, 225, 143.
- Hack, M., and Selvelli, P.L. 1978, IUE observations of the eclipsing binary Epsilon Aurigae, *Nature*, 276, 376.
- Hack, M., and Selvelli, P.L. 1979, The ultraviolet spectrum of the eclipsing binary Epsilon Aurigae, *A. & A.*, 75, 316.
- Hack, M., and Selvelli, P.L. 1982, The ultraviolet spectrum of CH Cygni during the outburst started in 1977, *A. & A.*, 107, 200.

Hagen, H.-J., Hempe, K., and Reimers, D. 1987, A study of UV spectra of Zeta Aur/VV Cep stars. X. Mass-loss of Alpha Sco A from high-resolution IUE spectra of Alpha Sco B, *A. & A.*, 184, 256.

Hagen, W., Black, J.H., Dupree, A.K., and Holm, A.V. 1980, Ultraviolet spectroscopic observations of VV Cephei, *Ap. J.*, 238, 203.

Haisch, B.M. 1986, Coronae on stars, *Irish Astron. J.*, 17, 200.

Haisch, B.M., and Basri, G. 1985, IUE spectra of G0 V-G5 V solar-type stars, *Ap. J. Suppl.*, 58, 179.

Haisch, B.M., Bookbinder, J.A., Maggio, A., Vaiana, G.S., and Bennett, J.O. 1990, IUE and Einstein survey of late-type giant and supergiant stars and the dividing line, *Ap. J.*, 361, 570.

Haisch, B.M., Butler, C.J., Doyle, J.G., and Rodono, M. 1987, Rotational modulation and flares on RS CVn and BY Dra-type stars. V. EXOSAT and IUE observations of a flare on EQ Pegasi, *A. & A.*, 181, 96.

Haisch, B.M., Butler, C.J., Foing, B., Rodono, M., and Giampapa, M.S. 1990, Rotational modulation and flares on RS Canum Venaticorum and BY Draconis-type stars. XV. Observations of Proxima Centauri and solar calibration data, *A. & A.*, 232, 387.

Haisch, B.M., and Linsky, J.L. 1980, Observations of the quiescent corona, transition region and chromosphere in the dMe flare star Proxima Centauri, *Ap. J.*, 236, L33.

Haisch, B.M., Linsky, J.L., and Basri, G.S. 1980, Outer atmospheres of cool stars. IV. A discussion of cool stellar wind models, *Ap. J.*, 235, 519.

Haisch, B.M., Linsky, J.L., Bornmann, P.L., Stencel, R.E., Antiochos, S.K., Golub, L., and Vaiana, G.S. 1983, Coordinated Einstein and IUE observations of a disparitions brusques type flare event and quiescent emission from Proxima Centauri, *Ap. J.*, 267, 280.

Haisch, B.M., Linsky, J.L., Slee, O.B., Siegman, B.C., Nikoloff, I., Candy, H., Harwood, D., Verveer, A., Quinn, P.J., Wilson, I., Page, A.A., Higson, P., and Seward, F.D. 1981, Simultaneous X-ray, ultraviolet, optical, and radio observations of the flare star Proxima Centauri, *Ap. J.*, 245, 1009.

- Haisch, B.M., Schmitt, J.H.M.M., Rodono, M., and Gibson, D.M. 1990, Rotational modulation and flares on RS Canum Venaticorum and BY Draconis-type stars. XIV. Phase, eclipse and flare observations of YY Geminorum by Exosat and IUE, *A. & A.*, 230, 419.
- Hallam, K.L., and Wolff, C.L. 1981, Rotation of dwarf star chromospheres in the ultraviolet, *Ap. J.*, 248, L73.
- Halliwell, D.R., Bates, B., and Catney, M.G. 1988, Discrete absorption components: a study of the gas parcel model using component velocity observations, *A. & A.*, 189, 204.
- Hamann, W.-R., Gruschinske, J., Kudritzki, R.P., and Simon, K.P. 1981, Mass loss from O subdwarfs, *A. & A.*, 104, 249.
- Hamann, W.-R., Kudritzki, R.-P., Mendez, R.H., and Pottasch, S.R. 1984, Mass loss from the central star of NGC 3242, *A. & A.*, 139, 459.
- Hamann, W.-R., Schmutz, W., and Wessolowski, U. 1988, Spectral analysis of the Wolf-Rayet star HD 50896, *A. & A.*, 194, 190.
- Hamann, W.-R., Schonberner, D., and Heber, U. 1982, Mass loss from extreme helium stars, *A. & A.*, 116, 273.
- Hamilton, A.J.S., and Fesen, R.A. 1988, The reionization of unshocked ejecta in SN 1006, *Ap. J.*, 327, 178.
- Hammerschlag-Hensberge, G., Howarth, I.D., and Kallman, T.R. 1990, Orbital variability in the wind of the massive X-ray binary HD 153919/4U 1700-37, *Ap. J.*, 352, 698.
- Hammerschlag-Hensberge, G., Kallman, T.R., and Howarth, I.D. 1984, Ultraviolet high-resolution spectroscopy of the X-ray binary Sk 160/SMC X-1, *Ap. J.*, 283, 249.
- Hammerschlag-Hensberge, G., McClintock, J.E., and van Paradijs, J. 1982, IUE observations of the X-ray burst source 4U/MXB 1735-44, *Ap. J.*, 254, L1.
- Hammerschlag-Hensberge, G., van den Heuvel, E.P.J., Lamers, H.J.G.L.M., Burger, M., de Loore, C., Glencross, W., Howarth, I., Willis, A.J., Wilson, R., Menzies, J., Whitelock, P.A., van Dessel, E.L., and Sanford, P. 1980, IUE observations of the Be stars HD 102567 (4U1145-61), X Per and Gamma Cas, *A. & A.*, 85, 119.

Hamuy, M., and Suntzeff, N.B. 1990, SN 1987A in the LMC. III. UBVRI photometry at Cerro Tololo, A.J., 99, 1146.

Hanson, C.G., and Coe, M.J. 1985, The ultraviolet variability of the BL Lacertae object OJ287, M.N.R.A.S., 217, 831.

Harmer, D.L., Stickland, D.J., Lloyd, C., Harmer, C.F.W., Pike, C.D., and Croft, D. 1983, A study of the binary system 58 Persei, M.N.R.A.S., 204, 927.

Harper, G.M. 1990, Fe I - Mg II k line fluorescence in K giant and bright giant stars, M.N.R.A.S., 243, 381.

Harrington, J.P., and Feibelman, W.A. 1983, The planetary nebula IC 3568: a model based on IUE observations, Ap. J., 265, 258.

Harrington, J.P., and Feibelman, W.A. 1984, The remarkable ultraviolet spectrum of the planetary nebula Abell 30, Ap. J., 277, 716.

Harrington, J.P., Lutz, J.H., and Seaton, M.J. 1981, Ultraviolet spectra of planetary nebulae - IV. The C III 2297 dielectronic recombination line and dust absorption in the C IV 1549 resonance doublet, M.N.R.A.S., 195, 21P.

Harrington, J.P., Lutz, J.H., Seaton, M.J., and Stickland, D.J. 1980, Ultraviolet spectra of planetary nebulae - I. The abundance of carbon in IC 418, M.N.R.A.S., 191, 13.

Harrington, J.P., Monk, D.J., and Clegg, R.E.S. 1988, Thermal infrared emission by dust in the planetary nebula NGC 3918: a model analysis of IRAS observations, M.N.R.A.S., 231, 577.

Harrington, J.P., Seaton, M.J., Adams, S., and Lutz, J.H. 1982, Ultraviolet spectra of planetary nebulae - VI. NGC 7662, M.N.R.A.S., 199, 517.

Harris, A.W., and Bromage, G.E. 1984, The abundance of interstellar chlorine in the galaxy, M.N.R.A.S., 208, 941.

Harris, A.W., Bromage, G.E., and Blades, J.C. 1983, Zinc as a tracer of metallicity in the interstellar medium, M.N.R.A.S., 203, 1225.

Harris, A.W., Gry, C., and Bromage, G.E. 1984, The correlation of interstellar element depletions with mean gas density, Ap. J., 284, 157.

Harris, A.W., and Mas Hesse, J.M. 1986, A survey of interstellar sulfur abundance and implications for P II oscillator strengths, Ap. J., 308, 240.

Harris, A.W., and Mas Hesse, J.M. 1986, Interstellar zinc revisited: possible depletion in high-density sight-lines, M.N.R.A.S., 220, 271.

Hartmann, L., Baliunas, S.L., Duncan, D.K., and Noyes, R.W. 1984, A study of the dependence of Mg II emission on the rotational periods of main-sequence stars, Ap. J., 279, 778.

Hartmann, L., Davis, R., Dupree, A.K., Raymond, J., Schmidtke, P.C., and Wing, R.F. 1979, Chromospheres of the active dwarf binaries EQ Pegasi and Xi Bootes, Ap. J., 233, L69.

Hartmann, L., Dupree, A.K., and Raymond, J.C. 1980, Hybrid atmospheres and winds in supergiant stars, Ap. J., 236, L143.

Hartmann, L., Dupree, A.K., and Raymond, J.C. 1981, On the relationship between coronae and mass loss in late-type stars, Ap. J., 246, 193.

Hartmann, L., Dupree, A.K., and Raymond, J.C. 1982, Ultraviolet observations of stellar chromospheric activity, Ap. J., 252, 214.

Hartmann, L., Jordan, C., Brown, A., and Dupree, A.K. 1985, On the outer atmospheres of hybrid stars, Ap. J., 296, 576.

Hartmann, L.W., Huchra, J.P., Geller, M.J., O'Brien, P., and Wilson, R. 1988, Lyman-alpha emission in star-forming galaxies, Ap. J., 326, 101.

Hartquist, T.W., and Snijders, M.A.J. 1982, Hot galactic gas and narrow line quasar absorption systems, Nature, 299, 783.

Hartquist, T.W., Snijders, M.A.J., and West, K.A. 1983, Doubly ionized aluminium - a diagnostic of cooling gas in the galactic corona, M.N.R.A.S., 203, 1183.

Hartquist, T.W., and Tallant, A. 1981, Analysis of IUE observations of the galactic corona and the existence of molecular clouds in the halo, M.N.R.A.S., 196, 527.

Harvey, A.S., Stickland, D.J., Howarth, I.D., and Zuiderwijk, E.J. 1987, Spectroscopic binary orbits from ultraviolet radial velocities. Paper 3: Delta Orionis, The Observatory, 107, 205.

Hasinger, G., van der Klis, M., Ebisawa, K., Dotani, T., and Mitsuda, K. 1990, Multifrequency observations of Cygnus X-2: X-ray observations with Ginga, A. & A., 235, 131.

Hassall, B.J.M. 1985, The superoutburst of the dwarf nova EK Trianguli Australis, M.N.R.A.S., 216, 335.

Hassall, B.J.M., Pringle, J.E., Schwarzenberg-Czerny, A., Wade R.A., Whelan, J.A.J., and Hill, P.W. 1983, Ultraviolet and optical observations of the dwarf novae VW and WX Hydri during outburst, M.N.R.A.S., 203, 865.

Hassall, B.J.M., Pringle, J.E., and Verbunt, F. 1985, Dwarf novae in outburst: monitoring WX Hydri with IUE, M.N.R.A.S., 216, 353.

Hassall, B.J.M., Pringle, J.E., Ward, M.J., Whelan, J.A.J., Mayo, S.K., Echevarria, J., Jones, D.H.P., Wallis, R.E., Allen, D.A., and Hyland, A.R. 1981, Observations and models of H2252-035, M.N.R.A.S., 197, 275.

Haug, K., and Drechsel, H. 1985, Spectroscopy and spectrophotometry of the nova-like system V3885 Sagittarii, A. & A., 151, 157.

Hayes, M.A., and Nussbaumer, H. 1983, The OIV infrared and ultraviolet flux ratios as temperature and density diagnostics, A. & A., 124, 279.

Hayes, M.A., and Nussbaumer, H. 1986, The symbiotic star RR Tel, A. & A., 161, 287.

Heap, S.R. 1987, Ultraviolet detection of the nucleus of NGC 2440, Nature, 326, 571.

Heap, S.R., and Augensen, H.J. 1987, Mass distribution and evolutionary scheme for central stars of planetary nebulae, Ap. J., 313, 268.

- Heap, S.R., Boggess, A., Holm, A., Klinglesmith, D.A., Sparks, W., West, D., Wu, C.-C., Boksenberg, A., Willis, A., Wilson, R., Macchett, F., Selvelli, P.L., Stickland, D., Greenstein, J.L., Hutchings, J.B., Underhill, A.B., Viotti, R., and Whelan, J.A.J. 1978, IUE observations of hot stars: HZ 43, BD+75 325, NGC 6826, SS Cygni, Eta Carinae, *Nature*, 275, 385.
- Heber, U. 1983, Spectral fine analysis of the extreme helium star BD+10 2179, *A. & A.*, 118, 39.
- Heber, U. 1986, The atmosphere of subluminous B stars. II. Analysis of 10 helium poor subdwarfs and the birthrate of sdB stars, *A. & A.*, 155, 33.
- Heber, U., Hamann, W.R., Hunger, K., Kudritzki, R.P., Simon, K.P., and Mendez, R.H. 1984, Non-LTE analysis of subluminous O-stars. VI. Feige 110, *A. & A.*, 136, 331.
- Heber, U., and Hunger, K. 1981, UV observations of the intermediate helium star CPD-46 3093, *A. & A.*, 101, 269.
- Heber, U., Hunger, K., Jonas, G., and Kudritzki, R.P. 1984, The atmosphere of subluminous B stars, *A. & A.*, 130, 119.
- Heber, U., and Kudritzki, R.P. 1986, NLTE-analysis of the sdO star ROB 162 in the globular cluster NGC 6397, *A. & A.*, 169, 244.
- Heber, U., Kudritzki, R.P., Caloi, V., Castellani, V., Danziger, J., and Gilmozzi, R. 1986, A spectroscopic study of HB stars in the galactic globular cluster NGC 6752, *A. & A.*, 162, 171.
- Heber, U., Werner, K., and Drilling, J.S. 1988, High-resolution spectroscopy of central stars of planetary nebulae: LSS 1362, *A. & A.*, 194, 223.
- Hecht, J., Helfer, H.L., Wolf, J., Donn, B., and Pipher, J.L. 1982, The peculiar extinction of Herschel 36, *Ap. J.*, 263, L39.
- Hecht, J.H., Holm, A.V., Donn, B., and Wu, C.-C. 1984, The dust around R Coronae Borealis type stars, *Ap. J.*, 280, 228.

- Heck, A., Burki, G., Bianchi, L., Cassatella, A., and Clavel, J. 1980, Simultaneous spectroscopic (UV MG II and Al II lines) and photo-metric variations of Zeta 1 Sco (HD 152236), M.N.R.A.S., 192, 59P.
- Heck, A., Egret, D., Jaschek, M., and Jaschek, C. 1984, IUE low-dispersion spectra flux catalogue. Part I. Normal stars (magnetic tape), A. & A. Suppl., 57, 213.
- Heckathorn, J.N., and Fesen, R.A. 1985, Ultraviolet observations of the central star in the planetary nebula 136+5.1, A. & A., 143, 475.
- Heise, J., and Verbunt, F. 1988, Ultraviolet observations of AM Her, A. & A., 189, 112.
- Hellings, P., de Loore, C., Burger, M., and Lamers, H.J.G.L.M. 1981, The evolutionary status of Upsilon Sagittarii (=HD 181615) as derived from ultraviolet and visual observations, A. & A., 101, 161.
- Hempe, K. 1982, A study of ultraviolet spectra of Zeta Aur/VV Cep systems, A. & A., 115, 133.
- Hempe, K. 1983, A study of ultraviolet spectra of Zeta Aur/VV Cep systems. III. Atlas of theoretical curves of growth, A. & A. Suppl., 53, 339.
- Hempe, K. 1984, A study of ultraviolet spectra of Xi Aur/VV Cep systems. V. Atlas of theoretical P Cygni profiles, A. & A. Suppl., 56, 115.
- Hempe, K., and Reimers, D. 1982, On excitation through radiative pumping of the Fe II UV- Mult. 191 lambda 1785-88 A observed with IUE during the eclipse of 32 Cyg, A. & A., 107, 36.
- Henrichs, H.F., Hammerschlag-Hensberge, G., Howarth, I.D., and Barr, P. 1983, Episodic mass loss and narrow lines in Gamma Cassiopeiae and in other early-type stars, Ap. J., 268, 807.
- Henry, R.B.C., Shipman, H.L., and Wesemael, F. 1985, Spectrum synthesis study of selected ultraviolet metal lines in hot DA white dwarf stars, Ap. J. Suppl., 57, 145.
- Herbig, G.H., and Goodrich, R.W. 1986, Near-simultaneous ultraviolet and optical spectrophotometry of T Tauri stars, Ap. J., 309, 294.

- Hill, R.S., and Smith, A.M. 1989, IUE spectra of HD 269665 (Sk -68 110), a hot subdwarf in the direction of the Large Magellanic Cloud, *A.J.*, 97, 881.
- Holberg, J.B., Kidder, K.M., and Wesemael, F. 1990, Detection of trace helium in G104-27, a 26,000 K DA white dwarf, *Ap. J.*, 365, L77.
- Holberg, J.B., Wesemael, F., and Basile, J. 1986, DA white dwarf effective temperatures determined from IUE Lyman-alpha profiles, *Ap. J.*, 306, 629.
- Holberg, J.B., Wesemael, F., Wegner, G., and Bruhweiler, F.C. 1985, An analysis of the bright white dwarf CD -38 10980, *Ap. J.*, 293, 294.
- Holm, A., Bohlin, R.C., Cassatella, A., Ponz, D.P., and Schiffer III, F.H. 1982, On the linearity of the SWP camera of the International Ultraviolet Explorer (IUE): a correction algorithm, *A. & A.*, 112, 341.
- Holm, A.V., and Boggess, A. 1982, IUE spectra of Feige 4, a suspected source of extreme-ultraviolet radiation, *P.A.S.P.*, 94, 553.
- Holm, A.V., and Doherty, L.R. 1988, Ultraviolet spectroscopy of R Coronae Borealis, *Ap. J.*, 328, 726.
- Holm, A.V., Hecht, J., Wu, C.-C., and Donn, B. 1987, The fading of R Coronae Borealis, *P.A.S.P.*, 99, 497.
- Holm, A.V., Panek, R.J., and Schiffer III, F.H. 1982, Ultraviolet spectrum variability of UX Ursae Majoris, *Ap. J.*, 252, L35.
- Holm, A.V., Panek, R.J., Schiffer, F.H., Bond, H.E., Kemper, E., and Grauer, A.D. 1985, Two-phase ultraviolet spectrophotometry of the pulsating white dwarf ZZ Piscium, *Ap. J.*, 289, 774.
- Horanyi, M., Cravens, T.E., and Waite, Jr., J.H. 1988, The precipitation of energetic heavy ions into the upper atmosphere of Jupiter, *Jour. Geophys. Res.*, 93, 7251.
- Howarth, I.D. 1983, LMC and galactic extinction, *M.N.R.A.S.*, 203, 301.
- Howarth, I.D. 1983, Ultraviolet spectroscopy of LSI + 61 303, *M.N.R.A.S.*, 203, 801.

- Howarth, I.D. 1984, Blueshifted narrow absorption components in the ultraviolet spectrum of the binary V861 Sco (HD 152667), M.N.R.A.S., 206, 625.
- Howarth, I.D. 1984, An analysis of V861 Sco - II. The stellar wind, M.N.R.A.S., 211, 167.
- Howarth, I.D. 1987, A subdwarf's startling stellar wind, M.N.R.A.S., 225, 33P.
- Howarth, I.D. 1987, The spectroscopic orbit of HD 128220, M.N.R.A.S., 226, 249.
- Howarth, I.D., and Phillips, A.P. 1986, The ultraviolet spectrum and interstellar environment of HD 50896, M.N.R.A.S., 222, 809.
- Howarth, I.D., and Prinja, R.K. 1989, The stellar winds of 203 galactic O stars: a quantitative ultraviolet survey, Ap. J. Suppl., 69, 527.
- Howarth, I.D., Prinja, R.K., Roche, P.F., and Willis, A.J. 1984, IUE observations of the X-ray binary A0538-66: spectroscopic study of a strange stellar system, M.N.R.A.S., 207, 287.
- Howarth, I.D., Prinja, R.K., and Willis, A.J. 1984, Observations of narrow absorption components in the ultraviolet spectrum of Zeta Ophiuchi, M.N.R.A.S., 208, 525.
- Howarth, I.D., and Wilson, R. 1983, A study of the low-mass X-ray binary HZ Her/Her X-1 using IUE and optical data, M.N.R.A.S., 202, 347.
- Howarth, I.D., and Wilson, R. 1983, HZ Her: the nature and origin of the emission lines, M.N.R.A.S., 204, 1091.
- Howarth, I.D., Wilson, R., Carter, B.S., Menzies, J.W., Roberts, G., Whitelock, P.A., van Dessel, E.L., de Loore, C., Burger, M., and Sandford, M.C.W. 1981, IUE and optical observations of V861 Scorpii, A. & A., 93, 219.
- Huber, M.C.E., Nussbaumer, H., Smith, L.J., Willis, A.J., and Wilson, R. 1979, IUE observations of absorption by hot gas in the nebula NGC 6888, Nature, 278, 697.

- Hubert-Delplace, A.M., Mon, M., Ungerer, V., Hirata, R., Paterson-Beeckmans, F., Hubert, H., and Baade, D. 1983, Envelope structure of the cyclic V/R variable shell stars, *A. & A.*, 121, 174.
- Hubert, A.M., Floquet, M., and Chambon, M.T. 1987, Additional constraints on cool-disk models of Be stars based on long observational sequences in the visual range, *A. & A.*, 186, 213.
- Hubert, A.M., Floquet, M., Chauville, J., and Chambon, M.T. 1987, Spectral features of the B2e star EW Lac before and during the variable shell phase, *A. & A. Suppl.*, 70, 443.
- Huchra, J.P., Geller, M.J., Gallagher, J., Hunter, D., Hartmann, L., Fabbiano, G., and Aaronson, M. 1983, Star formation in blue galaxies. I. Ultraviolet, optical and infrared observations of NGC 4214 and NGC 4670, *Ap. J.*, 274, 125.
- Huenemoerder, D.P. 1988, Optical and ultraviolet activity in RT Lacertae during 1985 and 1986, *P.A.S.P.*, 100, 600.
- Huenemoerder, D.P., and Barden, S.C. 1986, Optical and UV spectroscopy of the peculiar RS CVn system RT Lacertae, *A.J.*, 91, 583.
- Huenemoerder, D.P., de Boer, K.S., and Code, A.D. 1984, Field horizontal-branch stars at ultraviolet and visual wavelengths, *A.J.*, 89, 851.
- Huenemoerder, D.P., Ramsey, L.W., and Buzasi, D.L. 1990, Coordinated optical and ultraviolet observations of IM Pegasi, *Ap. J.*, 350, 763.
- Humphreys, R.M., Blaha, C., D'Odorico, S., Gull, T.R., and Benvenuti, P. 1984, IUE and ground-based observations of the Hubble-Sandage variables in M31 and M33, *Ap. J.*, 278, 124.
- Humphreys, R.M., Leitherer, C., Stahl, O., Wolf, B., and Zickgraf, F.-J. 1988, Variable C: an S Doradus-type variable in M 33, *A. & A.*, 203, 306.
- Hunger, K., Heber, U., and Groote, D. 1989, The distance of the helium-variable B star HD 37479, *A. & A.*, 224, 57.

Hunger, K., Heber, U., and Koester, D. 1985, PHL 227: the discovery of a new nova-like object, A. & A., 149, L4.

Hunstead, R.W., Pettini, M., and Fletcher, A.B. 1990, Metal enrichment, dust, and star formation in galaxies at high redshifts. II. Lyman-alpha emission from the $z=2.465$ absorber toward Q0836+113, Ap. J., 356, 23.

Hunt, G.E. 1981, Atmospheres of Jupiter and Saturn, Roy. Soc. Phil. Trans., A303, 225.

Huseyin Mentese, H. 1988, Column densities of interstellar matter in the direction of the star Kappa Cas (B1 Ia), Astrophys. Sp. Sci., 146, 27.

Husfeld, D., Butler, K., Heber, U., and Drilling, J.S. 1989, Non-LTE analysis of extremely helium-rich stars. I. The hot sdO stars LSE 153, 259 and 263, A. & A., 222, 150.

Hutchings, J.B. 1979, Ultraviolet spectroscopy of the extreme B supergiants P Cygni and Zeta 1 Scorpii, Ap. J., 233, 913.

Hutchings, J.B. 1979, The ultraviolet spectrum of LSI +61 303, P.A.S.P., 91, 657.

Hutchings, J.B. 1979, The stellar wind and the UV spectrum of (Nova) HR Delphini, P.A.S.P., 91, 661.

Hutchings, J.B. 1980, IUE ultraviolet spectroscopy of stars in the Magellanic Clouds, Ap. J., 237, 285.

Hutchings, J.B. 1980, Simultaneous X-ray, UV, and optical observations of the recent nova HR Delphini, P.A.S.P., 92, 458.

Hutchings, J.B. 1982, International Ultraviolet Explorer spectroscopy of hot stars in the LMC and SMC: the SMC extinction law, stellar flux distributions, and details of the stellar winds, Ap. J., 255, 70.

Hutchings, J.B., and Cowley, A.P. 1985, Time-resolved UV spectroscopy of BE Ursae Majoris, P.A.S.P., 97, 328.

Hutchings, J.B., Cowley, A.P., Ake, T.B., and Imhoff, C.L. 1983, The 1982 ultraviolet eclipse of the symbiotic binary AR Pav, Ap. J., 275, 271.

Hutchings, J. B., and Cowley, J. 1982, The UV spectrum of the symbiotic binary AR Pavonis during egress, P. A. S. P., 94, 107.

Hutchings, J. B., and Crampton, D. 1981, Spectroscopy of the unique degenerate binary star LSI + 61 303, P. A. S. P., 93, 486.

Hutchings, J. B., Crampton, D., Cowley, A. P., Bianchi, L., and Thompson, I. B. 1987, Optical and UV spectroscopy of the black hole binary candidate LMC X-1, A. J., 94, 340.

Hutchings, J. B., and Dupree, A. K. 1980, The ultraviolet spectrum and flux of HD 152667 (=X-ray source 1653-40?), Ap. J., 240, 161.

Hutchings, J. B., and Massey, P. 1983, IUE studies of the Wolf-Rayet binaries HD 186943 and HD 211853 during eclipse, P. A. S. P., 95, 151.

Hutchings, J. B., Massey, P., and Bianchi, L. 1987, Are there stellar winds in the hot stars of M31?, Ap. J., 322, L79.

Hutchings, J. B., and Neff, S. G. 1987, Morphology and nuclear spectroscopy of Markarian 231, A. J., 93, 14.

Hutchings, J. B., and Thompson, I. B. 1988, Massive star-formation regions in the Magellanic Clouds, Ap. J., 331, 294.

Hutchings, J. B., and van Heteren, J. 1981, IUE spectroscopy of hot binary stars HD 108, HD 149404, and HD 163181, P. A. S. P., 93, 626.

Hutchings, J. B., and von Rudloff, I. R. 1980, UV spectroscopy with IUE of OB stars with stellar winds, Ap. J., 238, 909.

Hutsemekers, D. 1985, The ultraviolet spectrum of the Be star HD 50138, A. & A. Suppl., 60, 373.

Hutsemekers, D., and Surdej, J. 1989, Revisited mass-loss rates for a sample of central stars of planetary nebulae, A. & A., 219, 237.

- Hutter, D.J., and Mufson, S.L. 1986, Application of a relativistic jet model to the study of BL Lacertae objects, Ap. J., 301, 50.
- Imhoff, C.L., and Giampapa, M.S. 1980, The ultraviolet spectrum of the T Tauri star RW Aurigae, Ap. J., 239, L115.
- Ito, M., and Ikeuchi, S. 1988, Ionization structure of the gaseous halo in our galaxy, Publ. Astron. Soc. Japan, 40, 403.
- Jackson, M.W., Rahe, J., Donn, B., Smith, A.M., Keller, H.U., Benvenuti, P., Delsemme, A.H., and Owen, T. 1979, The ultraviolet spectrum of Comet Seargent 1978m, A. & A., 73, L7.
- Jackson, W.M., Butterworth, P.S., and Ballard, D. 1986, The origin of CS in Comet IRAS-Araki-Alcock 1983d, Ap. J., 304, 515.
- Jackson, W.M., Halpern, J.B., Feldman, P.D., and Rahe, J. 1982, Production of CS and S in Comet Bradfield (1979 X), A. & A., 107, 385.
- Jacobs, J.M., and Dworetsky, M.M. 1982, Bismuth abundance anomaly in a Hg-Mn star, Nature, 299, 535.
- Jacoby, G.H., Ciardullo, R., and Ford, H.C. 1990, Planetary nebulae as standard candles. V. The distance to the Virgo cluster, Ap. J., 356, 332.
- Jameson, R.F., King, A.R., and Sherrington, M.R. 1982, Infrared, optical and ultraviolet observations of TT Ari, M.N.R.A.S., 200, 455.
- Jameson, R.F., King, A.R., and Sherrington, M.R. 1980, The UV spectrum of AE Aqr, M.N.R.A.S., 191, 559.
- Jameson, R.F., Sherrington, M.R., King, A.R., and Frank, J. 1982, UV observations of TT Arietis and the magnetic rotator hypothesis, Nature, 300, 152.
- Jaschek, M., Baschek, B., Jaschek, C., and Heck, A. 1985, Observation of 1600 Å and 3040 Å features in the spectra of field horizontal branch stars, A. & A., 152, 439.

Jaschek, M., and Jaschek, C. 1987, The ultraviolet gallium stars, A. & A., 171, 380.

Jenkins, E.B., Silk, J., Wallerstein, G., and Myckky Leep, E. 1981, A compressed cloud in the Vela supernova remnant, Ap. J., 248, 977.

Jenkins, E.B., Wallerstein, G., and Silk, J. 1984, High-resolution IUE observations of interstellar absorption lines in the Vela supernova remnant, Ap. J., 278, 649.

Johansson, S. 1983, Strong Fe II fluorescence lines in RR Tel and V1016 Cyg excited by CIV in a Bowen mechanism, M.N.R.A.S., 205, 71P.

Johansson, S. 1988, Indirect IUE observation of O VI from photoexcited fluorescence lines of Fe II present in the spectrum of RR Telescopii, Ap. J., 327, L85.

Johansson, S., and Jordan, C. 1984, Selective excitation of Fe II in the laboratory and late-type stellar atmospheres, M.N.R.A.S., 210, 239.

Johnson, H. 1980, IUE low-dispersion spectra of four luminous stars in symmetric nebulae, Ap. J., 235, 66.

Johnson, H.M. 1979, IUE spectra of the nuclei of M31 and M32, Ap. J., 230, L137.

Johnson, H.M. 1980, Observations of R Aquarii, Ap. J., 237, 840.

Johnson, H.M. 1981, IUE high-dispersion spectrum of R Aquarii, Ap. J., 244, 552.

Johnson, H.M. 1981, IUE observations of four planetary nebulae, Ap. J., 250, 590.

Johnson, H.M. 1981, IUE spectra of RS Puppis and HD 20722: stars in symmetric dusty nebulae, P.A.S.P., 93, 285.

Johnson, H.M. 1982, IUE observations of R Aquarii, Ap. J., 253, 224.

Johnson, H.M. 1982, IUE low-dispersion spectra of six luminous stars in symmetric nebulae, Ap. J., 256, 559.

Johnson, H. M. 1982, IUE high dispersion spectra of luminous stars in symmetric nebulae, Ap. J. Suppl., 50, 551.

Johnson, H. M. , and Mayor, M. 1986, The orbit and properties of the HD 149162 system, Ap. J., 310, 354.

Johnson, H. R. , Ameen, M. M. , and Eaton, J. A. 1984, Line identifications in the ultraviolet (2590-3230 Å) spectrum of the hydrogen-deficient carbon star HD 182040, Ap. J., 283, 760.

Johnson, H. R. , Baumert, J. H. , Querci, F. , and Querci, M. 1986, Variability of ultraviolet emission on the carbon star TX Piscium, Ap. J., 311, 960.

Johnson, H. R. , Eaton, J. A. , Querci, F. R. , Querci, M. , and Baumert, J. H. 1988, The unusual carbon star HD 59643: alternative models, A. & A., 204, 149.

Johnson, H. R. , and Luttermoser, D. G. 1987, Ultraviolet spectra and chromospheres of cool carbon stars, Ap. J., 314, 329.

Johnson, H. R. , Luttermoser, D. G. , and Faulkner, D. R. 1988, The violet and ultraviolet opacity problem for carbon stars, Ap. J., 332, 421.

Johnson, H. R. , and O'Brien, G. T. 1983, The ultraviolet spectra of three N-type carbon stars, Ap. J., 265, 952.

Johnstone, R. M. , and Fabian, A. C. 1988, Extended emission-line gas in NGC 1275 and the central galaxy in A1795: evidence for a distributed rather than a central source of ionization, M.N.R.A.S., 233, 581.

Joly, M. 1981, The Fe II spectrum of Seyfert 1 galaxies and quasars, A. & A., 102, 321.

Jordan, C. , Ayres, T. R. , Brown, A. , Linsky, J. L. , and Simon, T. 1987, The chromospheres and coronae of five G-K main-sequence stars, M.N.R.A.S., 225, 903.

Jordan, C. , Brown, A. , Walter, F. M. , and Linsky, J. L. 1986, The outer atmosphere of Procyon (Alpha CMi F5IV-V): evidence of supergranulation or active regions, M.N.R.A.S., 218, 465.

- Joseph, C.L. 1989, Systematic errors in spectral features introduced by random noise, P.A.S.P., 101, 623.
- Joseph, C.L., Snow, T.P., Seab, C.G., and Crutcher, R.M. 1986, Interstellar abundances in dense, moderately reddened lines of sight. I. Observational evidence for density-dependent depletion, Ap. J., 309, 771.
- Judge, P.G. 1986, Constraints on the outer atmospheric structure of the late-type giant stars with IUE: methods and applications to Arcturus (Alpha Boo K2III), M.N.R.A.S., 221, 119.
- Judge, P.G. 1986, Constraints on the outer atmospheric structure of late-type giant stars with IUE: application to Alpha Tau (K5III) and Beta Gru (M5III), M.N.R.A.S., 223, 239.
- Judge, P.G. 1988, The excitation of S I emission lines in chromospheres of late-type giant stars, M.N.R.A.S., 231, 419.
- Judge, P.G. 1990, On the interpretation of chromospheric emission lines, Ap. J., 348, 279.
- Judge, P.G., Jordan, C., and Rowan-Robinson, M. 1987, Delta Andromedae (K3 III): an IRAS source with an unusual ultraviolet spectrum, M.N.R.A.S., 224, 93.
- Kafatos, M., Michalitsianos, A.G., Allen, D.A., and Stencel, R.E. 1983, Observations of two peculiar emission objects in the Large Magellanic Cloud, Ap. J., 275, 584.
- Kafatos, M., Michalitsianos, A.G., and Fahey, R.P. 1985, High-dispersion ultraviolet spectra of the peculiar star RX Puppis, Ap. J. Suppl., 59, 785.
- Kafatos, M., Michalitsianos, A.G., and Feibelman, W.A. 1982, IUE observations of the peculiar star RX Puppis, Ap. J., 257, 204.
- Kafatos, M., Michalitsianos, A.G., and Hobbs, R.W. 1980, IUE observations of two late type stars: R Aql and W Hya, A. & A., 92, 320.
- Kafatos, M., Michalitsianos, A.G., and Hobbs, R.W. 1980, IUE observations of RW Hydrael (gM2+pec), Ap. J., 240, 114.

Kafatos, M., Michalitsianos, A.G., and Hollis, J.M. 1986, Ultraviolet variability and mass expulsion from R Aquarii, Ap. J. Suppl., 62, 853.

Kahn, S.M., Wesemael, F., Liebert, J., Raymond, J.C., Steiner, J.E., and Shipman, H.L. 1984, Photospheric soft X-ray emission from hot DA white dwarfs, Ap. J., 278, 255.

Kaler, J.B. 1986, CIII electron temperatures in planetary nebulae, Ap. J., 308, 337.

Kaler, J.B., and Feibelman, W.A. 1984, The central star of the planetary nebula Abell 78, Ap. J., 282, 719.

Kaler, J.B., and Feibelman, W.A. 1985, Ultraviolet spectra of the central stars of large planetary nebulae, Ap. J., 297, 724.

Kaler, J.B., and Feibelman, W.A. 1985, The nature of Weinberger-12, P.A.S.P., 97, 660.

Kaler, J.B., Feibelman, W.A., and Henrichs, H.F. 1988, The complex wind of the central star of the planetary nebula Abell 78, Ap. J., 324, 528.

Kaler, J.B., and Hickey, J.P. 1983, Ultraviolet activity in EG Andromedae, P.A.S.P., 95, 759.

Kaler, J.B., Shaw, R.A., Feibelman, W.A., and Lutz, J.H. 1989, A case study of a WC planetary nebula nucleus: Henize 2-99, Ap. J. Suppl., 70, 213.

Kallman, T.R., McCray, R., and Voit, G.M. 1987, Rapid variability of P Cygni lines in massive X-ray binaries, Ap. J., 317, 746.

Kameswara Rao, N., Giridhar, S., and Nandy, K. 1990, The UV spectrum of the WC 11 star CPD-56 8032, A. & A., 234, 410.

Kamp, L.W. 1982, IUE observations of Si and C lines and comparison with non-LTE models, Ap. J. Suppl., 48, 415.

Kaper, L., Hammerschlag-Hensberge, G., and Takens, R.J. 1990, Raman scattering as a diagnostic tool in the massive X-ray binary 4U1700-37, Nature, 347, 652.

- Kastner, S.O., Bhatia, A.K., and Feibelman, W.A. 1989, Anomalously high intercombination line ratios in symbiotic stars; extreme Bowen pumping?, M.N.R.A.S., 237, 487.
- Keel, W.C. 1987, The stellar population in the Wolf-Rayet knot in NGC 5430, A. & A., 172, 43.
- Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., and Lennon, D.J. 1987, Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340, A. & A., 178, 194.
- Keenan, F.P., and Dufton, P.L. 1984, The masses of early-type stars in the galactic halo determined from ultraviolet resonance line profiles, A. & A., 139, 227.
- Kemp, J.C., Henson, G.D., Kraus, D.J., Beardsley, I.S., Carroll, L.C., Ake, T.B., Simon, T., and Collins, G.W. 1986, Epsilon Aurigae: polarization, light curves, and geometry of the 1982-1984 eclipse, Ap. J., 300, L11.
- Kenyon, S.J., and Fernandez-Castro, T. 1987, Spectroscopic observations of the symbiotic binary RW Hydriæ, Ap. J., 316, 427.
- Kenyon, S.J., Hartmann, L., Imhoff, C.L., and Cassatella, A. 1989, Ultraviolet spectroscopy of pre-main-sequence accretion disks, Ap. J., 344, 925.
- Kenyon, S.J., Michalitsianos, A.G., Lutz, J.H., and Kafatos, M. 1985, The 1984 eclipse of the symbiotic binary SY Muscae, P.A.S.P., 97, 268.
- Kenyon, S.J., and Webbink, R.F. 1984, The nature of symbiotic stars, Ap. J., 279, 252.
- Keyes, C.D., Aller, L.H., and Feibelman, W.A. 1990, The spectrum of NGC 7027, P.A.S.P., 102, 59.
- Kim, S.J., A'Hearn, M.F., and Larson, S.M. 1990, Multi-cycle fluorescence: application to S2 in Comet IRAS-Araki-Alcock 1983VII, Icarus, 87, 440.
- Kindl, C., Marxer, N., and Nussbaumer, H. 1982, Interpretation of line profiles of the symbiotic star V1016 Cyg, A. & A., 116, 265.

King, A.R. , Frank, J. , Jameson, R.F. , and Sherrington, M.R. 1983, Phase-dependent UV spectra of UX Ursae Majoris, M.N.R.A.S. , 203, 677.

Kinney, A.L. , Huggins, P.J. , Bregman, J.N. , and Glassgold, A.E. 1985, The ultraviolet spectra of intermediate-redshift quasars, Ap. J. , 291, 128.

Kinney, A.L. , Huggins, P.J. , Glassgold, A.E. , and Bregman, J.N. 1987, The ultraviolet spectra of intermediate-redshift quasars. II. , Ap. J. , 314, 145.

Kinney, A.L. , Rivolo, A.R. , and Koratkar, A.P. 1990, A study of the Baldwin effect in the IUE data set, Ap. J. , 357, 338.

Kirshner, R.P. , Sonneborn, G. , Crenshaw, D.M. , and Nassiopoulos, G.E. 1987, Ultraviolet observations of SN 1987A, Ap. J. , 320, 602.

Kitchin, C.R. 1982, Ultraviolet spectroscopy of Phi Persei, M.N.R.A.S. , 198, 457.

Kiziloglu, U. , Derman, E. , Ogelman, H. , and Tokdemir, F. 1983, Ultraviolet observations of AR Lacertae, A. & A. , 123, 17.

Kjaergaard, P. 1987, The interpretation of the UV light of elliptical galaxies, A. & A. , 176, 210.

Kjaergaard, P. , Norgaard-Nielsen, H.U. , Cacciari, C. , and Wamsteker, W. 1984, A comparison between various UV photometric systems for late-type stars, A. & A. , 133, 363.

Klare, G. , Krautter, J. , Wolf, B. , Stahl, O. , Vogt, N. , Wargau, W. , and Rahe, J. 1982, IUE observations of dwarf novae during active phases, A. & A. , 113, 76.

Koch, R.H. , Bradstreet, D.H. , Hrivnak, B.J. , Pfeiffer, R.J. , and Perry, P.M. 1986, HD 47755, a new eclipsing binary, A.J. , 91, 590.

Koch, R.H. , Bradstreet, D.H. , Perry, P.M. , and Pfeiffer, R.J. 1981, IUE spectra of the hot close binary V Puppis, P.A.S.P. , 93, 621.

Koch, R.H., Corcoran, M.F., Holenstein, B.D., and McClusky, G.E. 1986, IUE observations of V Sagittae, Ap. J., 306, 618.

Koch, R.H., Hrivnak, B.J., Bradstreet, D.H., Blitzstein, W., Pfeiffer, R.J., and Perry, P.M. 1985, IUE spectroscopy, visible-band photometry, and polarimetry of HD 47732 (V641 Monocerotis), Ap. J., 288, 731.

Koch, R.H., Siah, M.J., and Fanelli, M.N. 1979, IUE spectra of the massive close binary V382 Cygni, P.A.S.P., 91, 474.

Kodaira, K., Watanabe, T., Onaka, T., and Tanaka, W. 1990, Vacuum ultraviolet imagery of the Virgo cluster region. II. Total far-ultraviolet flux of galaxies, Ap. J., 363, 422.

Koenigsberger, G. 1988, Spectral variations in WNE Wolf-Rayet binaries: the Fe V + Fe VI pseudo-continuum, Rev. Mex. Astron. Astrof., 16, 75.

Koenigsberger, G. 1990, The Fe V/Fe VI ionization structure in WNE Wolf-Rayet winds, A. & A., 235, 282.

Koenigsberger, G. 1990, The IUE spectrum of the Wolf-Rayet system HD 193077, Rev. Mex. Astron. Astrof., 20, 85.

Koenigsberger, G., and Auer, L.H. 1985, IUE observations of phase-dependent variations in WN+O systems, Ap. J., 297, 255.

Koenigsberger, G., and Auer, L.H. 1987, Rapid emission-line variations in the UV spectrum of the Wolf-Rayet system HD 90657, P.A.S.P., 99, 1080.

Koenigsberger, G., Moffat, A.F.J., and Auer, L.H. 1987, Atmospheric eclipses in the SMC Wolf-Rayet eclipsing binary HD 5980: the heavy versus the light metal abundance, Ap. J., 322, L41.

Koester, D., Vauclair, G., Weidemann, V., and Zeidler-K.T., E.M. 1982, Discovery of CaII absorption at 1840 Å in IUE spectra of two helium-rich white dwarfs, A. & A., 113, L13.

Koester, D., Wegner, G., and Kilkenny, D. 1990, Model atmosphere analysis of the DZ white dwarf K789-37, Ap. J., 350, 329.

Koester, D., and Weidemann, V. 1989, Detection of Lyman-alpha in the spectrum of a white dwarf with helium atmosphere, A. & A., 219, 276.

Koester, D., Weidemann, V., and Vauclair, G. 1983, The temperature of the pulsating DB white dwarf GD 358, A. & A., 123, L11.

Koester, D., Weidemann, V., and Zeidler-K.T., E.M. 1982, Atmospheric parameters and carbon abundance of white dwarfs of spectral types C2 and DC, A. & A., 116, 147.

Koester, D., Weidemann, V., Zeidler-K.T., E.M., and Vauclair, G. 1985, The explanation of the 1400 and 1600 Å features in DA white dwarfs, A. & A., 142, L5.

Kollatschny, W., and Fricke, K.J. 1983, Hydrogen line ratios of low redshift QSO's, A. & A., 122, 33.

Kollatschny, W., and Fricke, K.J. 1983, ESO 438-G 9: a Seyfert galaxy with unusual properties, A. & A., 125, 276.

Kollatschny, W., and Fricke, K.J. 1984, The double Seyfert nucleus of Mkn 226, A. & A., 135, 171.

Kollatschny, W., Fricke, K.J., Schleicher, H., and Yorke, H.W. 1981, Variability of the continuum and the emission lines in the Seyfert 1 galaxy Akn 120, A. & A., 102, L23.

Kollatschny, W., Schleicher, H., Fricke, K.J., and Yorke, H.W. 1981, The line spectrum of the FeII Seyfert I galaxy Akn 120, A. & A., 104, 198.

Kondo, Y., and Bruhweiler, F.C. 1985, IUE observations of Beta Pictoris: an IRAS candidate for a proto-planetary system, Ap. J., 291, L1.

Kondo, Y., Feibelman, W.A., and West, D.K. 1982, Hot wind from Gamma 2 Velorum observed in the ultraviolet carbon lines, Ap. J., 252, 208.

Kondo, Y., McCluskey, G.E., and Feibelman, W.F. 1980, IUE observations of the ultraviolet spectrum of the close binary Delta Pictoris, P.A.S.P., 92, 688.

- Kondo, Y., McCluskey, G.E., and Harvel, C.A. 1981, IUE ultraviolet spectra of the interacting binary U cephei, Ap. J., 247, 202.
- Kondo, Y., McCluskey, G.E., and Parsons, S.B. 1985, Variable, optically thick plasma in the interacting binaries R Arae and HD 207739, Ap. J., 295, 580.
- Kondo, Y., McCluskey, G.E., and Stencel, R.E. 1979, IUE observations of gas stream effects in the ultraviolet spectrum of U Cephei, Ap. J., 233, 906.
- Kondo, Y., McClusky, G.E., and Wu, C.-C. 1982, The early type component in Nu 1 Sagittarii, P.A.S.P., 94, 647.
- Kondo, Y., Worrall, D.M., Mushotzky, R.F., Hackney, R.L., Hackney, K.R.H., Oke, J.B., Yee, H.K.C., Neugebauer, G., Matthews, K., Feldman, P.A., and Brown, R.L. 1981, Quasi-simultaneous observations of BL Lac object MRK 501 in X-ray, UV, visible, IR, and radio frequencies, Ap. J., 243, 690.
- Koornneef, J. 1982, The gas to dust ratio and the near-infrared extinction law in the Large Magellanic Cloud, A. & A., 107, 247.
- Koornneef, J., and Code, A.D. 1981, Ultraviolet interstellar extinction in the Large Magellanic Cloud using observations with the International Ultraviolet Explorer, Ap. J., 247, 860.
- Koornneef, J., and Mathis, J.S. 1981, Ultraviolet slit spectroscopy in the core of 30 Doradus with the International Ultraviolet Explorer, Ap. J., 245, 49.
- Koppen, J. 1983, Models of the planetary nebulae II 2003, NGC 3242, 6210, and 7009: constraints on the ionizing radiation of the central star, A. & A., 122, 95.
- Koppen, J., and Wehrse, R. 1980, High dispersion EUV observations of planetary nebulae, A. & A., 85, L15.
- Koppen, J., and Wehrse, R. 1983, The strength of the CIV 1550A resonance lines in planetary nebulae, A. & A., 123, 67.
- Koratkar, A.P., and Gaskell, C.M. 1989, Emission-line variability of Fairall 9: determination of the size of the broad-line region and the direction of gas motion, Ap. J., 345, 637.

Kraemer, S.B., and Harrington, J.P. 1986, Dust in the emission-line gas of the Seyfert 2 galaxy Markarian 3, Ap. J., 307, 478.

Krautter, J., Beuermann, K., Leitherer, C., Oliva, E., Moorwood, A.F.M., Deul, E., Wargau, W., Klare, G., Kohoutek, L., van Paradijs, J., and Wolf, B. 1984, Observations of Nova Muscae 1983 from 1200 Å-10 microns during its early decline stage, A. & A., 137, 307.

Krautter, J., Klare, G., Wolf, B., Duerbeck, H.W., Rahe, J., Vogt, N., and Wargau, W. 1981, IUE spectroscopy of cataclysmic variables, A. & A., 102, 337.

Krautter, J., Klare, G., Wolf, B., Wargau, W., Drechsel, H., Rahe, J., and Vogt, N. 1981, TT Ari: a new dwarf nova, A. & A., 98, 27.

Krautter, J., and Williams, R.E. 1989, The nebular phase of Nova GQ Muscae 1983: evolution of the ionization of the optical spectrum, Ap. J., 341, 968.

Krishna Swamy, K.S., and Shah, G.A. 1988, Nature of dust grains in comets, M.N.R.A.S., 233, 573.

Krishna Swamy, K.S., and Tarafdar, S.P. 1987, Possible H₂ emission in Comet Bradfield, Observatory, 107, 29.

Krishna Swamy, K.S., and Wallis, M.K. 1987, Sulphur compounds in cometary IUE spectra, M.N.R.A.S., 228, 305.

Kudritzki, R.P., Simon, K.P., Lynas-Gray, A.E., Kilkenny, D., and Hill, P.W. 1982, LB 3459 - An O-type subdwarf eclipsing binary system Non-LTE analysis of the primary, A. & A., 106, 254.

Kuin, N.P.M., and Ahmad, I.A. 1989, A semiempirical model for the red supergiant's wind in Zeta Aurigae systems, Ap. J., 344, 856.

Kunasz, P.B., Morrison, N.D., and Spressart, B. 1983, Mass Loss in HR 1040 (A0 Ia): analysis of Mg II lambda 2802 and H alpha, Ap. J., 266, 739.

la Dous, C., Verbunt, F., Schoembs, R., Argyle, R.W., Jones, D.H.P., Schwarzenberg-Czerny, A., Hassall, B.J.M., Pringle, J.E., and Wade, R.A. 1985, Dwarf novae in outburst: simultaneous ultraviolet and optical observations of RU Pegasi and TZ Persei, M.N.R.A.S., 212, 231.

- Lacy, J.H., Soifer, B.T., Neugebauer, G., Matthews, K., Malkan, M., Becklin, E.E., Wu, C.-C., Boggess, A., and Gull, T.R. 1982, Infrared, optical and ultraviolet observations of hydrogen line emission from Seyfert Galaxies, *Ap. J.*, 256, 75.
- Lagrange-Henri, A.M., Beust, H., Ferlet, R., and Vidal-Madjar, A. 1989, The circumstellar gas around Beta Pictoris. VIII. Evidence for a clumpy structure of the infalling gas, *A. & A.*, 215, L5.
- Lagrange-Henri, A.M., Vidal-Madjar, A., and Ferlet, R. 1988, The Beta Pictoris circumstellar disk. VI. Evidence for material falling on to the star, *A. & A.*, 190, 275.
- Lagrange, A.M., Ferlet, R., and Vidal-Madjar, A. 1987, The Beta Pictoris circumstellar disk. IV. Redshifted UV lines, *A. & A.*, 173, 289.
- Lamb, S.A., Gallagher, J.S., Hjellming, M.S., and Hunter, D.A. 1985, IUE observations of amorphous hot galaxies, *Ap. J.*, 291, 63.
- Lambert, D.L., and Slovak, M.H. 1981, The ultraviolet spectrum of the twin-degenerate interacting binary G 61-29, *P.A.S.P.*, 93, 477.
- Lamers, H.J.G.L.M., de Groot, M., and Cassatella, A. 1983, P Cygni stars as an intermediate stage between red supergiants and Wolf-Rayet stars, *A. & A.*, 123, L8.
- Lamers, H.J.G.L.M., de Groot, M., and Cassatella, A. 1983, The distance, temperature, and luminosity of the hypergiant P Cygni (B1 Ia+), *A. & A.*, 128, 299.
- Lamers, H.J.G.L.M., Korevaar, P., and Cassatella, A. 1985, The ejection of shells in the stellar wind of the hypergiant P Cygni (B 1 Ia+), *A. & A.*, 149, 29.
- Lamers, H.J.G.L.M., Snow, T.P., de Jager, C., and Langerwerf, A. 1988, Fast variations in the ultraviolet resonance lines of Alpha Camelopardalis (09.5 Ia): evidence for blobs in the wind, *Ap. J.*, 325, 342.
- Lamontagne, R., Wesemael, F., and Fontaine, G. 1987, Studies of hot B subdwarfs. V. Continuing investigation of the C, N, and Si abundance patterns in the atmospheres of sdB stars, *Ap. J.*, 318, 844.

Lamontagne, R., Wesemael, F., Fontaine, G., and Sion, E.M. 1985, Studies of hot B subdwarfs. III. Carbon, nitrogen, and silicon abundances in three sdB stars, Ap. J., 299, 496.

Landau, R., Golisch, W., Jones, T.J., Jones, T.W., Pedelty, J., Rudnick, L., Sitko, M.L., Kenney, J., Roellig, T., Salonen, E., Urpo, S., Schmidt, G., Neugebauer, G., Matthews, K., Elias, J.H., Impey, C., Clegg, P., and Harris, S. 1986, Active extragalactic sources: nearly simultaneous observations from 20 centimeters to 1400 A, Ap. J., 308, 78.

Landini, M., Monsignori Fossi, B.C., Paresce, F., and Stern, R.A. 1985, Extreme-ultraviolet emission from cool star outer atmospheres, Ap. J., 289, 709.

Landsman, W.B., Henry, R.C., Moos, H.W., and Linsky, J.L. 1984, Observations of interstellar hydrogen and deuterium toward Alpha Centauri A, Ap. J., 285, 801.

Landsman, W.B., Murthy, J., Henry, R.C., Moos, H.W., Linsky, J.L., and Russell, J.L. 1986, IUE observations of interstellar hydrogen and deuterium toward Alpha Centauri B, Ap. J., 303, 791.

Landtsheer, A.C., and Mulder, P.S. 1983, IUE observations of the eclipsing binaries TV Cas and YZ Cas, A. & A., 127, 297.

Lane, A.L., Hamrick, E., Boggess, A., Evans, D.C., Gull, T.R., Schiffer III, F.H., Turnrose, B., Perry, P., Holm, A., Macchietto, F., Gondhalekar, P.M., Hunt, G.E., Wilson, R., Owen, T.C., Moos, H.W., Tomasko, M.G., Gehrels, T., Conway, R., and Barth, C.A. 1978, IUE observations of solar system objects, Nature, 275, 414.

Lane, A.L., Nelson, R.M., and Matson, D.L. 1981, Evidence for sulphur implantation in Europa's UV absorption band, Nature, 292, 38.

Lane, M.C., and Lester, J.B. 1984, Effective temperatures and surface gravities of metallic-line A stars, Ap. J., 281, 723.

Lang, K.R., and Willson, R.F. 1988, Ultraviolet and radio flares from UX Arietis and HR 1099, Ap. J., 328, 610.

Lanz, T. 1984, Bolometric corrections for peculiar B-type stars, A. & A., 139, 161.

- Laor, A. 1990, Massive thin accretion discs - III. Comparison with the observations, M.N.R.A.S., 246, 369.
- Larson, H.P., Hu, H.-Y., Mumma, M.J., and Weaver, H.A. 1990, Outbursts of H₂O in Comet P/Halley, Icarus, 86, 129.
- Laurent, C., Paul, J.A., and Pettini, M. 1982, The violent interstellar medium associated with the Carina Nebula. I. The line of sight toward HD 93205, Ap. J., 260, 163.
- Leckrone, D.S. 1981, The resonance line of B II in IUE spectra of chemically peculiar stars, Ap. J., 250, 687.
- Leckrone, D.S. 1984, The resonance lines of Hg II in IUE spectra of chemically peculiar stars, Ap. J., 286, 725.
- Leckrone, D.S., and Adelman, S.J. 1989, On the signal-to-noise ratio in IUE high-dispersion spectra, Ap. J. Suppl., 71, 387.
- Ledoux, P., Noels, A., and Boury, A. 1982, Vibrational instability of a 3000 solar mass star and the R136a problem, A. & A., 108, 49.
- Lee, M.G., Bohm, K.H., Temple, S.D., Raga, A.C., Mateo, M.L., Brugel, E.W., and Mundt, R. 1988, The spatial distribution of ultraviolet line and continuum emission in Herbig-Haro objects, A.J., 96, 1690.
- Leech, K.J., Penston, M.V., Snijders, M.A.J., and Gull, T.R. 1987, The MgII line profile in the Seyfert galaxy NGC 4151: a new outflowing component, M.N.R.A.S., 225, 837.
- Leitherer, C., Appenzeller, I., Klare, G., Lamers, H.J.G.L.M., Stahl, O., Waters, L.B.F.M., and Wolf, B. 1985, The massive wind of S Dor, A. & A., 153, 168.
- Leitherer, C., Forbes, D., Gilmore, A.C., Hearnshaw, J., Klare, G., Krautter, J., Mandel, H., Stahl, O., Strupat, W., Wolf, B., Zickgraf, F.-J., and Zirbel, E. 1987, Photometry and spectroscopy of the O-type variable HD 167971, A. & A., 185, 121.
- Lemke, M. 1990, Abundance anomalies in main sequence A stars. II. C, Si, Ca and the heavy elements Sr and Ba, A. & A., 240, 331.

Lenzuni, P., Natta, A., and Panagia, N. 1989, Properties and evolution of dust grains in planetary nebulae, Ap. J., 345, 306.

Lequeux, J., Maucherat-Joubert, M., Deharveng, J.M., and Kunth, D. 1981, Star formation and extinction in extragalactic H II regions, A. & A., 103, 305.

Lequeux, J., Maurice, E., Prevot-Burnichon, M.L., Prevot, L., and Rocca-Volmerange, B. 1982, SK143: an SMC star with a galactic-type ultraviolet interstellar extinction, A. & A., 113, L15.

Liebert, J., Green, R., Bond, H.E., Holberg, J.B., Wesemael, F., Fleming, T.A., and Kidder, K. 1989, A compact planetary nebula around the hot white dwarf EGB 6/PG 0950+139, Ap. J., 346, 251.

Liebert, J., Schmidt, G.D., Green, R.F., Stockman, H.S., and McGraw, J.T. 1983, Two hot, low-field magnetic DA white dwarfs, Ap. J., 264, 262.

Liebert, J., Schmidt, G.D., Sion, E.M., Starrfield, S.G., Green, R.F., and Boroson, T.A. 1985, Two new color-selected magnetic DA white dwarfs, P.A.S.P., 97, 158.

Liebert, J., Wesemael, F., Hansen, C.J., Fontaine, G., Shipman, H.L., Sion, E.M., Winget, D.E., and Green, R.F. 1986, Temperatures for hot and pulsating DB white dwarfs obtained with the IUE observatory, Ap. J., 309, 241.

Liebert, J., Wesemael, F., Husfeld, D., Wehrse, R., Starrfield, S.G., and Sion, E.M. 1989, The high-resolution spectrum of the pulsating, pre-white dwarf star PG 1159-035 (GW Vir), A.J., 97, 1440.

Liebert, J., Wesemael, F., Sion, E.M., and Wegner, G. 1984, GD 323: a white dwarf with a stratified H/He atmosphere?, Ap. J., 277, 692.

Linnell, A.P., Peters, G.J., and Polidan, R.S. 1988, An improved photometric analysis of SX Aurigae, Ap. J., 327, 265.

Linsky, J.L., Ayres, T.R., Basri, G.S., Morrison, N.D., Boggess, A., Schiffer III, F.H., Holm, A., Cassatella, A., Heck, A., Macchietto, F., Stickland, D., Wilson, R., Blanco, C., Dupree, A.K., Jordan, C., and Wing, R.F. 1978, IUE observations of cool stars: Alpha Aurigae, HR 1099, Lambda Andromedae, and Epsilon Eridani, Nature, 275, 389.

Linsky, J.L., Bornmann, P.L., Carpenter, K.G., Wing, R.F., Giampapa, M.S., Worden, S.P., and Hege, E.K. 1982, Outer atmospheres of cool stars. XII. A survey of IUE ultraviolet emission line spectra of cool dwarf stars, Ap. J., 260, 670.

Linsky, J.L., and Haisch, B.M. 1979, Outer atmospheres of cool stars. I. The sharp division into solar-type and non-solar type stars, Ap. J., 229, L27.

Linsky, J.L., Neff, J.E., Brown, A., Gross, B.D., Simon, T., Andrews, A.D., Rodono, M., and Feldman, P.A. 1989, Rotational modulation and flares on RS Canum Venaticorum and BY Draconis stars. X. The 1981 October 3 flare on V711 Tauri (=HR 1099), A. & A., 211, 173.

Little-Marenin, I.R., and Little, S.J. 1987, A search for technetium (Tc II) in barium stars, A.J., 93, 1539.

Little-Marenin, I.R., Simon, T., Ayres, T.R., Cohen, N.L., Cohen, N.L., Feldman, P.A., Linsky, J.L., Little, S.J., and Lyons, R. 1986, Ultraviolet, optical, infrared, and microwave observations of HR 5110, Ap. J., 303, 780.

Littleton, J.E., and Davis, S.P. 1988, Transition strength data for the orange and red bands of CaCl, Ap. J., 333, 1026.

Livengood, T.A., and Moos, H.W. 1990, Jupiter's north and south polar aurorae with IUE data, Geophys. Res. Lett., 17, 2265.

Livengood, T.A., Strobel, D.F., and Moos, H.W. 1990, Long-term study of longitudinal dependence in primary particle precipitation in the north Jovian aurora, Jour. Geophys. Res., 95, 10,375.

Llorente de Andres, F., Burki, G., and Ruiz del Arbol, J.A. 1982, Mass loss rates in the open cluster IC 1805, A. & A., 107, 43.

Lloyd Evans, T., Balona, L.A., and Fekel, F.C. 1987, Studies of calcium emission stars. I. HD 158393 - a giant star in a binary system, M.N.R.A.S., 226, 813.

Lockman, F.J., Hobbs, L.M., and Shull, J.M. 1986, The extent of the local H I halo, Ap. J., 301, 380.

- Longo, G., Capaccioli, M., Bender, R., and Busarello, G. 1989, A correlation between shape and (UV-V) color for early-type galaxies, *A. & A.*, 225, L17.
- Longo, R., Stalio, R., Polidan, R.S., and Rossi, L. 1989, Intrinsic ultraviolet (912-3200 Å) energy distribution of OB stars, *Ap. J.*, 339, 474.
- Lucy, L.B. 1987, Computed ultraviolet spectra for SN 1987a, *A. & A.*, 182, L31.
- Lundqvist, P., and Fransson, C. 1988, Circumstellar absorption of UV and radio emission from supernovae, *A. & A.*, 192, 221.
- Luo, D., Pradhan, A.K., and Shull, J.M. 1988, Oscillator strengths for Si II, *Ap. J.*, 335, 498.
- Luttermoser, D.G., Johnson, H.R., Avrett, E.H., and Loeser, R. 1989, Chromospheric structure of cool carbon stars, *Ap. J.*, 345, 543.
- Lutz, J.H. 1981, The abundance of carbon in HU 2-1, *Ap. J.*, 247, 144.
- Lutz, J.H. 1984, Ultraviolet and optical spectroscopy of Cn 1-1 (=HDE 330036), *Ap. J.*, 279, 714.
- Lutz, J.H., Kaler, J.B., Shaw, R.A., Schwarz, H.E., and Aspin, C. 1989, He 2-104: a link between symbiotic stars and planetary nebulae?, *P.A.S.P.*, 101, 966.
- Lutz, J.H., Lutz, T.E., Dull, J.D., and Kolb, D.D. 1987, Ultraviolet and optical observations of AG Draconis, *A.J.*, 94, 463.
- Lutz, J.H., and Seaton, M.J. 1979, The NeIV D-S lines in the planetary nebula NGC 7662, *M.N.R.A.S.*, 187, 1P.
- Lynas-Gray, A.E., Kilkenny, D., Skillen, I., and Jeffery, C.S. 1987, Non-radial pulsations in the extreme helium star HD 160641, *M.N.R.A.S.*, 227, 1073.
- Lynas-Gray, A.E., Schonberner, D., Hill, P.W., and Heber, U. 1984, The pulsating extreme helium star BD +13 3224. II. Ultraviolet fluxes and effective temperature variations, *M.N.R.A.S.*, 209, 387.

MacAlpine, G.M. 1988, Ultraviolet spectra of the narrow-lined Seyfert galaxies Markarian 573 and Markarian 1388, P.A.S.P., 100, 65.

MacAlpine, G.M., Davidson, K., Gull, T.R., and Wu, C.-C. 1985, He II 1640 Å/4686 Å and Lyman alpha/H beta ratios in the extraordinary Seyfert galaxy Markarian 359, Ap. J., 294, 147.

Maccagni, D., Maraschi, L., Tanzi, E.G., Tarenghi, M., and Chiappetti, L. 1983, X-ray and UV observations of the BL Lacertae object 3C 66A, Ap. J., 273, 75.

MacLaren, I., Ellis, R.S., and Couch, W.J. 1988, Spectral energy distributions of galaxies in high-redshift clusters - III. Abell 370 at $z=0.37$, M.N.R.A.S., 230, 249.

Makino, F., Tanaka, Y., Matsuoka, M., Koyama, K., Inoue, H., Makishima, K., Hoshi, R., Hayakawa, S., Knodo, Y., Urry, C.M., Mufson, S.L., Hackney, K.R., Hackney, R.L., Kikuchi, S., Mikami, Y., Wisniewski, W.Z., Hiromoto, N., Nishida, M., Burnell, J., Brand, P., Williams, P.M., Smith, M.G., Takahara, F., Inoue, M., Tsuboi, M., Tabara, H., Kato, T., Aller, M.F., and Aller, H.D. 1987, Simultaneous multifrequency observations of the BL Lacertae object Markarian 421, Ap. J., 313, 662.

Malagnini, M.L., Morossi, C., Rossi, L., and Kurucz, R.L. 1985, Effective temperature and bolometric correction for HD 61421, HD 87901, HD 159561, and HD 216956, A. & A., 152, 117.

Malignini, M.L., Morossi, C., Rossi, L., and Kurucz, R.L. 1986, The emperical BC versus T_{eff} scale for non-supergiant O9-G5 stars, A. & A., 162, 140.

Malkan, M.A. 1983, The ultraviolet excess of luminous quasars. II. Evidence for massive accretion disks, Ap. J., 268, 582.

Malkan, M.A., Green, R.F., and Hutchings, J.B. 1987, PG 1411+442: the nearest broad absorption line quasar, Ap. J., 322, 729.

Malkan, M.A., and Moore, R.L. 1986, The ultraviolet excess of quasars. III. The highly polarized quasars PKS 0736+017 and PKS 1510-089, Ap. J., 300, 216.

Malkan, M.A., and Oke, J.B. 1983, IUE observations of Markarian 3 and 6: reddening and the nonstellar continuum, Ap. J., 265, 92.

Malkan, M.A., and Sargent, W.L.W. 1982, The ultraviolet excess of Seyfert 1 galaxies and quasars, Ap. J., 254, 22.

Mallik, S.V. 1990, Role of nonthermal velocity fields in determining the H-alpha widths in supergiant chromospheres, P.A.S.P., 102, 1148.

Maloney, F.P., Guinan, E.F., and Boyd, P.T. 1989, Eclipsing binary stars as tests of gravity theories: the apsidal motion of AS Camelopardalis, A.J., 98, 1800.

Maran, S.P., Aller, L.H., Gull, T.R., and Stecher, T.P. 1982, Ultraviolet spectroscopy of planetary nebulae in the Magellanic Clouds, Ap. J., 253, L43.

Maran, S.P., Gull, T.R., Stecher, T.P., Aller, L.H., and Keyes, C.D. 1984, Ultraviolet spectroscopy of the planetary nebula in the Fornax galaxy, Ap. J., 280, 615.

Maraschi, L., Blades, J.C., Calanchi, C., Tanzi, E.G., and Treves, A. 1988, Detection of extragalactic absorption in the ultraviolet spectrum of the BL Lacertae object PKS 2155-304, Ap. J., 333, 660.

Maraschi, L., Schwartz, D.A., Tanzi, E.G., and Treves, A. 1985, Multifrequency observations of the BL Lacertae object PKS 0537-441, Ap. J., 294, 615.

Maraschi, L., Tagliaferri, G., Tanzi, E.G., and Treves, A. 1986, Variability of the BL Lacertae objects PKS 2155-304 and OJ 287 in the far-ultraviolet, Ap. J., 304, 637.

Maraschi, L., Tanzi, E.G., Tarenghi, M., and Treves, A. 1980, Far UV observations of PKS2155-304, Nature, 285, 555.

Maraschi, L., Tanzi, E.G., Tarenghi, M., and Treves, A. 1983, Quasi-simultaneous ultraviolet and optical observations of PKS 2155-304 = H 2155-304, A. & A., 125, 117.

Maraschi, L., Tanzi, E.G., and Treves, A. 1980, Far-ultraviolet observations of Cygnus X-2, Ap. J., 241, L23.

Maraschi, L., Tanzi, E.G., and Treves, A. 1981, Far-ultraviolet observations of the variable radio star LSI+61 303, Ap. J., 248, 1010.

Maraschi, L., Tanzi, E.G., Treves, A., and Falomo, R. 1983, Quasi-simultaneous optical and UV observations of OJ 287 during an active period in 1983, *A. & A.*, 127, L17.

Maraschi, L., Treves, A., Tanzi, E.G., Mouchet, M., Lauberts, A., Motch, C., Bonnet Bidaud, J.M., and Phillips, M.M. 1984, Coordinated UV and optical observations of the AM Herculis object E1405-451 in the high and low states, *Ap. J.*, 285, 214.

Margon, B., Anderson, S.F., Mateo, M., Fich, M., and Massey, P. 1988, An exceptionally bright, compact starburst nucleus, *Ap. J.*, 334, 597.

Marilli, E., Catalano, S., and Trigilio, C. 1986, Chromospheric emission luminosity versus rotation in late main sequence stars, *A. & A.*, 167, 297.

Mariska, J.T., Doschek, G.A., and Feldman, U. 1980, The detection of a companion star to the cepheid variable Eta Aquilae, *Ap. J.*, 238, L87.

Mariska, J.T., Doschek, G.A., and Feldman, U. 1980, The detection of a companion star to the Cepheid variable T Monocerotis, *Ap. J.*, 242, 1083.

Markova, N. 1990, The velocity law and acceleration of the hydrogen and OSiN discrete components observed in P Cyg's stellar wind in 1982, *M.N.R.A.S.*, 244, 105.

Marlborough, J.M., and Peters, G.J. 1986, Ultraviolet observations of Be stars. II. Superionization in Be stars of different spectral types., *Ap. J. Suppl.*, 62, 875.

Maron, N. 1989, Properties of circumstellar grains in R Coronae Borealis, *Astrophys. Sp. Sci.*, 161, 201.

Marsi, C., and Selvelli, P.L. 1987, The FeII emission in the UV spectrum of CH Cyg, *A. & A. Suppl.*, 71, 153.

Martin, C., Basri, G., Lampton, M., and Kahn, S.M. 1982, The soft X-ray spectrum of Sirius B: evidence for the photospheric hypothesis, *Ap. J.*, 261, L81.

Mas-Hesse, J.M., Arnault, P., and Kunth, D. 1989, Population synthesis in starburst galaxies: Mkn 710, *Astrophys. Sp. Sci.*, 157, 131.

Masegosa, J., Moles, M., and Penston, M.V. 1986, IUE observations of the highly luminous Seyfert galaxy ESO 113-IG 45 (Fairall 9), M.N.R.A.S., 218, 541.

Mason, K.O., and Cordova, F.A. 1982, Ultraviolet spectrophotometry of 2A1822-371: a bulge on the accretion disk, Ap. J., 255, 603.

Mason, K.O., Cordova, F.A., Watson, M.G., and King, A.R. 1988, The discovery of orbital dips in the soft X-ray emission of U Gem during an outburst, M.N.R.A.S., 232, 779.

Massa, D. 1989, The UV silicon spectra of early B stars, A. & A., 224, 131.

Massa, D., and Conti, P.S. 1981, IUE observations of eight OB stars in NGC 2244: ultraviolet continua and extinction, Ap. J., 248, 201.

Massa, D., and Fitzpatrick, E.L. 1986, Ultraviolet extinction toward five open clusters, and the accuracy of IUE extinction measurements, Ap. J. Suppl., 60, 305.

Massa, D., and Savage, B.D. 1984, Ultraviolet observations of interstellar extinction near the Cepheus OB3 molecular cloud, Ap. J., 279, 310.

Massa, D., and Savage, B.D. 1985, The intrinsic ultraviolet continua of O stars, Ap. J., 299, 905.

Massa, D., Savage, B.D., and Cassinelli, J.P. 1984, Main-sequence B stars with strong winds in the core of NGC 6231, Ap. J., 287, 814.

Massa, D., Savage, B.D., and Fitzpatrick, E.L. 1983, Peculiar ultraviolet interstellar extinction, Ap. J., 266, 662.

Massey, P., and Hutchings, J.B. 1983, IUE observations of the exciting stars of giant HII regions in M33: supermassive stars?, Ap. J., 275, 578.

Massey, P., Hutchings, J.B., and Bianchi, L. 1985, UV and optical spectroscopy of OB stars in M31 and M33, A.J., 90, 2239.

- Mateo, M., and Szkody, P. 1984, VW Hyi: the white dwarf revealed, *A.J.*, 89, 863.
- Mateo, M., Szkody, P., and Hutchings, J. 1985, Ultraviolet, optical, and infrared observations of the intermediate polar TV Columbae, *Ap. J.*, 288, 292.
- Mathioudakis, M., and Doyle, J.G. 1989, Flux-flux relation: Mg II h and k versus X-rays in dwarf M and K stars, *A. & A.*, 224, 179.
- Mathioudakis, M., and Doyle, J.G. 1990, IUE observations of G1 644AB (=Wolf 630) in the wavelength region 1150-1950 Å, in June 1981, *A. & A.*, 232, 114.
- Mathis, J.S., Perinotto, M., Patriarchi, P., and Schiffer III, F.H. 1981, The ultraviolet properties of dust in the Orion Nebula, *Ap. J.*, 249, 99.
- Mauche, C.W., and Raymond, J.C. 1987, IUE observations of the dwarf nova HL Canis Majoris and the winds of cataclysmic variables, *Ap. J.*, 323, 690.
- Mauche, C.W., Raymond, J.C., and Cordova, F.A. 1988, Interstellar absorption lines in high-resolution IUE spectra of cataclysmic variables, *Ap. J.*, 335, 829.
- Maurice, E., Bouchet, P., and Martin, N. 1989, BVR photoelectric photometry of late-type stars and a compilation of other data in the Small Magellanic Cloud, *A. & A. Suppl.*, 78, 445.
- Mazeh, T., Netzer, H., Shaviv, G., Drechsel, H., Rahe, J., Wargau, W., Blades, J.C., Cacciari, C., and Wamsteker, W. 1985, UV and optical observations of Nova Sagittarii 1982, *A. & A.*, 149, 83.
- Mazzali, P.A. 1987, The ultraviolet spectrum of Beta Lyrae, *Ap. J. Suppl.*, 65, 695.
- McClintock, J.E., Petro, L.D., Hammerschlag-Hensberge, G., Proffitt, C.R., and Remillard, R.A. 1984, Cygnus X-2: neutron star or degenerate dwarf?, *Ap. J.*, 283, 794.
- McCluskey, G.E., and Kondo, Y. 1981, IUE observations of mass ejection by the close binary system AO Cassiopeiae, *Ap. J.*, 246, 464.

McCluskey, G.E., and Kondo, Y. 1983, International Ultraviolet Explorer observations of the peculiar variable spectrum of the eclipsing binary R Arae, Ap. J., 266, 755.

McCluskey, Jr., G.E., Kondo, Y., and Olson, E.C. 1988, IUE spectroscopy of U Cephei during the mass flow outburst of 1986 June, Ap. J., 332, 1019.

McConnell, J.C., Parkinson, C.D., Ben-Jaffel, L., Emerich, C., Prangee, R., and Vidal-Madjar, A. 1989, H Lyman-alpha emission at Neptune: Voyager prediction, A. & A., 225, L9.

McDowell, J.C., Elvis, M., Wilkes, B.J., Willner, S.P., Oey, M.S., Polomski, E., Bechtold, J., and Green, R.F. 1989, Weak bump quasars, Ap. J., 345, L13.

McEwen, A.S., Johnson, T.V., Matson, D.L., and Soderblom, L.A. 1988, The global distribution, abundance, and stability of SO₂ on Io, Icarus, 75, 450.

McFadden, L.A., A'Hearn, M.F., Feldman, P.D., Bohnhardt, H., Rahe, J., Festou, M.C., Brandt, J.C., Maran, S.P., Niedner, M.B., Smith, A.M., and Schleicher, D.G. 1987, Ultraviolet spectrophotometry of Comet Giacobini-Zinner during the ICE encounter, Icarus, 69, 329.

McFadden, L.A., A'Hearn, M.F., Feldman, P.D., Roettger, E.E., Edsall, D.M., and Butterworth, P.S. 1987, Activity of comet P/Halley 23-25 March, 1986: IUE observations, A. & A., 187, 333.

McGrath, M.A., Ballester, G.E., and Moos, H.W. 1990, Jovian H₂ dayglow emission (1978-1989), Jour. Geophys. Res., 95, 10,365.

McGrath, M.A., Feldman, P.D., Ballester, G.E., and Moos, H.W. 1989, IUE observations of the Jovian dayglow emission, Geophys. Res. Lett., 16, 583.

McLachlan, A., and Nandy, K. 1984, Interstellar CO in the direction of the runaway star AE Aurigae, M.N.R.A.S., 207, 355.

McLachlan, A., and Nandy, K. 1984, On the reality of the 2800 Å interstellar absorption feature attributed to proteins, Observatory, 104, 29.

- Meaburn, J. 1982, The visible and ultraviolet continuum from a Herbig-Haro object in the core of M16 (NGC 6611), *A. & A.*, 114, 367.
- Meaburn, J., and Walsh, J.R. 1984, The continuum from the Herbig-Haro object M16-HH 1 from 1200 Å to 2.2 microns, *A. & A.*, 138, 36.
- Meatheringham, S.J., Maran, S.P., Stecher, T.P., Michalitsianos, A.G., Gull, T.R., Aller, L.H., and Keyes, C.D. 1990, An extremely carbon-poor planetary nebula in the Small Magellanic Cloud, *Ap. J.*, 361, 101.
- Meier, D.L., and Terlevich, R. 1981, Extragalactic H II regions in the UV: implications for primeval galaxies, *Ap. J.*, 246, L109.
- Meurer, G.R., Cacciari, C., and Freeman, K.C. 1990, Ultraviolet colors as age indicators for LMC clusters, *A. J.*, 99, 1124.
- Meyer, D.M. 1990, Small-scale structure in the diffuse interstellar medium, *Ap. J.*, 364, L5.
- Meyer, F., and Meyer-Hofmeister, E. 1989, Constraints from the UV delay in dwarf nova outbursts, *A. & A.*, 221, 36.
- Michalitsianos, A.G., Hollis, J.M., and Kafatos, M. 1986, Jet activity in the symbiotic variable R Aquarii, *Canadian Journal of Physics*, 64, 523.
- Michalitsianos, A.G., and Kafatos, M. 1982, International Ultraviolet Explorer observations of the R Aquarii Jet, *Ap. J.*, 262, L47.
- Michalitsianos, A.G., and Kafatos, M. 1984, Variable ultraviolet emission in SY Muscae, *M.N.R.A.S.*, 207, 575.
- Michalitsianos, A.G., Kafatos, M., Fahey, R.P., Viotti, R., Cassatella, A., and Altamore, A. 1988, The C IV doublet ratio intensity effect in symbiotic stars, *Ap. J.*, 331, 477.
- Michalitsianos, A.G., Kafatos, M., Feibelman, W.A., and Hobbs, R.W. 1982, Ultraviolet observations of four symbiotic stars, *Ap. J.*, 253, 735.

Michalitsianos, A.G., Kafatos, M., Feibelman, W.A., and Wallerstein, G. 1982, A brightening of the symbiotic variable SY Muscae, *A. & A.*, 109, 136.

Michalitsianos, A.G., Kafatos, M., and Hobbs, R.W. 1980, IUE observations of circumstellar emission from the late type variable R Aquarii (M7 + pec), *Ap. J.*, 237, 506.

Michalitsianos, A.G., Kafatos, M., and Hobbs, R.W. 1980, IUE observations of a luminous M supergiant that exhibits emission continuum in the far ultraviolet, *Ap. J.*, 241, 774.

Michalitsianos, A.G., Kafatos, M., Hobbs, R.W., and Maran, S.P. 1980, IUE observations of the hot components in two symbiotic stars, *Nature*, 284, 148.

Michalitsianos, A.G., Kafatos, M., and Shore, S.N. 1989, Sanduleak's Star (LMC Anonymous): its similarity in the far-ultraviolet with the luminous object Eta Carinae and SN 1987A, *Ap. J.*, 341, 367.

Middlemass, D. 1988, Magnesium abundances in planetary nebulae and interstellar absorption of Mg II lambda 2800 A, *M.N.R.A.S.*, 231, 1025.

Middlemass, D. 1990, A model for the planetary nebula NGC 7027, *M.N.R.A.S.*, 244, 294.

Middlemass, D., Clegg, R.E.S., and Walsh, J.R. 1989, The giant haloes of NGC 6543 and 6826, *M.N.R.A.S.*, 239, 1.

Mikolajewska, J., Kenyon, S.J., and Mikolajewski, M. 1989, On the nature of the symbiotic star BF Cygni, *A.J.*, 98, 1427.

Mikolajewska, J., Selvelli, P.L., and Hack, M. 1988, IUE low resolution observations of the symbiotic star CH Cygni in 1979-1986, *A. & A.*, 198, 150.

Miralda-Escude, J., and Ostriker, J.P. 1990, What produces the ionizing background at large redshift?, *Ap. J.*, 350, 1.

Mitra, M., and Dufour, R.J. 1990, Spectrophotometry of the shell around AG Carinae, *M.N.R.A.S.*, 242, 98.

Mittaz, J.P.D., Penston, M.V., and Snijders, M.A.J. 1990, Ultraviolet variability of NGC 4151: a study using principal component analysis, M.N.R.A.S., 242, 370.

Moehler, S., Heber, U., and de Boer, K.S. 1990, Hot subluminous stars at high galactic latitudes. II. Physical parameters and distances of 37 sdB stars, A. & A., 239, 265.

Moffat, A.F.J., Koenigsberger, G., and Auer, L.H. 1989, IUE observations of Wolf-Rayet binary systems in the Small Magellanic Cloud, Ap. J., 344, 734.

Molaro, P., and Beckman, J. 1984, An upper limit to the abundance of Be 9 in the Population II star HD 76932 from a high resolution spectrum with IUE, A. & A., 139, 394.

Molaro, P., Morossi, C., and Ramella, M. 1983, Evidence for outburst in the shell star 17 Lep derived from ultraviolet spectra, A. & A., 119, 160.

Molaro, P., Morossi, C., Ramella, M., and Franco, M. 1983, Superionization in the A0 V star HD 119921, A. & A., 127, L3.

Molaro, P., and Vladilo, G. 1989, Some considerations on the non-detection of interstellar Li and B towards the SN 1987A, Astrophys. Sp. Sci., 156, 107.

Molaro, P., Vladilo, G., and Beckman, J.E. 1986, Distribution of Mg II in the local interstellar medium towards eight cool giants, A. & A., 161, 339.

Monier, R. 1990, Rapid line variations in the far-ultraviolet spectrum of 21 Com. I. The 1979 event, A.J., 100, 884.

Monier, R., and Halpern, J.P. 1987, The X-ray spectrum of NGC 1068, Ap. J., 315, L17.

Monier, R., and Megessier, C. 1990, LTE analysis of the far-ultraviolet variations of 21 Comae, A. & A., 237, 402.

Montesinos, B., Cassatella, A., Gonzalez-Riestra, R., Fernandez-Castro, T., Eiroa, C., and Jimenez-Fuensalida, J. 1990, Ultraviolet and infrared monitoring of FG Sagittae during 1982-1989: evolutionary status, Ap. J., 363, 245.

Moore, V., Hunt, G.E., Caldwell, J., Owen, T., Encrenaz, Th., and Combes, M. 1983, Observations of the UV spectrum of Saturn from 3200 Å to 1400 Å with IUE, Geophys. Res. Lett., 10, 1196.

Moos, H.W., and Clarke, J.T. 1979, Detection of acetylene in the Saturnian atmosphere using the IUE satellite, Ap. J., 229, L107.

Moos, H.W., and Clarke, J.T. 1981, Ultraviolet observations of the Io Torus from the IUE observatory, Ap. J., 247, 354.

Moos, H.W., Durrance, S.T., Skinner, T.E., Feldman, P.D., Bertaux, J.L., and Festou, M.C. 1983, IUE spectrum of the Io Torus: identification of the 5S2>3P2,1 transition of SIII, Ap. J., 275, L19.

Moos, H.W., Skinner, T.E., Durrance, S.T., Feldman, P.D., Festou, M.C., and Bertaux, J.L. 1985, Long-term stability of the Io high-temperature plasma torus, Ap. J., 294, 369.

Morgan, D.H., McLachlan, A., and Nandy, K. 1982, Interstellar extinction in the Perseus arm, M.N.R.A.S., 198, 779.

Morgan, S., and Bohm-Vitense, E. 1988, ISM chemical abundances in two intermediate-velocity clouds in the line of sight to SN 1987A, A.J., 96, 1373.

Morini, M., Scarsi, L., Molteni, D., Salvati, M., Perola, G.C., Piro, L., Simari, G., Boksenberg, A., Penston, M.V., Snijders, M.A.J., Bromage, G.E., Clavel, J., Elvius, A., and Ulrich, M.-H. 1986, Simultaneous EXOSAT and IUE observations of Fairall 9: short and long term variability, Ap. J., 307, 486.

Morvan, E., Vauclair, G., and Vauclair, S. 1986, Silicon abundances in Feige 24 and Wolf 1346: results of the diffusion theory, A. & A., 163, 145.

Mouchet, M., Bonnet-Bidaud, J.M., Illovaisky, S.A., and Chevalier, C. 1981, The ultraviolet spectrum of the X-ray source 2A0526-33, A. & A., 102, 31.

Mueller, B.E.A., and Nussbaumer, H. 1985, The ultraviolet spectrum of the symbiotic star HM Sge, A. & A., 145, 144.

Mueller, B.E.A., Nussbaumer, H., and Schmutz, W. 1986, The ultraviolet variability of the symbiotic star HBV 475. II. Study of line flux variations, *A. & A.*, 154, 313.

Mufson, S.L., Hutter, D.J., Hackney, K.R., Hackney, R.L., Urry, C.M., Mushotzky, R.F., Kondo, Y., Wisniewski, W.Z., Aller, H.D., Aller, M.F., and Hodge, P.E. 1984, Coordinated multifrequency observations of the BL Lacertae objects Markarian 180 and Markarian 501, *Ap. J.*, 285, 571.

Mufson, S.L., Hutter, D.J., Kondo, Y., Urry, C.M., and Wisniewski, W.Z. 1990, An evolving relativistic jet model for the BL Lacertae object Markarian 421, *Ap. J.*, 354, 116.

Mufson, S.L., McCollough, M.L., Dickel, J.R., Petre, R., White, R., and Chevalier, R. 1986, A multiwavelength investigation of the supernova remnant IC 443, *A.J.*, 92, 1349.

Mukai, K., Bonnet-Bidaud, J.-M., Charles, P.A., Corbet, R.H.D., Maraschi, L., Osborne, J.P., Smale, A.P., Treves, A., van der Klis, M., and van Paradijs, J. 1986, A multi-wavelength study of the long-period AM Her system E 2003+225 - II. Changes in the accretion geometry, *M.N.R.A.S.*, 221, 839.

Mullan, D.J. 1984, Corotating interaction regions in stellar winds, *Ap. J.*, 283, 303.

Mullan, D.J. 1984, Asymmetries in stellar Mg II h and k and Ca II H and K line profiles: discrepancies between Mg and Ca asymmetries, *Ap. J.*, 284, 769.

Mullan, D.J., Sion, E.M., Bruhweiler, F.C., and Carpenter, K.G. 1989, Evidence for a cool wind from the K2 dwarf in the detached binary V471 Tauri, *Ap. J.*, 339, L33.

Mullan, D.J., and Stencel, R.E. 1982, Magnesium emission variability among late-type giant stars, *Ap. J.*, 253, 716.

Munari, U. 1989, Studies of symbiotic stars. I. Location of the UV emitting regions in 6 S-type systems monitored by the IUE satellite, *A. & A.*, 208, 63.

Munari, U., Margoni, R., and Mammano, A. 1988, A probable non-degenerate H-burning flash on the white dwarf of the symbiotic slow nova V1329 Cygni, *A. & A.*, 202, 83.

Mundt, R., Appenzeller, I., Bertout, C., Chavarria, C., and Krautter, J. 1981, IUE observations of V1331 Cyg, A. & A., 93, 412.

Mundt, R., and Witt, A.N. 1983, On the contributions of the Orion reflection nebulosity to the continuous UV spectrum of the Herbig-Haro objects HH 1 and HH 2 and of the C-S star, Ap. J., 270, L59.

Murthy, J., Henry, R.C., Moos, H.W., Landsman, W.B., Linsky, J.L., Vidal-Madjar, A., and Gry, C. 1987, IUE observations of hydrogen and deuterium in the local interstellar medium, Ap. J., 315, 675.

Murthy, J., Henry, R.C., Moos, H.W., Vidal-Madjar, A., Linsky, J.L., and Gry, C. 1990, Studies of H I and D I in the local interstellar medium, Ap. J., 356, 223.

Murthy, J., Wofford, J.B., Henry, R.C., Moos, H.W., Vidal-Madjar, A., Linsky, J.L., and Gry, C. 1989, IUE observations of the interstellar medium toward Beta Geminorum, Ap. J., 336, 949.

Murty, P.S. 1982, CO in the IUE spectrum of Comet Bradfield (19791), Moon & Planets, 26, 101.

Nandy, K., McLachlan, A., Thompson, G.I., Morgan, D.H., Willis, A.J., Wilson, R., Gondhalekar, P.M., and Houziaux, L. 1982, Interstellar extinction in the Small Magellanic Cloud, M.N.R.A.S., 201, 1P.

Nandy, K., and Morgan, D.H. 1978, IUE observations of Large Magellanic Cloud members and detection of the 2200 Angstrom feature, Nature, 276, 478.

Nandy, K., and Morgan, D.H. 1980, IUE observations of Large Magellanic Cloud members, M.N.R.A.S., 192, 905.

Nandy, K., Morgan, D.H., Willis, A.J., and Gondhalekar, P.M. 1980, A Large Magellanic Cloud member intermediate between Of and WN7, M.N.R.A.S., 193, 43P.

Nandy, K., Morgan, D.H., Willis, A.J., Wilson, R., and Gondhalekar, P.M. 1981, Interstellar extinction in the Large Magellanic Cloud, M.N.R.A.S., 196, 955.

Nandy, K., Morgan, D.H., Willis, A.J., Wilson, R., Gondhalekar, P.M., and Houziaux, L. 1980, Interstellar extinction in the Large Magellanic Cloud, Nature, 283, 725.

Nandy, K., Thompson, G.I., Morgan, D.H., Willis, A.J., Wilson, R., and Houziaux, L. 1983, Visible and UV observations of the giant early-type members of the Large Magellanic Cloud, M.N.R.A.S., 205, 231.

Naylor, T. 1989, IUE archive observations of dwarf nova WZ Sge during outburst, M.N.R.A.S., 238, 587.

Naylor, T., Bath, G.T., Charles, P.A., Hassall, B.J.M., Sonneborn, G., van der Woerd, H., and van Paradijs, J. 1988, The 1985 May superoutburst of the dwarf nova OY Carinae - II. IUE and EXOSAT observations, M.N.R.A.S., 231, 237.

Naylor, T., Charles, P.A., Drew, J.E., and Hassall, B.J.M. 1988, Spectroscopy of the M15 X-ray source: discovery of binary motion and an unusual systemic velocity, M.N.R.A.S., 233, 285.

Neff, J.E., Walter, F.M., Rodono, M., and Linsky, J.L. 1989, Rotational modulation and flares on RS Canum Venaticorum and BY Draconis stars. XI. Ultraviolet spectral images of AR Lacertae in September 1985, A. & A., 215, 79.

Neff, J.S., Ellis, T.A., Apt., T., and Bergstrahl, J.T. 1985, Bolometric albedos of Titan, Uranus, and Neptune, Icarus, 62, 425.

Nelan, E.P., and Wegner, G. 1985, Identification of the 1400 and 1600 Å features observed in the ultraviolet spectra of DA white dwarfs, Ap. J., 289, L31.

Nelson, R.M., Lane, A.L., Matson, D.L., Veeder, G.J., Buratti, B.J., and Tedesco, E.F. 1987, Spectral geometric albedos of the Galilean satellites from 0.24 to 0.34 micrometers: observations with the International Ultraviolet Explorer, Icarus, 72, 358.

Nelson, R.M., Smythe, W.D., Hapke, B.W., and Cohen, A.J. 1990, On the effect of X-rays on the color of elemental sulfur: implications for Jupiter's satellite Io, Icarus, 85, 326.

Nesci, R. 1981, Theoretical and observed UV energy distributions of 7 globular clusters, A. & A., 99, 120.

Nesci, R. 1983, An ultraviolet approach to M15, A. & A., 121, 226.

Nesci, R. 1983, Predicted and observed UV spectrum of M5, A. & A., 121, 325.

Nesci, R., and Perola, G.C. 1985, The ultraviolet spectra of normal elliptical galaxies: a population synthesis approach, *A. & A.*, 145, 296.

Netzer, H. 1985, The far-ultraviolet continuum of quasars and the universe at $Z > 4$, *Ap. J.*, 289, 451.

Netzer, H., Kollatschny, W., and Fricke, K.J. 1987, Study of multiple nucleus galaxies. II. Mkn 739, *A. & A.*, 171, 41.

Netzer, H., and Maoz, D. 1990, On the emission-line response to continuum variations in the Seyfert galaxy NGC 5548, *Ap. J.*, 365, L5.

Netzer, H., Wamsteker, W., Wills, B.J., and Wills, D. 1985, The ultraviolet spectra of active galaxies with weak optical Fe II lines, *Ap. J.*, 292, 143.

Neugebauer, G., Morton, D., Oke, J.B., Becklin, E.E., Daltabuit, E., Matthews, K., Persson, S.E., Smith, A.M., Soifer, B.T., Torres-Peimbert, S., and Wynn-Williams, C.G. 1980, Recombination spectrum and reddening in NGC 1068, *Ap. J.*, 238, 502.

Newmark, J.S., Buzasi, D.L., Huenemoerder, D.P., Ramsey, L.W., Barden, S.C., Nations, H.L., and Seeds, M.A. 1990, Coordinated optical and ultraviolet observations of DH Leo, *A.J.*, 100, 560.

Nichols-Bohlin, J., and Fesen, R.A. 1986, High-velocity interstellar gas in the line of sight to the Wolf-Rayet star HD 50896, *A.J.*, 92, 642.

Nichols-Bohlin, J., and Fesen, R.A. 1990, High-velocity interstellar gas in the lines of sight to the Wolf-Rayet stars HD 97152 and HD 96548, *Ap. J.*, 353, 281.

Norgaard-Nielsen, H.U., Hansen, L., and Jorgensen, H.E. 1990, Off-nucleus IUE observations of NGC 1275, *A. & A.*, 240, 70.

Norgaard-Nielsen, H.U., Jorgensen, H.E., and Hansen, L. 1984, Detection of diffuse Lyman alpha emission from the cD Galaxy in Abell 1795, *A. & A.*, 135, L3.

Norgaard-Nielsen, H.U., and Kjaergaard, P. 1981, The ultraviolet spectrum of the normal giant elliptical NGC 4472, *A. & A.*, 93, 290.

Nousek, J.A., and Pravdo, S.H. 1983, IUE observations of E1405-451: a new AM Herculis type cataclysmic variable, Ap. J., 266, L39.

Nousek, J.A., Shipman, H.L., Holberg, J.B., Liebert, J., Pravdo, S.H., White, N.E., and Giommi, P. 1986, H1504+65: an extraordinarily hot compact star devoid of hydrogen and helium, Ap. J., 309, 230.

Nussbaumer, H., and Schild, H. 1979, C III observable with IUE, A. & A., 75, L17.

Nussbaumer, H., and Schild, H. 1981, A model for V1016 Cyg based on the ultraviolet spectrum, A. & A., 101, 118.

Nussbaumer, H., Schild, H., Schmid, H.M., and Vogel, M. 1988, Relative C, N, O abundances in red giants, planetary nebulae, novae and symbiotic stars, A. & A., 198, 179.

Nussbaumer, H., and Schmid, H.M. 1988, Discovery of a 9.5-year period in the symbiotic star V 1016 Cyg, A. & A., 192, L10.

Nussbaumer, H., and Schmutz, W. 1983, The ultraviolet variability of the symbiotic star HBV 475, A. & A., 126, 59.

Nussbaumer, H., and Schmutz, W. 1986, The nitrogen abundance in Wolf-Rayet WC stars, A. & A., 154, 100.

Nussbaumer, H., Schmutz, W., Smith, L.J., and Willis, A.J. 1982, IUE ultraviolet spectrophotometry of 15 galactic Wolf-Rayet stars, A. & A. Suppl., 47, 257.

Nussbaumer, H., Schmutz, W., and Vogel, M. 1986, The ultraviolet variability of the symbiotic star HBV 475. III. The periodicity of HBV 475, A. & A., 169, 154.

Nussbaumer, H., and Vogel, M. 1987, A new approach to symbiotic stars, A. & A., 182, 51.

Nussbaumer, H., and Vogel, M. 1989, Z Andromedae and the symbiotic phenomenon, A. & A., 213, 137.

Nussbaumer, H., and Vogel, M. 1990, HM Sagittae: the evolution of a symbiotic nova, A. & A., 236, 117.

- O'Brien, P.T., Gondhalekar, P.M., and Wilson, R. 1988, The ultraviolet continuum of quasars - I. The shape of the continuum, continuum reddening and intervening absorption, M.N.R.A.S., 233, 801.
- O'Brien, P.T., Gondhalekar, P.M., and Wilson, R. 1988, The ultraviolet continuum of quasars - II. Continuum variability, M.N.R.A.S., 233, 845.
- O'Brien, P.T., and Zheng, W. 1990, The structure of the broad line region in Fairall 9, Astrophys. Sp. Sci., 171, 77.
- O'Brien, P.T., Zheng, W., and Wilson, R. 1989, Broad emission line variability in 3C 273, M.N.R.A.S., 240, 741.
- O'Connell, R.W., Thuan, T.X., and Puschell, J.J. 1986, The strong UV source in the active E galaxy NGC 4552, Ap. J., 303, L37.
- O'Dell, C.R., and Opal, C.B. 1989, Spectrophotometry near the atmospheric cutoff of the strongest Bowen resonance fluorescence lines of O III in two planetary nebulae, Ap. J., 341, L79.
- Ockert, M.E., Nelson, R.M., Lane, A.L., and Matson, D.L. 1987, Europa's ultraviolet absorption band (260 to 320 nm): temporal and spatial evidence from IUE, Icarus, 70, 499.
- Odegard, N., and Cassinelli, J.P. 1982, X-ray luminosities of B supergiants estimated from ultraviolet resonance lines, Ap. J., 256, 568.
- Oke, J.B., Bertola, F., and Capaccioli, M. 1981, IUE observations of two elliptical galaxies: NGC 3379 and NGC 4472, Ap. J., 243, 453.
- Oke, J.B., and Goodrich, R.W. 1981, IUE and visual spectrophotometry of Markarian 9, Markarian 10, and 3C390.3, Ap. J., 243, 445.
- Oke, J.B., Weidemann, V., and Koester, D. 1984, Temperatures and surface gravities of DB white dwarfs, Ap. J., 281, 276.
- Oke, J.B., and Zimmerman, B. 1979, IUE and visual spectrophotometry of 3C120 and Markarian 79, Ap. J., 231, L13.

- Oliverson, N.A., and Anderson, C. 1983, Observational studies of the symbiotic stars. II. Emission-line relative intensity variations in CI Cygni, BF Cygni, AX Persei, and V1016 Cygni, Ap. J., 268, 250.
- Oliverson, N.A., Anderson, C.M., Stencel, R.E., and Slovak, M.H. 1985, Observational studies of the symbiotic stars. III. High-dispersion IUE and H alpha observations of EG Andromedae, Ap. J., 295, 620.
- Olson, E. 1982, Transient photometric disturbances in Algol-like binaries, Ap. J., 259, 702.
- Onaka, T., Tanaka, W., Watanabe, T., Watanabe, J., Yamaguchi, A., Nakagiri, M., Kodaira, K., Nakano, M., Sasaki, M., Tsujimura, T., and Yamashita, K. 1989, Vacuum ultraviolet imagery of the Virgo Cluster region, Ap. J., 342, 238.
- Oranje, B.J. 1986, Magnetic structure in cool stars. IX. Ultraviolet emission lines from chromospheres and transition regions, A. & A., 154, 185.
- Oranje, B.J., and Zwaan, C. 1985, Magnetic structure in cool stars. VIII. The Mg II h and k surface fluxes in relation to the Mt. Wilson photometric Ca II H and K measurements, A. & A., 147, 265.
- Oranje, B.J., Zwaan, C., and Middlekoop, F. 1982, Magnetic structure in cool stars, A. & A., 110, 30.
- Ortolani, S., and D'Odorico, S. 1980, A discussion on the nature of the Herbig-Haro object No. 1 from its far UV spectrum, A. & A., 83, L8.
- Ortolani, S., Rafenelli, P., Rosino, L., and Vittone, A. 1980, The recent outburst of the dwarf nova WZ Sagittae, A. & A., 87, 31.
- Osborne, J.P., Beuermann, K., Charles, P., Maraschi, L., Mukai, K., and Treves, A. 1987, A new soft X-ray mode in the AM Herculis object E2003+225, Ap. J., 315, L123.
- Osborne, J.P., Bonnet-Bidaud, J.-M., Bowyer, S., Charles, P.A., Chiappetti, L., Clarke, J.T., Henry, J.P., Hill, G.J., Kahn, S., Maraschi, L., Mukai, K., Treves, A., and Vrtilek, S. 1986, A multi-wavelength study of the long-period AM Her system E 2003+225 - I. The soft X-ray light curve and the overall energy spectrum, M.N.R.A.S., 221, 823.

- Owen, T., Caldwell, J., Rivolo, A.R., Moore, V., Lane, A.L., Sagan, C., Hunt, G., and Ponnampерuma, C. 1980, Observations of the spectrum of Jupiter from 1500 to 2000 Å with the IUE, Ap. J., 236, L39.
- Ozovich, I., and Gibson, D.M. 1987, An IUE survey of activity in red giants and supergiants, Ap. J., 319, 383.
- Paerels, F.B.S., Bleeker, J.A.M., Brinkman, A.C., and Heise, J. 1986, Measurement of the EUV spectrum of the hot white dwarf Feige 24, Ap. J., 309, L33.
- Paerels, F.B.S., Bleeker, J.A.M., Brinkman, A.C., and Heise, J. 1988, The high-resolution photospheric soft X-ray spectrum of Sirius B, Ap. J., 329, 849.
- Panagia, N. 1988, Ultraviolet observations of SN 1987A, Proc. Astron. Soc. Australia, 7, 390.
- Panagia, N., Gilmozzi, R., Clavel, J., Barylak, M., Gonzalez Riesta, R., Lloyd, C., Sanz Fernandez de Cordoba, L., and Wamsteker, W. 1987, Photometric properties of SN 1987A and other sources in the same field, A. & A., 177, L25.
- Panagia, N., Vettolani, G., Boksenberg, A., Ciatti, F., Ortolani, S., Rafanelli, P., Rosino, L., Gordon, C., Reimers, D., Hempe, K., Benvenuti, P., Clavel, J., Heck, A., Penston, M.V., Macchietto, F., Stickland, D.J., Bergeron, J., Tarenghi, M., Marano, B., Palumbo, G.C., Parmar, A.N., Pollard, G.S.W., Sanford, P.W., Sargent, W.L.W., Sramek, R.A., Weiler, K.W., and Matzik, P. 1980, Coordinated optical, ultraviolet, radio and X-ray observations of supernova 1979c in M 100, M.N.R.A.S., 192, 861.
- Panek, R.J. 1983, Ultraviolet flux distributions of stars in the Orion Nebula Cluster, Ap. J., 270, 169.
- Panek, R.J., and Holm, A.V. 1984, Ultraviolet spectroscopy of the dwarf nova U Geminorum, Ap. J., 277, 700.
- Paresce, F. 1984, On the distribution of interstellar matter around the sun, A.J., 89, 1022.
- Parsons, S.B. 1980, Ultraviolet spectroscopy of F and G supergiants with IUE. I. First results on cepheid variables, Ap. J., 239, 555.
- Parsons, S.B. 1981, HR 4511: a probable Cepheid with a supergiant-like hot companion, Ap. J., 245, 201.

- Parsons, S.B. 1982, Ultraviolet spectroscopy of F and G supergiants with IUE. II. The hot companions of HR 2786 and HR 2859, P.A.S.P., 94, 642.
- Parsons, S.B., and Ake, T.B. 1990, HD 51956: a supergiant in an interacting binary, Ap. J., 364, L13.
- Parsons, S.B., Ake, T.B., and Hopkins, J.L. 1985, The August 1984 eclipse of 22 Vulpeculae, P.A.S.P., 97, 725.
- Parsons, S.B., Holm, A.V., and Kondo, Y. 1983, HD 207739: a strange composite star, Ap. J., 264, L19.
- Parthasarathy, M., Cornachin, M., and Hack, M. 1986, The ultraviolet spectrum of Upsilon Sagittarii, A. & A., 166, 237.
- Parthasarathy, M., Hack, M., and Tektunali, G. 1990, The ultraviolet spectrum of the hydrogen-poor binary HD 30353, A. & A., 230, 136.
- Parthasarathy, M., Pottasch, S.R., and Wamsteker, W. 1988, IUE observations of high galactic latitude F supergiants HD 161796 and HD 187885, A. & A., 203, 117.
- Parthasarathy, M., Sneden, C., and Bohm-Vitense, E. 1984, IUE observations of weak G-band stars, P.A.S.P., 96, 44.
- Patriarchi, P., and Perinotto, M. 1985, Properties of dust in the Orion Nebula, A. & A., 143, 35.
- Patriarchi, P., Perinotto, M., and Cerruti-Sola, M. 1989, Model atmospheres and parameters of central stars of planetary nebulae, Ap. J., 345, 327.
- Pauldrach, A.W.A., and Puls, J. 1990, Radiation-driven winds of hot luminous stars. VIII. The bistable wind of the luminous blue variable P Cygni (B1 Ia+), A. & A., 237, 409.
- Payne, B.J., and Coe, M.J. 1987, The ultraviolet variability of binary X-ray pulsars: observations of Vela X-1, A0535+26 and 4U1145-619, M.N.R.A.S., 225, 985.
- Peimbert, M., Pena, M., and Torres-Peimbert, S. 1986, The chemical composition of NGC 2363, A. & A., 158, 266.

- Peimbert, M., and Torres-Peimbert, S. 1981, Physical conditions in the nucleus of M81, Ap. J., 245, 845.
- Pena, M., and Ruiz, M.T. 1988, A spectrophotometric study of the planetary nebula N66 in the Large Magellanic Cloud, Rev. Mex. Astron. Astrof., 16, 55.
- Pena, M., Ruiz, M.T., Torres-Peimbert, S., and Maza, J. 1990, A newly discovered carbon-poor planetary nebula: PN 242-37.1, A. & A., 237, 454.
- Pena, M., and Torres-Peimbert, S. 1981, Ultraviolet spectrum of the planetary nebula NGC 7662. Observations and models, Rev. Mex. Astron. Astrof., 6, 309.
- Penning, W.R., Ferguson, D.H., McGraw, J.T., Liebert, J., and Green, R.F. 1984, PG 1012-029: A high-excitation eclipsing cataclysmic variable, Ap. J., 276, 233.
- Penston, M.V. 1988, On the nature of the Broad Line Region clouds, M.N.R.A.S., 233, 601.
- Penston, M.V., and Allen, D.A. 1985, On the ultraviolet spectrum of AG Peg, M.N.R.A.S., 212, 939.
- Penston, M.V., Benvenuti, P., Cassatella, A., Heck, A., Selvelli, P., Macchett, F., Ponz, D., Jordan, C., Cramer, N., Rufener, F., and Manfroid, J. 1983, IUE and other new observations of the slow nova RR Tel, M.N.R.A.S., 202, 833.
- Penston, M.V., Boksenberg, A., Bromage, G.E., Clavel, J., Elvius, A., Gondhalekar, P.M., Jordan, C., Lind, J., Lindegren, L., Perola, G.C., Pettini, M., Snijders, M.A.J., Tanzi, E.G., Tarenghi, M., and Ulrich, M.-H. 1981, Detailed observations of NGC 4151 with IUE - I. Low dispersion data up to 1979 January, M.N.R.A.S., 196, 857.
- Penston, M.V., Clavel, J., Snijders, M.A.J., Boksenberg, A., and Fosbury, R.A.E. 1979, Far-ultraviolet profiles in the Seyfert galaxy NGC 4151, M.N.R.A.S., 189, 45P.
- Penston, M.V., and Lago, M.T.V.T. 1983, Optical and ultraviolet line profiles and ultraviolet line intensities in the T Tauri star LHa 332-21, M.N.R.A.S., 202, 77.
- Perez, E., Penston, M.V., Tadhunter, C., Mediavilla, E., and Moles, M. 1988, An accretion disc in the broad-line radio galaxy 3C390.3?, M.N.R.A.S., 230, 353.

- Perinotto, M., and Benvenuti, P. 1981, UV spectroscopy of planetary nebulae, A. & A., 100, 241.
- Perinotto, M., and Benvenuti, P. 1981, The planetary nebula NGC 7009, A. & A., 101, 88.
- Perinotto, M., Benvenuti, P., and Cerruti-Sola, M. 1982, Stellar wind in the nucleus of IC 2149, A. & A., 108, 314.
- Perinotto, M., Cerruti-Sola, M., and Lamers, H.J.G.L.M. 1989, Fast winds from the central stars of NGC 6543 and NGC 6826, Ap. J., 337, 382.
- Perinotto, M., Panagia, N., and Benvenuti, P. 1980, Physical conditions and abundances of CNO elements in NGC 7027, A. & A., 85, 332.
- Perinotto, M., and Patriarchi, P. 1980, The abundance of carbon and magnesium in the Orion Nebula, Ap. J., 235, L13.
- Perinotto, M., and Patriarchi, P. 1980, IUE observations of the continuous spectrum of the Orion Nebula, Ap. J., 238, 614.
- Perola, G.C., Boksenberg, A., Bromage, G.E., Clavel, J., Elvis, M., Elvius, A., Gondhalekar, P.M., Lind, J., Lloyd, C., Penston, M.V., Pettini, M., Snijders, M.A.J., Tanzi, E.G., Tarenghi, M., Ulrich, M.-H., and Warwick, R.S. 1982, Detailed observations of NGC 4151 with IUE - II. Variability of the continuum from 1978 February to 1980 May, including X-ray and optical observations, M.N.R.A.S., 200, 293.
- Perola, G.C., Piro, L., Altamore, A., Fiore, F., Boksenberg, A., Penston, M.V., Snijders, M.A.J., Bromage, G.E., Clavel, J., Elvius, A., and Ulrich, M.-H. 1986, New results on the X-ray emission and its correlation with the ultraviolet in NGC 4151, Ap. J., 306, 508.
- Perola, G.C., and Tarenghi, M. 1980, IUE spectra of the jet and the nucleus of M87, Ap. J., 240, 447.
- Persic, M., Hack, M., and Selvelli, P.L. 1984, The UV variations of the symbiotic star CH Cygni from 1978 to 1981, A. & A., 140, 317.
- Pesce, J.E., Stencel, R.E., and Oliversen, N.A. 1987, The search for the elusive companion of EG Andromedae, P.A.S.P., 99, 1178.

Peters, G. J. 1982, Evidence for mass loss at polar latitudes in the Be stars Omega Orionis and 66 Ophiuchi, Ap. J., 253, L33.

Peters, G. J. 1984, Ultraviolet observations of the Be star Mu Centauri during its recent active phase, P.A.S.P., 96, 960.

Peters, G. J. 1986, Observation of the onset of an emission episode in the Be star Mu Centauri, Ap. J., 301, L61.

Peters, G. J. 1988, Recent unusual activity in the Be star FY Canis Majoris, Ap. J., 331, L33.

Peters, G. J. 1988, The loss and reestablishment of the wind in 66 Ophiuchi in 1985, P.A.S.P., 100, 207.

Peters, G. J., and Polidan, R. S. 1984, Evidence for a high-temperature accretion region in Algol-type binary systems, Ap. J., 283, 745.

Peterson, B. M., Reichert, G. A., Korista, K. T., and Wagner, R. M. 1990, Ultraviolet and optical spectroscopy of NGC 5548 and the nature of the broad-line region, Ap. J., 352, 68.

Petitjean, P., Boisson, C., and Pequignot, D. 1990, A photoionization model study of the old nova shell DQ Herculis 1934, A. & A., 240, 433.

Pettersen, B. R. 1989, Chromospheric lines in red dwarf flare stars. III, A. & A., 209, 279.

Pettini, M., Benvenuti, P., Blades, J. C., Boggess, A., Boksenberg, A., Grewing, M., Holm, A., King, D. L., Panagia, N., Penston, M. V., Savage, B. D., Wamsteker, W., and Wu, C.-C. 1982, The interstellar spectrum of the supernova 1980k in NGC 6946, M.N.R.A.S., 199, 409.

Pettini, M., and Boksenberg, A. 1985, PG 1700+518: a low-redshift, broad absorption line QSO, Ap. J., 294, L73.

Pettini, M., Hunstead, R. W., Murdoch, H. S., and Blades, J. C. 1983, CIV absorption in the high-redshift BL Lac object 0215+015, II. New observations at 20 km/s resolution, Ap. J., 273, 436.

- Pettini, M., and West, K.A. 1982, A study of interstellar absorption at high galactic latitudes. I. Highly ionized gas, Ap. J., 260, 561.
- Philip, A.G.D., Hayes, D.S., and Adelman, S.J. 1990, Ultraviolet spectra of field horizontal-branch A-type stars. II., P.A.S.P., 102, 649.
- Philip, A.G.D., Hayes, D.S., and Huenemoerder, D.P. 1987, Ultraviolet spectra of field horizontal-branch A-type stars, P.A.S.P., 99, 54.
- Phillips, A.P., and Gondhalekar, P.M. 1981, High-velocity interstellar CIV and SiIV toward two stars in the I Per OB association, M.N.R.A.S., 196, 533.
- Phillips, A.P., and Gondhalekar, P.M. 1983, Further ultraviolet observations of interstellar gas associated with the supernova remnant S 147, M.N.R.A.S., 202, 483.
- Phillips, A.P., Gondhalekar, P.M., and Blades, J.C. 1981, High-velocity gas associated with the supernova remnant S147, M.N.R.A.S., 195, 485.
- Phillips, A.P., Gondhalekar, P.M., and Pettini, M. 1982, A study of element depletions in interstellar gas, M.N.R.A.S., 200, 687.
- Phillips, A.P., Pettini, M., and Gondhalekar, P.M. 1984, Element depletions in interstellar gas - II. The density-dependence of calcium and sodium depletions, M.N.R.A.S., 206, 337.
- Phillips, A.P., Welsh, B.Y., and Pettini, M. 1984, IUE observations of high-velocity interstellar gas toward stars within the OB association Cyg OB1, M.N.R.A.S., 206, 55.
- Phillips, K.J.H., Bromage, G.E., Dufton, P.L., Keenan, F.P., and Kingston, A.E. 1988, Flare activity on UV Ceti: visible and IUE observations, M.N.R.A.S., 235, 573.
- Plavec, M.J. 1983, Far-ultraviolet emission lines in U Cephei: evidence for a hot turbulent circumstellar envelope, Ap. J., 275, 251.
- Plavec, M.J. 1988, The Algol-like binary TT Hydreae: the stars, circumstellar matter, and superionized plasma, A.J., 96, 755.

- Plavec, M.J., and Dobias, J.J. 1983, RW Tauri as a weak W Serpentis star, Ap. J., 272, 206.
- Plavec, M.J., and Dobias, J.J. 1987, The moderately interacting Algol binary RS Cephei, A.J., 93, 171.
- Plavec, M.J., and Dobias, J.J. 1987, The moderately interacting Algol-type eclipsing binary RY Geminorum, A.J., 93, 440.
- Plavec, M.J., and Weiland, J.L. 1982, Energy distribution in the strongly interacting binary system SX Cassiopeiae, Ap. J., 256, 206.
- Polcaro, V.F., Rossi, C., Giovannelli, F., Ferrari-Toniolo, M., La Padula, C., Persi, P., Manchanda, R.K., Golinskaya, I.M., Kurt, V.G., Misykima, T.A., Shafer, E.Yu., Shamolin, V.M., Smirnov, A.S., Sheffer, E.K., Boyarchuck, A.A., and Gershberg, R. 1990, BD+37 1160: a probable optical counterpart of the X-ray source 1H 0521+373, A. & A., 231, 354.
- Polidan, R.S., and Holberg, J.B. 1984, Far-UV and extreme-UV observations of SS Cyg and U Gem for Voyagers 1 and 2, Nature, 309, 528.
- Polidan, R.S., Mauche, C.W., and Wade, R.A. 1990, A study of extreme-ultraviolet emission from cataclysmic variables, Ap. J., 356, 211.
- Polidan, R.S., and Plavec, M.J. 1984, A hot companion to Mu Sagittarii: an opportunity to sound the atmosphere of a B8 Ia supergiant, A.J., 89, 1721.
- Pottasch, S.R., Dennefeld, M., and Mo Jing-er 1986, Abundances in the planetary nebula NGC 6153, A. & A., 155, 397.
- Pottasch, S.R., Gathier, R., Gilra, D.P., and Wesselius, P.R. 1981, The ultraviolet spectrum of the planetary nebula NGC 2371 and its exciting star, A. & A., 102, 237.
- Pottasch, S.R., Gilra, D.P., and Wesselius, P.R. 1982, Abundances in the planetary nebula NGC 6853, A. & A., 109, 182.
- Pottasch, S.R., Preite-Martinez, A., Olnon, F.M., Mo Jing-er, and Kingma, S. 1986, IRAS spectra of planetary nebulae. III., A. & A., 161, 363.

Pottasch, S.R., Wesselius, P.R., and van Duinen, R.J. 1979, Determination of cooling rates in the interstellar medium, *A. & A.*, 74, L15.

Praderie, F., Simon, T., Catala, C., and Boesgaard, A.M. 1986, Short-term spectral variability in AB Aurigae: clues for activity in Herbig Ae stars. I. The ultraviolet lines of Mg II and Fe II, *Ap. J.*, 303, 311.

Praderie, F., Talavera, A., Felenbok, P., Czarny, J., and Merchant Boesgaard, A. 1982, The chromosphere and wind of the Herbig AE star, AB Aurigae, *Ap. J.*, 254, 658.

Praderie, F., Talavera, A., and Lamers, H.J.G.L.M. 1980, Resonance line profiles in A type supergiants from IUE and Copernicus spectra, *A. & A.*, 86, 271.

Pravdo, S.H., White, N.E., Kondo, Y., Becker, R.H., Boldt, E.A., Holt, S.S., Serlemitsos, P.J., and McCluskey, G.E. 1980, X-ray and ultraviolet spectroscopy of Cygnus X-1 = HDE 226868, *Ap. J.*, 237, L71.

Prevot, L., Laurent, C., Paul, J., Vidal-Madjar, A., Audouze, J., Ferlet, R., Lequeux, J., Maucherat-Joubert, M., Prevot-Burnichon, M.L., and Rocca-Volmerange, B. 1980, Highly ionized species in the spectra of Small Magellanic Cloud stars, *A. & A.*, 90, L13.

Prialnik, D., and Bar-Nun, A. 1990, Gas release in comet nuclei, *Ap. J.*, 363, 274.

Pringle, J.E. 1988, White dwarf heating and the ultraviolet flux in dwarf novae, *M.N.R.A.S.*, 230, 587.

Pringle, J.E., Bateson, F.M., Hassall, B.J.M., Heise, J., van der Woerd, H., Holberg, J.B., Polidan, R.S., van Amerongen, S., van Paradijs, J., and Verbunt, F. 1987, Multiwavelength monitoring of the dwarf nova VW Hydri. I. Overview, *M.N.R.A.S.*, 225, 73.

Pringle, J.E., Verbunt, F., and Wade, R.A. 1986, Dwarf novae in outburst: modelling the observations, *M.N.R.A.S.*, 221, 169.

Prinja, R.K. 1984, IUE ultraviolet observations of narrow absorption components in the spectrum of Zeta Puppis, *M.N.R.A.S.*, 207, 157.

Prinja, R.K. 1987, The stellar winds of early-type stars in the Small Magellanic Cloud, *M.N.R.A.S.*, 228, 173.

- Prinja, R.K. 1988, Evidence for rotationally modulated variability in O star winds, M.N.R.A.S., 231, 21P.
- Prinja, R.K. 1989, Ultraviolet observations of stellar winds in Be and 'normal' B non-supergiant stars, M.N.R.A.S., 241, 721.
- Prinja, R.K. 1990, Similarities in the wind characteristics of hot stars, A. & A., 232, 119.
- Prinja, R.K. 1990, Photospheric absorption lines in the UV spectra of O and B type stars, M.N.R.A.S., 246, 392.
- Prinja, R.K., Barlow, M.J., and Howarth, I.D. 1990, Terminal velocities for a large sample of O stars, B supergiants, and Wolf-Rayet stars, Ap. J., 361, 607.
- Prinja, R.K., and Howarth, I.D. 1986, Narrow absorption components and variability in ultraviolet P Cygni profiles of early-type stars, Ap. J. Suppl., 61, 357.
- Prinja, R.K., and Howarth, I.D. 1988, Opacity enhancements in the stellar wind of 68 Cygni - not 'shells' or 'puffs', M.N.R.A.S., 233, 123.
- Prinja, R.K., Howarth, I.D., and Henrichs, H.F. 1987, Ultraviolet observations of extensive variability in the stellar wind of Xi Persei, Ap. J., 317, 389.
- Prisant, M.G., and Jackson, W.M. 1987, A rotational-state population analysis of the high-resolution IUE observation of CS emission in comet P/Halley; A. & A., 187, 489.
- Pwa, T.H., Mo, J.E., and Pottasch, S.R. 1984, Nebular and interstellar absorption lines in planetary nebulae: the case of NGC 6543, A. & A., 139, L1.
- Pwa, T.H., and Pottasch, S.R. 1986, Detailed analysis of the ISM toward Zeta Oph and 9 Sgr, A. & A., 164, 116.
- Pwa, T.H., Pottasch, S.R., and Mo, J.E. 1986, Abundances in the planetary nebula BD +30 3639, A. & A., 164, 184.

- Querci, F., Querci, M., Wing, R.F., Cassatella, A., and Heck, A. 1982, On the structure of the outer layers of cool carbon stars, A. & A., 111, 120.
- Querci, M., and Querci, F. 1985, Temporal variations in UV spectra of the red giant C star, TW Hor, A. & A., 147, 121.
- Raassen, A.J.J. 1985, Additional identifications of high ionization stages of iron and nickel in the ultraviolet spectrum of the slow nova RR Telescopii, Ap. J., 292, 696.
- Rahe, J., Boggess, A., Drechsel, H., Holm, A., and Krautter, J. 1980, Detection of periodic light variations in the old nova V603 Aquilae (1918), A. & A., 88, L9.
- Ramella, M., Castelli, F., Malagnini, M.L., Morossi, C., and Pasian, F. 1987, Identification lists of the far UV spectra of 7 solar chemical composition main sequence stars in the spectral range B2-B9.5, A. & A. Suppl., 69, 1.
- Ramella, M., Morossi, C., and Santin, P. 1980, Ultraviolet observations of the blue halo star: HD 93521, A. & A., 90, 146.
- Rao, N.K., Nandy, K., and Bappu, M.K.V. 1981, Presence of MgII emission in R Coronae Borealis at maximum light, M.N.R.A.S., 195, 71P.
- Raymond, J.C. 1982, Ultraviolet spectra of the X-ray transient A0538-66, Ap. J., 258, 240.
- Raymond, J.C., Black, J.H., Davis, R.J., Dupree, A.K., Gursky, H., and Hartmann, L. 1979, Ultraviolet observations of AM Herculis with IUE, Ap. J., 230, L95.
- Raymond, J.C., Black, J.H., Dupree, A.K., Hartmann, L., and Wolff, R.S. 1980, Ultraviolet observations of the Cygnus Loop, Ap. J., 238, 881.
- Raymond, J.C., Black, J.H., Dupree, A.K., Hartmann, L., and Wolff, R.S. 1981, Ultraviolet emission of the Vela supernova remnant and the Cygnus Loop, Ap. J., 246, 100.
- Raymond, J.C., Blair, W.P., Fesen, R.A., and Gull, T.R. 1983, The structure and emission spectrum of a nonradiative shock wave in the Cygnus Loop, Ap. J., 275, 636.

- Raymond, J.C., Hartigan, P., and Hartmann, L. 1988, Improved bow shock models for Herbig-Haro objects: application to HH 2A', Ap. J., 326, 323.
- Raymond, J.C., Hester, J.J., Cox, D., Blair, W.P., Fesen, R.A., and Gull, T.R. 1988, Spatial and spectral interpretation of a bright filament in the Cygnus Loop, Ap. J., 324, 869.
- Rayne, M.W., and Whelan, J.A.J. 1981, The dwarf nova Z Chamaeleontis. II. Spectroscopy, M.N.R.A.S., 196, 73.
- Rego, M., Cornide, M., and Fernandez-Figueroa, M.J. 1980, The far-ultraviolet spectrum of Kappa Cet observed from IUE, A. & A. Suppl., 39, 251.
- Rego, M., and Fernandez-Figueroa, M.J. 1979, MgII and CaII emissions from three G dwarfs, A. & A., 76, 249.
- Rego, M., Gonzalez-Riestra, R., and Fernandez-Figueroa, M.J. 1983, The relationship between soft X-rays and the 1640Å feature fluxes in late-type stars, A. & A., 119, 227.
- Reichert, G.A., Polidan, R.S., Wu, C.-C., and Carone, T.E. 1988, Voyager and IUE observations of 3C 273: detection of possible Lyman continuum absorption in a nearby ($z=0.158$) quasar, Ap. J., 325, 671.
- Reimers, D. 1982, Detection of further red giants with "hybrid" atmospheres and a possible correlation with double circumstellar MgII and CaII lines, A. & A., 107, 292.
- Reimers, D. 1984, Discovery of a white dwarf companion of the "hybrid" K giant HD 81817, A. & A., 136, L5.
- Reimers, D. 1985, Discovery of a cataclysmic variable type companion of the M 3 III giant 4 Dra with IUE, A. & A., 142, L16.
- Reimers, D., Baade, R., and Schroder, K.-P. 1990, Discovery of a highly ionized, low mass-loss wind and a corona seen in absorption in the G9 II star HR 6902, A. & A., 227, 133.
- Reimers, D., Baade, R., Schroder, K.-P., and Ising, J. 1990, First observations of a corona of a cool bright giant with height resolution, A. & A., 236, L25.
- Reimers, D., and Cassatella, A. 1985, The ultraviolet spectrum of the companion of Mira (Omicron Ceti): observational evidence for a disk formed by wind accretion, Ap. J., 297, 275.

- Reimers, D., and Che-Bohnenstengal, A. 1986, A study of UV spectra of Zeta Aur/VV Cep stars. IX. Mass-loss and wind properties of the solar type supergiant 22 Vul (G 3 Ib-II), A. & A., 166, 252.
- Reimers, D., Clavel, J., Groote, D., Engels, D., Hagen, H.J., Naylor, T., Wamsteker, W., and Hopp, U. 1989, The luminous quasar HS1700+6416 and the shape of the "big bump" below 500 Å, A. & A., 218, 71.
- Reimers, D., Griffin, R.F., and Brown, A. 1988, 4 Draconis: a unique triple system containing an M3 giant and a cataclysmic binary, A. & A., 193, 180.
- Reimers, D., and Groote, D. 1983, Observations of an emission nebula associated with the carbon star UV Aur, A. & A., 123, 257.
- Reimers, D., and Schroder, K.-P. 1989, Observations of modulation and phase displacement of the stellar wind in six red giant spectroscopic binaries, A. & A., 214, 261.
- Reimers, D., and Schroder, K.P. 1983, A study of UV spectra of Zeta Aur/VV Cep stars. IV. System parameters and mass-loss of Delta Sge, A. & A., 124, 241.
- Reitermann, A., Baschek, B., Stalhl, O., and Wolf, B. 1990, Abundances from B stars of the Magellanic Clouds, A. & A., 234, 109.
- Ringuelet, A.E., Fontenla, J.M., and Rovira, M. 1981, Ultraviolet observations of 27 Canis Majoris, Pi Aquarii and 48 Librae, A. & A., 100, 79.
- Ringuelet, A.E., Rovira, M., and Fontenla, J.M. 1981, Ultraviolet continuum of a sample of Be stars, Rev. Mex. Astron. Astrof., 6, 215.
- Ringuelet, A.E., Sahade, J., Rovira, M., Fontenla, J.M., and Kondo, Y. 1984, Simultaneous IUE and ground-based observations of V923 Aquilae, A. & A., 131, 9.
- Rocca-Volmerange, B. 1989, An evolutionary model of star formation for elliptical galaxies, M.N.R.A.S., 236, 47.
- Rocca-Volmerange, B., and Guiderdoni, B. 1987, Star formation in nuclei of S0/E galaxies, A. & A., 175, 15.

Rocca-Volmerange, B., and Guiderdoni, B. 1988, An atlas of synthetic spectra of galaxies, A. & A. Suppl., 75, 93.

Rocca-Volmerange, B., Prevot, L., Ferlet, R., Lequeux, J., and Prevot-Burnichon, M.L. 1981, Ultraviolet extinction in the Small Magellanic Cloud, A. & A., 99, L5.

Rodono, M., Byrne, P.B., Neff, J.E., Linsky, J.L., Simon, T., Butler, C.J., Catalano, S., Cutispoto, G., Doyle, J.G., Andrews, A.D., and Gibson, D.M. 1987, Rotational modulation and flares on RS CVn and BY Dra stars. III. IUE observations of V711 Tau (=HR 1099), II Peg, and AR Lac, A. & A., 176, 267.

Rodono, M., Cutispoto, G., Pazzani, V., Catalano, S., Byrne, P.B., Doyle, J.G., Butler, C.J., Andrews, A.D., Blanco, C., Marilli, E., Linsky, J.L., Scaltriti, F., Busso, M., Cellino, A., Hopkins, J.L., Okazaki, A., Hayashi, S.S., Zeilik, M., Helston, R., Henson, G., Smith, P., and Simon, T. 1986, Rotational modulation and flares on RS CVn and BY Dra-type stars. I. Photometry and spot models for BY Dra, AU Mic, AR Lac, II Peg, and V711 Tau (=HR 1099), A. & A., 165, 135.

Rodriguez-Pascual, P.M., Santos-Lleo, M., and Clavel, J. 1989, A comparative study of the discrete and cross correlation techniques: an application to the NGC 5548 IUE light-curve, A. & A., 219, 101.

Roettger, E.E., Feldman, P.D., A'Hearn, M.F., and Festou, M.C. 1990, Comparison of water production rates from UV spectroscopy and visual magnitudes for some recent comets, Icarus, 86, 100.

Roettger, E.E., Feldman, P.D., A'Hearn, M.F., Festou, M.C., McFadden, L.A., and Gilmozzi, R. 1989, IUE observations of the evolution of Comet Wilson (1986I): comparison with P/Halley, Icarus, 80, 303.

Rogers, C., Martin, P.G., and Crabtree, D.R. 1983, The circumstellar dust of Mu Cephei, Ap. J., 272, 175.

Rosa, M. 1980, IUE UV spectra of giant extragalactic HII regions, A. & A., 85, L21.

Rosa, M., Joubert, M., and Benvenuti, P. 1984, IUE UV spectra of extragalactic H II regions. I. The catalogue and the atlas, A. & A. Suppl., 57, 361.

Rosenzweig, P., and Morrison, N.D. 1986, The extinction law in the open cluster NGC 457 and the intrinsic energy distribution of Phi Cassiopeiae (F0 Ia), Ap. J., 306, 522.

- Rosino, L., Bianchini, A., and Rafanelli, P. 1982, The ultraviolet spectrum of the old novae HR Del, GK Per, RR Pic, and RS Oph, *A. & A.*, 108, 243.
- Rossi, C., Altamore, A., Ferrari-Toniolo, M., Persi, P., and Viotti, R. 1988, The Mira-type symbiotic star BI Crucis, *A. & A.*, 206, 279.
- Rossi, L., Viotti, R., and Altamore, A. 1984, A comparative study of the ultraviolet spectrum of hot subdwarfs, *A. & A. Suppl.*, 55, 361.
- Rovira, M., Ringuelet, A.E., Fontenla, J.M., Sahade, J., and Kondo, Y. 1985, Simultaneous IUE and ground-based observations of 48 Librae, *Rev. Mex. Astron. Astrof.*, 10, 245.
- Rowlands, N., Houck, J.R., Herter, T., Gull, G.E., and Skrutskie, M.F. 1989, Electron temperatures in the high-excitation zones of planetary nebulae, *Ap. J.*, 341, 901.
- Rucinski, S.M. 1984, Can activity of the secondary components explain the emission-line spectra of cataclysmic binaries, *Observatory*, 104, 186.
- Rucinski, S.M. 1985, IUE observations of HD 36705, *M.N.R.A.S.*, 215, 591.
- Rucinski, S.M. 1985, The Mg II emission in W UMa-type binaries, *M.N.R.A.S.*, 215, 615.
- Rucinski, S.M. 1985, The Mg II emission in BD -0 4234, *Observatory*, 105, 77.
- Rucinski, S.M. 1985, IUE observations of HD 164615, *P.A.S.P.*, 97, 657.
- Rucinski, S.M., Brunt, C.C., Pringle, J.E., and Vilhu, O. 1984, IUE observations of two extremes among contact binaries: AW Ursae Majoris and SW Lacertae, *M.N.R.A.S.*, 208, 309.
- Rucinski, S.M., and Vilhu, O. 1983, IUE observations of W UMa-type stars, *M.N.R.A.S.*, 202, 1221.
- Rucinski, S.M., Vilhu, O., and Whelan, J.A.J. 1985, The Lyman alpha emission in W Ursae Majoris, *A. & A.*, 143, 153.

- Rudy, R.J., Cohen, R.D., and Ake, T.B. 1988, Ultraviolet and optical spectrophotometry of the Seyfert 1.8 galaxy Markarian 609, Ap. J., 332, 172.
- Rudy, R.J., Cohen, R.D., and Puetter, R.C. 1985, IUE observations of the Seyfert 1.9 galaxy Markarian 423, Ap. J., 288, L29.
- Russell, S.C., and Dopita, M.A. 1990, Abundances of the heavy elements in the Magellanic Clouds. II. H II regions and supernova remnants, Ap. J. Suppl., 74, 93.
- Rutten, R.G.M., Schrijver, C.J., Zwaan, C., Duncan, D.K., and Mewe, R. 1989, Magnetic structure in cool stars. XVI. Emissions from the outer atmospheres of M-type dwarfs, A. & A., 219, 239.
- Sadakane, K. 1984, Anomalous C IV and Si IV resonance lines in 36 Lyncis, P.A.S.P., 96, 259.
- Sadakane, K., Hirata, R., Jugaku, J., Kondo, Y., Matsuoka, M., Tanaka, Y., and Hammerschlag-Hensberge, G. 1985, Ultraviolet spectroscopic observations of HD 77581 (Vela X-1 = 4U0900-40), Ap. J., 288, 284.
- Sadakane, K., and Jugaku, J. 1981, Boron and Beryllium in early-type peculiar stars, P.A.S.P., 93, 60.
- Sadakane, K., Jugaku, J., and Takada-Hidai, M. 1985, The resonance lines of B II and Be II in Hg-Mn stars, Ap. J., 297, 240.
- Sadakane, K., Jugaku, J., and Takada-Hidai, M. 1988, The abundance of zinc in Hg-Mn stars, Ap. J., 325, 776.
- Sadakane, K., Jugaku, J., and Takada-Hidai, M. 1988, Abundances of mercury in Sirius and Vega, P.A.S.P., 100, 811.
- Sadakane, K., Nishimura, M., and Hirata, R. 1986, Analysis of the ultraviolet spectrum (2000 Å to 3000 Å) of Vega, Publ. Astron. Soc. Japan, 38, 215.
- Sadakane, K., Takada, M., and Jugaku, J. 1983, The resonance lines of aluminium in IUE spectra of B-type chemically peculiar stars, Ap. J., 274, 261.
- Saha, A., and Oke, J.B. 1982, The IUE spectrum of BD +39 4926, P.A.S.P., 94, 802.

- Sahade, J. 1980, On the structure and composition of Wolf-Rayet atmospheres, *A. & A.*, 87, L7.
- Sahade, J., and Brandi, E. 1985, The IUE spectrum of AX Monocerotis, *Rev. Mex. Astron. Astrof.*, 10, 229.
- Sahade, J., Brandi, E., and Fontenla, J.M. 1981, Variations in the ultraviolet spectrum of the symbiotic star Z Andromedae, *Rev. Mex. Astron. Astrof.*, 6, 201.
- Sahade, J., Brandi, E., and Fontenla, J.M. 1984, IUE low dispersion observations of symbiotic objects, *A. & A. Suppl.*, 56, 17.
- Sahade, J., and Ferrer, O.E. 1982, Ground-based and IUE spectral observations of AU Monocerotis, *P.A.S.P.*, 94, 113.
- Sahade, J., and Garcia, L.G. 1987, The IUE spectrum of the early-type eclipsing binary Mu-1 Scorpii, *P.A.S.P.*, 99, 617.
- Sahade, J., and Hernandez, C.A. 1984, The IUE spectrum of Gamma-1 Velorum, *P.A.S.P.*, 96, 88.
- Sahade, J., and Hernandez, C.A. 1985, An investigation of Beta Persei (Algol) in the IUE ultraviolet, *Rev. Mex. Astron. Astrof.*, 10, 257.
- Sahade, J., Kondo, Y., and McCluskey, G.E. 1984, Comments on the ultraviolet spectrum of Gamma 2 Velorum, *Ap. J.*, 276, 281.
- Sahade, J., Rovira, M., Ringuelet, A.E., Kondo, Y., and Cidale, L. 1988, The extended atmosphere of Lambda Pavonis at the time of the emergence of H-emissions from minimum intensity, *Ap. J.*, 327, 335.
- Savage, B.D., and De Boer, K.S. 1979, Observational evidence for a hot gaseous galactic corona, *Ap. J.*, 230, L77.
- Savage, B.D., and de Boer, K.S. 1981, Ultraviolet absorption by interstellar gas at large distances from the galactic plane, *Ap. J.*, 243, 460.
- Savage, B.D., Edgar, R.J., and Diplas, A. 1990, The distribution of interstellar Al III away from the galactic plane, *Ap. J.*, 361, 107.

Savage, B.D., Fitzpatrick, E.L., Cassinelli, J.P., and Ebbets, D.C. 1983, The nature of R136a, the superluminous central of the 30 Doradus Nebula, Ap. J., 273, 597.

Savage, B.D., Jenkins, E.B., Joseph, C.L., and de Boer, K.S. 1989, Ultraviolet observations of interstellar absorption lines toward SN 1987A, Ap. J., 345, 393.

Savage, B.D., and Massa, D. 1985, Ultraviolet absorption by highly ionized halo gas near the galactic center, Ap. J., 295, L9.

Savage, B.D., and Massa, D. 1987, Highly ionized interstellar gas located in the galactic disk and halo, Ap. J., 314, 380.

Savage, B.D., Massa, D., and Sembach, K. 1990, Ultraviolet interstellar absorption toward HD 163522, a halo star at 9 kiloparsecs in the direction $l=350$ and $b=-9$, Ap. J., 355, 114.

Saxner, M. 1981, Transition region structure in F dwarfs, A. & A., 104, 240.

Schachter, J., Filippenko, A.V., and Kahn, S.M. 1989, Bowen fluorescence in Scorpius X-1, Ap. J., 340, 1049.

Schaefer, B.E. 1989, Flashes from normal stars, Ap. J., 337, 927.

Schild, H., and Berthet, S. 1986, Blue stragglers and the OBN phenomenon, A. & A., 162, 369.

Schild, R. 1983, The ultraviolet reddening of Be stars, A. & A., 120, 223.

Schindler, M., Stencel, R.E., and Linsky, J.L. 1982, Ultraviolet and X-ray detection of the 56 Pegasi system(K0 IIp+WD): evidence for accretion of a cool stellar wind onto a white dwarf, Ap. J., 263, 269.

Schleicher, D.G., and A'Hearn, M.F. 1982, OH fluorescence in comets: fluorescence efficiency of the ultraviolet bands, Ap. J., 258, 864.

Schleicher, D.G., and A'Hearn, M.F. 1988, The fluorescence of cometary OH, Ap. J., 331, 1058.

Schmid, H.M., and Schild, H. 1990, Physical conditions and elemental abundances in the symbiotic novae V1016 Cyg, HM Sge and HBV 475, M.N.R.A.S., 246, 84.

- Schmidt, E.G., and Parsons, S.B. 1982, The chromospheres of classical Cepheids. I. Low resolution IUE spectra, *Ap. J. Suppl.*, 48, 185.
- Schmidt, E.G., and Parsons, S.B. 1984, The chromospheres of classical cepheids. II. High-resolution profiles of the Mg II h and k lines, *Ap. J.*, 279, 202.
- Schmidt, E.G., and Parsons, S.B. 1984, The chromospheres of classical cepheids. III. A search for transition region emission lines, *Ap. J.*, 279, 215.
- Schmidt, G.D., Latter, W.B., and Foltz, C.B. 1990, On the spectrum and field strength of the magnetic white dwarf GD 229, *Ap. J.*, 350, 758.
- Schmidt, G.D., West, S.C., Liebert, J., Green, R.F., and Stockman, H.S. 1986, The new magnetic white dwarf PG 1031+234: polarization and field structure at more than 500 million Gauss, *Ap. J.*, 309, 218.
- Schmidtko, P.C., and Hopkins, J.L. 1990, Photometry of the 1989 eclipse of Tau Persei, *Astrophys. Sp. Sci.*, 164, 323.
- Schmutz, W., Abbott, D.C., Russell, R.S., Hamann, W.-R., and Wessolowski, U. 1990, Non-LTE model calculations for SN 1987A and the extragalactic distance scale, *Ap. J.*, 355, 255.
- Schonberner, D., and Drilling, J.S. 1983, On the nature of Upsilon Sagittarii, *Ap. J.*, 268, 225.
- Schonberner, D., and Drilling, J.S. 1984, LSS 4300: A hot counterpart of Upsilon Sagittarii and KS Persei?, *Ap. J.*, 276, 229.
- Schonberner, D., and Drilling, J.S. 1984, Effective temperatures and luminosities of very hot O type subdwarfs, *Ap. J.*, 278, 702.
- Schonberner, D., and Drilling, J.S. 1985, On the ultraviolet iron spectrum of pre-white dwarfs, *Ap. J.*, 290, L49.
- Schonberner, D., and Hunger, K. 1978, The UV spectrum of the extreme helium stars BD+10 2179 and BD-9 4395, *A. & A.*, 70, L57.

- Schrijver, C.J. 1987, Magnetic structure in cool stars. XI. Relations between radiative fluxes measuring stellar activity, and evidence for two components in stellar chromospheres, A. & A., 172, 111.
- Schrijver, C.J., Dobson, A.K., and Radick, R.R. 1989, The magnetic, basal, and radiative-equilibrium components in Mount Wilson Ca II H + K fluxes, Ap. J., 341, 1035.
- Schroder, K.-P. 1986, A study of UV spectra of Zeta Aur/VV Cep systems. VIII. Chromospheric ionization and opacity, A. & A., 170, 70.
- Schroder, K.-P. 1990, A study of ultraviolet spectra of Zeta Aurigae/VV Cephei systems. XII. The physical state of supergiant chromospheres at the transition from coronae to cool winds, A. & A., 236, 165.
- Schroder, K.-P., Griffin, R.E.M., and Griffin, R.F. 1990, Optical spectra of Zeta Aurigae binary systems. II. The lower chromosphere of Zeta Aurigae, A. & A., 234, 299.
- Schroder, K.-P., and Reimers, D. 1989, A study of ultraviolet spectra of Zeta Aurigae/VV Cephei systems. XI. 22 Vulpeculae: IUE observations of its extended chromosphere and wind with spatial resolution, A. & A., 208, 223.
- Schroder, K.-P., Reimers, D., Carpenter, K.G., and Brown, A. 1988, What does C II lambda 2355 Å emission tell us about chromospheres of red supergiants? A critical test using Zeta Aurigae-type K supergiants, A. & A., 202, 136.
- Schroder, K.P. 1983, Detection of a stellar prominence of the K supergiant 32 Cyg, A. & A., 124, L16.
- Schroder, K.P. 1985, A study of ultraviolet spectra of Zeta Aurigae/VV Cephei systems. VII. Chromospheric density distribution and wind acceleration region, A. & A., 147, 103.
- Schroder, K.P., and Che-Bohnenstengel, A. 1985, Photometric and UV spectroscopic observations of 22 Vul at eclipse: observational evidence for an extended chromosphere of a "solar type" G supergiant, A. & A., 151, L5.
- Schwartz, R.D. 1983, Ultraviolet continuum and H₂ fluorescent emission in Herbig-Haro objects 43 and 47, Ap. J., 268, L37.

Schwarzenberg-Czerny, A., Ward, M., Hanes, D.A., Jones, D.H.P., Pringle, J.E., Verbunt, F., and Wade, R.A. 1985, Dwarf novae in outburst: simultaneous ultraviolet and optical observations of VW Hydri, M.N.R.A.S., 212, 645.

Seab, C.G., and Shull, J.M. 1983, Shock processing of interstellar grains, Ap. J., 275, 652.

Seab, C.G., and Snow, T.P. 1984, Ultraviolet extinction and diffuse band strength correlations, Ap. J., 277, 200.

Seab, C.G., and Snow, T.P. 1985, A search for diffuse interstellar bands in the ultraviolet, Ap. J., 295, 485.

Seab, C.G., and Snow, T.P. 1989, On the size distribution of newly formed grains in red supergiant atmospheres, Ap. J., 347, 479.

Seab, C.G., Snow, T.P., and Joseph, C.L. 1981, Ultraviolet extinction curves derived from IUE data, Ap. J., 246, 788.

Seaton, M.J. 1979, Extinction of NGC 7027, M.N.R.A.S., 187, 785.

Seggewiss, W. 1990, Search for chromospheric Mg II emission in Ap-type stars, A. & A., 229, 186.

Sekiguchi, K., and Anderson, K.S. 1987, Mass to line-strength relations from IUE spectra of early-type stars, A.J., 94, 129.

Sekiguchi, K., and Anderson, K.S. 1987, The initial mass function for early-type stars in starburst galaxies, A.J., 94, 644.

Sembay, S., Coe, M.J., Clement, R., Dean, A.J., Hanson, C.G., Ferrari-Toniolo, M., Persi, P., Spinoglio, L., Bassani, L., Di Cocco, G., Macdougall, J.R., and Elsmore, B. 1985, IRAS observations of MKN 501 with quasi-simultaneous observations at radio, near-infrared, and ultraviolet wavelengths, M.N.R.A.S., 216, 121.

Shafter, A.W., and Szkody, P. 1984, Radial velocity studies of cataclysmic binaries. II. The ultrashort period dwarf nova T Leonis, Ap. J., 276, 305.

- Shafter, A.W., Szkody, P., Liebert, J., Penning, W.R., Bond, H.E., and Grauer, A.D. 1985, TT Arietis: the low state, Ap. J., 290, 707.
- Shaver, P.A., Boksenberg, A., and Robertson, J.G. 1982, Spectroscopy of the QSO pair Q0028+003/Q0029+003, Ap. J., 261, L7.
- Shaw, J.S., and Guinan, E.F. 1989, The VV Cephei star V641 Cassiopeiae, A.J., 97, 836.
- Shemansky, D.E., and Judge, D.L. 1988, Evidence for change in particle excitation of Jupiter's atmosphere 1968-1979, Jour. Geophys. Res., 93, 21.
- Shields, G.A., Aller, L.H., and Keyes, C.D. 1981, The optical and ultraviolet spectrum of the planetary nebula NGC 2440, Ap. J., 248, 569.
- Shipman, H.L., and Greenstein, J.L. 1983, Iron and magnesium in the White Dwarf GD 40: a test of diffusion theory, Ap. J., 266, 761.
- Shore, S.N., and Brown, D.N. 1987, IUE observations of the broad continuum feature at 1400 Å in the silicon and related stars, A. & A., 184, 219.
- Shore, S.N., and Brown, D.N. 1988, Colliding stellar winds in the eclipsing Wolf-Rayet binary V444 Cygni, Ap. J., 334, 1021.
- Shore, S.N., and Brown, D.N. 1990, Magnetically controlled circumstellar matter in the helium-strong stars, Ap. J., 365, 665.
- Shore, S.N., Brown, D.N., Bopp, B.W., Robinson, C.R., Sanduleak, N., and Feldman, P.D. 1990, A multiwavelength study of the Carlson-Henize sample of early-type galactic extreme emission-line stars, Ap. J. Suppl., 73, 461.
- Shore, S.N., Brown, D.N., and Sonneborn, G. 1987, The sn stars: magnetically controlled stellar winds among the helium-weak stars, A.J., 94, 737.
- Shore, S.N., Brown, D.N., Sonneborn, G., and Gibson, D.M. 1987, The rapidly oscillating Ap stars as a test of stellar chromospheric heating mechanisms, A. & A., 182, 285.

- Shore, S.N., Brown, D.N., Sonneborn, G., Landstreet, J.D., and Bohlender, D.A. 1990, The discovery of magnetically controlled circumstellar matter in the helium-weak stars HD 5737 and HD 79158, *Ap. J.*, 348, 242.
- Shore, S.N., and Sanduleak, N. 1983, The extreme LMC supergiant HD 38489: an optical and ultraviolet study, *Ap. J.*, 273, 177.
- Shore, S.N., and Sanduleak, N. 1984, The early-type strong emission-line supergiants of the Magellanic Clouds: a spectroscopic zoology, *Ap. J. Suppl.*, 55, 1.
- Shore, S.N., Sanduleak, N., and Allen, D.A. 1987, The peculiar early-type emission line supergiant S18/SMC: an optical and ultraviolet study, *A. & A.*, 176, 59.
- Shull, J.M., Van Steenberg, M., and Seab, C.G. 1983, Observationally determined Fe II oscillator strengths, *Ap. J.*, 271, 408.
- Shull, J.M., and Van Steenberg, M.E. 1985, Galactic interstellar abundance surveys with IUE. I. Neutral hydrogen, *Ap. J.*, 294, 599.
- Shure, M.A., Herter, T., and Houck, J.R. 1983, OIV temperature determination for NGC 7662, *Ap. J.*, 274, 646.
- Siemiginowska, A., and Dobrzycki, A. 1990, Accretion disk in the high-redshift quasar HS1700+6416, *A. & A.*, 231, L1.
- Silva, A.M., and Mirabel, I.F. 1988, Gaseous outbursts in comet P/Halley. A model for the dissociation of the OH radical, *A. & A.*, 201, 350.
- Simon, T. 1984, On the dispersion in brightness of far-ultraviolet emission lines of cool giant stars, *Ap. J.*, 279, 738.
- Simon, T. 1986, A search for rotational modulation of the ultraviolet spectra of Psi 3 Piscium and 31 Comae Berenices, *A.J.*, 91, 1233.
- Simon, T. 1986, Stellar chromospheres, coronae, and winds (invited review), *Astrophys. Sp. Sci.*, 118, 209.

Simon, T. 1990, IUE observations of rapidly rotating low-mass stars in young clusters: the relation between chromospheric activity and rotation, Ap. J., 359, L51.

Simon, T., Cash, W., and Snow, T.P. 1985, Ultraviolet and X-ray observations of NGC 2264, Ap. J., 293, 542.

Simon, T., and Drake, S.A. 1989, The evolution of chromospheric activity of cool giant and subgiant stars, Ap. J., 346, 303.

Simon, T., Fekel, F.C., and Gibson, D.M. 1985, AY Ceti: a flaring, spotted star with a hot companion, Ap. J., 295, 153.

Simon, T., and Fekel, Jr., F.C. 1987, The dependence of ultraviolet chromospheric emission upon rotation among late-type stars, Ap. J., 316, 434.

Simon, T., Herbig, G., and Boesgaard, A.M. 1985, The evolution of chromospheric activity and the spin-down of solar-type stars, Ap. J., 293, 551.

Simon, T., Kelch, W.L., and Linsky, J.L. 1980, Outer atmospheres of cool stars. VI. Models for Epsilon Eridani based on IUE spectra of C II, Mg II, Si II and Si III, Ap. J., 237, 72.

Simon, T., and Linsky, J.L. 1980, IUE ultraviolet spectra and chromospheric models of HR 1099 and UX Arietis, Ap. J., 241, 759.

Simon, T., Linsky, J.L., and Schiffer III, F.H. 1980, IUE spectra of a flare in the RS Canum Venaticorum-type system UX Arietis, Ap. J., 239, 911.

Simon, T., Linsky, J.L., and Stencel, R.E. 1982, The reality of a boundary in the H-R diagram between late-type stars with and without big-T outer atmospheres, Ap. J., 257, 225.

Simon, T., and Sonneborn, G. 1987, The ultraviolet variability of AY Ceti, A.J., 94, 1657.

Simon, T., Vrba, F.J., and Herbst, W. 1990, The ultraviolet and visible light variability of BP Tauri: possible clues for the origin of T tauri star activity, A.J., 100, 1957.

Sion, E.M. 1985, On the nature of the UX Ursae Majoris-type nova-like variables: CPD -48 1577, Ap. J., 292, 601.

Sion, E.M. 1985, On the observed properties and long-term structure and evolution of white dwarfs in cataclysmic variables, Ap. J., 297, 538.

Sion, E.M., Bruhweiler, F.C., Mullan, D., and Carpenter, K. 1989, Discovery of a cool expanding shell at -1200 kilometers per second around V471 Tauri, Ap. J., 341, L17.

Sion, E.M., and Guinan, E.F. 1983, The hot DO white dwarf HD 149499 B: Einstein redshift of a DB progenitor with carbon features, Ap. J., 265, L87.

Sion, E.M., Guinan, E.F., and Wesemael, F. 1982, A spectrophotometric analysis of the hot helium-rich white dwarf HD 149499 B, Ap. J., 255, 232.

Sion, E.M., Leckenby, H.J., and Szkody, P. 1990, The discovery of strong neutral atomic carbon absorption lines in the spectrum of the DAQZ5 white dwarf in the ultra-short-period dwarf nova WZ Sagittae during quiescence, Ap. J., 364, L41.

Sion, E.M., Liebert, J., and Wesemael, F. 1985, Detection and analysis of photospheric CNO features in the ultraviolet spectrum of the hot DO white dwarf PG 1034+001, Ap. J., 292, 477.

Sion, E.M., Starrfield, S.G., Van Steenberg, M.E., Sparks, W., Truran, J.W., and Williams, R.E. 1986, High-resolution IUE observations of the line of sight to nova V693 Corona Australinae 1981, A.J., 92, 1145.

Sion, E.M., Wesemael, F., and Guinan, E.F. 1984, IUE spectrophotometry of the DA4 primary in the short-period white dwarf-red dwarf spectroscopic binary Case 1, Ap. J., 279, 758.

Sitko, M.L. 1981, Spectral energy distributions of hot stars with circumstellar dust, Ap. J., 247, 1024.

Sitko, M.L. 1983, Molecular emission bands in the ultraviolet spectrum of the Red Rectangle star HD 44179, Ap. J., 265, 848.

Sitko, M.L. 1990, Multifrequency observations of the optically active radio-quiet quasar GQ Comae. I. Ultraviolet continuum and line variability, Ap. J. Suppl., 72, 777.

Sitko, M.L., and Savage, B.D. 1980, Ultraviolet, visual, and infrared observations of the peculiar Be star HD 45677, Ap. J., 237, 82.

Sitko, M.L., Savage, B.D., and Meade, M.R. 1981, Ultraviolet observations of hot stars with circumstellar dust shells, Ap. J., 246, 161.

Sitko, M.L., Simon, T., and Meade, M.R. 1984, Ultraviolet spectroscopy of hot young stars with infrared excesses: NGC 2264-W46, W90, and W100, P.A.S.P., 96, 54.

Skullen, I., Fernley, J.A., Jameson, R.F., Lynas-Gray, A.E., and Longmore, A.J. 1989, The absolute magnitudes of RR Lyrae stars. II. DX Delphini, M.N.R.A.S., 241, 281.

Skinner, T.E., DeLand, M.T., Ballester, G.E., Coplin, K.A., Feldman, P.D., and Moos, H.W. 1988, Temporal variation of the Jovian H I Lyman alpha emission (1979-1986), Jour. Geophys. Res., 93, 29.

Skinner, T.E., and Durrance, S.T. 1986, Neutral oxygen and sulfer densities in the Io Torus, Ap. J., 310, 966.

Skinner, T.E., Durrance, S.T., Feldman, P.D., and Moos, H.W. 1983, Temporal variation of the Jovian HI Lyman-alpha emission (1979-1982), Ap. J., 265, L23.

Skinner, T.E., Durrance, S.T., Feldman, P.D., and Moos, H.W. 1984, IUE observations of longitudinal and temporal variations in the Jovian auroral emission, Ap. J., 278, 441.

Skinner, T.E., and Moos, H.W. 1984, Comparison of the Jovian north and south pole aurorae using the IUE observatory, Geophys. Res. Lett., 11, 1107.

Skuppin, R., Bianchi, L., de Boer, K.S., and Grewing, M. 1987, Interstellar absorption lines in the spectra of Theta Crateris and 14 Canum Venaticorum, A. & A., 177, 228.

Slettebak, A., and Carpenter, K.G. 1983, Ultraviolet spectroscopic observations of some Be stars of later type and A-F type shell stars, Ap. J. Suppl., 53, 869.

Slovak, M.H. 1981, A photometric study of the old nova V603 Aquilae, Ap. J., 248, 1059.

Smith, L.J., and Hartquist, T.W. 1980, IUE observations of N V, a diagnostic of hot interstellar gas, M.N.R.A.S., 192, 73P.

Smith, L.J., Lloyd, C., and Walker, E.N. 1985, UV and optical observations of variability in the WR+compact candidate HD 96548, A. & A., 146, 307.

Smith, L.J., Pettini, M., Dyson, J.E., and Hartquist, T.W. 1984, The remarkable kinematics of the WR wind-blown bubble RCW 58, M.N.R.A.S., 211, 679.

Smith, L.J., and Willis, A.J. 1982, The carbon and nitrogen abundances in WN and WC Wolf-Rayet stars, M.N.R.A.S., 201, 451.

Smith, L.J., and Willis, A.J. 1983, UV and visible spectrophotometry of nine LMC Wolf-Rayet stars, A. & A. Suppl., 54, 229.

Smith, L.J., Willis, A.J., and Wilson, R. 1980, IUE observations of interstellar SiIV and CIV line observed in the spectra of Wolf-Rayet stars, M.N.R.A.S., 191, 339.

Snijders, M.A.J., Batt, T.J., Roche, P.F., Seaton, M.J., Morton, D.C., Spoelstra, T.A.T., and Blades, J.C. 1987, Nova Aquilae 1982, M.N.R.A.S., 228, 329.

Snijders, M.A.J., Batt, T.J., Seaton, M.J., Blades, J.C., and Morton, D.C. 1984, Nova Aquilae 1982 - a short report, M.N.R.A.S., 211, 7P.

Snijders, M.A.J., Boksenberg, A., Barr, P., Sanford, P.W., Ives, J.C., and Penston, M.V. 1979, Ultraviolet and X-ray observations of the BL Lac object MK 501, M.N.R.A.S., 189, 873.

Snijders, M.A.J., Boksenberg, A., Penston, M.V., and Sargent, W.L.W. 1982, IUE observations of the BL Lac object AO 0235+164, M.N.R.A.S., 201, 801.

Snijders, M.A.J., Netzer, H., and Boksenberg, A. 1986, Detection of broad ultraviolet Fe II lines in the spectrum of NGC 1068, M.N.R.A.S., 222, 549.

Snijders, M.A.J., Pettini, M., and Boksenberg, A. 1981, The ultraviolet spectrum of the high redshift QSO B2 1225+31, Ap. J., 245, 386.

- Snow, Jr., T.P., Buss, Jr., R.H., Gilra, D.P., and Swings, J.P. 1987, Extinction and abundance properties of Alpha Scorpii circumstellar grains, Ap. J., 321, 921.
- Snow, Jr., T.P., and Seab, C.G. 1980, An anomalous ultraviolet extinction curve in the Taurus dark cloud, Ap. J., 242, L83.
- Snow, T.P., and Joseph, C.L. 1981, Interstellar abundances derived from IUE data. I. Silicon depletions toward reddened stars, A.J., 86, 1916.
- Snow, T.P., and Joseph, C.L. 1985, A study of depletions within the Rho Ophiuchi cloud based on IUE observations of HD 147889, Ap. J., 288, 277.
- Snow, T.P., and Witt A. 1989, Interstellar gas and large grains toward HD 38087, Ap. J., 342, 295.
- Soderblom, D.R., and Clements, S.D. 1987, Chromospheric and transition-region emission from young solar-type stars in clusters, kinematic groups, and the field, A.J., 93, 920.
- Sofia, U.J., Bruhweiler, F.C., and Sofia, S. 1989, Ultraviolet variability of the solar analogue star Alpha Centauri A, Jour. Geophys. Res., 94, 9117.
- Sonneborn, G., Altner, B., and Kirshner, R.P. 1987, The progenitor of SN 1987A: spatially resolved ultraviolet spectroscopy of the supernova field, Ap. J., 323, L35.
- Sonneborn, G., Grady, C.A., Wu, C.-C., Hayes, D.P., Guinan, E.F., Barker, P.K., and Henrichs, H.F. 1988, Mass loss in a B2 IIIe star: Omega Orionis 1978-1984, Ap. J., 325, 784.
- Sorrell, W.H. 1989, Modelling the dust grains around the peculiar Be star HD 45677, M.N.R.A.S., 241, 89.
- Sorrell, W.H. 1990, The lambda 2175-A feature from irradiated graphitic particles, M.N.R.A.S., 243, 570.
- Sparks, W.B., and Cameron, A.C. 1988, A relation between UV excess and the interstellar medium in elliptical galaxies?, M.N.R.A.S., 232, 215.
- Spite, M., Caloi, V., and Spite, F. 1981, Ultraviolet observations of two extreme population II stars: detection of chromospheric emission and mass loss, A. & A., 103, L11.

St-Louis, N., Smith, L.J., Stevens, I.R., Willis, A.J., Garmany, C.D., and Conti, P.S. 1989, IUE observations of variability in the WN6 star HD 192163, *A. & A.*, 226, 249.

Stahl, O., and Wolf, B. 1986, New observational results of the LMC-S Dor variable R 127 during outburst, *A. & A.*, 154, 243.

Stahl, O., and Wolf, B. 1987, The peculiar emission-line supergiant HD 37836, *A. & A.*, 181, 293.

Stahl, O., Wolf, B., Klare, G., Cassatella, A., Krautter, J., Persi, P., and Ferrari-Toniolo, M. 1983, R 127: an S Dor type variable intermediate between Of and WN, *A. & A.*, 127, 49.

Stahl, O., Wolf, B., Klare, G., Juttner, A., and Cassatella, A. 1990, Observations of the new Luminous Blue Variable R110 of the Large Magellanic Cloud during an F star-phase, *A. & A.*, 228, 379.

Stahl, O., Wolf, B., Leitherer, C., Zickgraf, F.-J., Krautter, J., and de Groot, M. 1984, Variable blue supergiants in the Large Magellanic Cloud: R 84, R 85, and R 99, *A. & A.*, 140, 459.

Stahl, O., Wolf, B., and Zickgraf, F.-J. 1987, Photometry and spectroscopy of the eclipsing P Cygni star R81 in the Large Magellanic Cloud, *A. & A.*, 184, 193.

Stahl, O., Wolf, B., Zickgraf, F.-J., Bastian, U., de Groot, M.J.H., and Leitherer, C. 1983, R 66(Aeq): an LMC B supergiant with a massive cool and dusty wind, *A. & A.*, 120, 287.

Stalio, R., and Franco, M.L. 1980, BD +33 2642: a galactic halo blue star observed by IUE, *A. & A.*, 84, 369.

Stanghellini, L., Starrfield, S., and Cox, A.N. 1990, The cause of the pulsations of the white dwarf component in V471 Tau, *A. & A.*, 233, L13.

Starrfield, S.G., Cox, A.N., Hodson, S.W., and Pesnell, W.D. 1983, The discovery of nonradial instability strips for hot, evolved stars, *Ap. J.*, 268, L27.

Stecher, T.P., Maran, S.P., and Gull, T.R. 1982, Luminosities and masses for three central stars of planetary nebulae in the Magellanic Clouds from ultraviolet spectroscopy with the IUE, *Ap. J.*, 262, L41.

Stefl, S. 1985, Properties and nature of Be stars. 12. The UV line spectrum of KX And - is there a hot primary?, Bull. Astron. Ins. Czech., 36, 313.

Stencel, R.E. 1984, Changes in the ultraviolet spectrum of EG Andromedae, Ap. J., 281, L75.

Stencel, R.E., Carpenter, K.G., and Hagen, W. 1986, Ultraviolet and infrared observations of stars with "quenched" chromospheres and the nature of mass loss, Ap. J., 308, 859.

Stencel, R.E., and Chapman, R.D. 1981, The 1979-1980 eclipse of Zeta Aurigae. II. The emission spectrum, Ap. J., 251, 597.

Stencel, R.E., Hopkins, J.L., Hagen, W., Fried, R., Schmidtke, P.C., Kondo, Y., and Chapman, R.D. 1984, The 1982 eclipse of 31 Cygni, Ap. J., 281, 751.

Stencel, R.E., Kondo, Y., Bernat, A.P., and McCluskey, G.E. 1979, IUE observations of 32 Cygni: the effects of the B star within the upper chromosphere of a late-type supergiant, Ap. J., 233, 621.

Stencel, R.E., Linsky, J.L., Brown, A., Jordan, C., Carpenter, K.G., Wing, R.F., and Czyzak, S. 1981, Density sensitive CII lines in cool stars of low gravity, M.N.R.A.S., 196, 47P.

Stencel, R.E., Michalitsianos, A.G., Kafatos, M., and Boyarchuk, A.A. 1982, Ultraviolet observations of the 1980 eclipse of the symbiotic star CI Cygni, Ap. J., 253, L77.

Stencel, R.E., and Mullan, D.J. 1980, Detection of mass loss in stellar chromospheres, Ap. J., 238, 221.

Stencel, R.E., Mullan, D.J., Linsky, J.L., Basri, G.S., and Worden, S.P. 1980, Outer atmospheres of cool stars. VII. High resolution, absolute flux profiles of the MgII h and k lines in stars of spectral types F8 to M5, Ap. J. Suppl., 44, 383.

Stencel, R.E., and Sahade, J. 1980, IUE observations of the peculiar M Giant HD 4174, Ap. J., 238, 929.

Stepien, K., and Dominiczak, R. 1989, Effective temperatures of Ap stars, A. & A., 219, 197.

Stern, R.A., and Skumanich, A. 1983, Rapid rotation and stellar activity in the triple system HD 165590, Ap. J., 267, 232.

- Stern, S.A., Festou, M.C., Van Santvoort, J., and Buratti, B.J. 1990, The first UV spectrum of a Uranian satellite: IUE observations of Oberon from 2650-3200 Å, *A.J.*, 100, 1676.
- Stern, S.A., Skinner, T.E., Brosch, N., van Santvoort, J., and Trafton, L.M. 1989, The first UV spectrum of Triton: IUE observations from 2600 to 3200 Å, *Ap. J.*, 341, L107.
- Stern, S.A., Skinner, T.E., Brosch, N., Van Santvoort, J., and Trafton, L.M. 1989, The UV spectrum of Pluto-Charon: IUE observations from 2600 to 3100 Å, *Ap. J.*, 342, 533.
- Sternberg, A. 1989, Ultraviolet fluorescent molecular hydrogen emission, *Ap. J.*, 347, 863.
- Stevens, I.R., and Willis, A.J. 1988, The expected X-ray luminosity of HD 50896, *M.N.R.A.S.*, 234, 783.
- Stickland, D.J. 1979, The UV spectrum of the possible radio star HD 26676, *A. & A.*, 77, 359.
- Stickland, D.J. 1987, Spectroscopic binary orbits from ultraviolet radial velocities. Paper 1: Iota Orionis, Observatory, 107, 5.
- Stickland, D.J. 1987, Spectroscopic binary orbits from ultraviolet radial velocities. Paper 2: Plaskett's Star, Observatory, 107, 68.
- Stickland, D.J. 1989, Spectroscopic binary orbits from ultraviolet radial velocities. Paper 5: 29 (UW) Canis Majoris, Observatory, 109, 74.
- Stickland, D.J., Bromage, G.E., Budding, E., Burton, W.M., Howarth, I.D., Jameson, R., Sherrington, M.R., and Willis, A.J. 1984, Ultraviolet, optical and infrared observations of the Wolf-Rayet contact-eclipsing binary CQ Cephei, *A. & A.*, 134, 45.
- Stickland, D.J., Cassatella, A., and Ponz, D. 1982, Mira B, *M.N.R.A.S.*, 199, 1113.
- Stickland, D.J., and Dworetsky, M.M. 1980, Does Phi Herculis have a corona?, *M.N.R.A.S.*, 191, 33P.
- Stickland, D.J., and Harmer, D.L. 1978, The discovery of a hot companion to HR 8752, *A. & A.*, 70, L53.

Stickland, D.J., Kelly, B.D., Cooke, J.A., Coulson, I., Engelbrecht, C., Kilkenny, D., and Spencer-Jones, J. 1984, RZ Gru - a UX UMa 'disc star', M.N.R.A.S., 206, 819.

Stickland, D.J., and Lambert, D.L. 1981, A high resolution IUE spectrum of the G0-G5 Ia supergiant HR 8752, A. & A., 102, 296.

Stickland, D.J., and Lloyd, C. 1990, Spectroscopic binary orbits from ultraviolet radial velocities. Paper 6: Gamma-2 Velorum, Observatory, 110, 1.

Stickland, D.J., Penn, C.J., Seaton, M.J., Snijders, M.A.J., and Storey, P.J. 1981, Nova Cygni 1978 - I. The nebular phase, M.N.R.A.S., 197, 107.

Stickland, D.J., Pike, C.D., Lloyd, C., and Howarth, I.D. 1987, A study of the massive O-type binary Iota Orionis, A. & A., 184, 185.

Stickland, D.J., and Sanner, F. 1981, Far UV observations of late K and M type stars, M.N.R.A.S., 197, 791.

Stickland, D.J., and Williams, D. 1983, Psi3 Piscium and the rotation-activity connexion, Observatory, 103, 58.

Stoner, R., and Ptak, R. 1984, C IV lambda 1550 emission profiles in IUE spectra of Seyfert 1 galaxies, Ap. J., 280, 516.

Stoner, R., and Ptak, R. 1985, Evidence for supermassive stars in three Seyfert galaxy nuclei from IUE spectra, Ap. J., 297, 611.

Stoner, R., Ptak, R., and Gregory, S. 1984, The variable component of the NGC 4151 IUE spectrum: evidence for an expanding spherical emission shell, Ap. J., 285, 69.

Strickland, D.J., and Lloyd, C. 1988, Spectroscopic binary orbits from ultraviolet radial velocities. Paper 4: AO Cassiopeiae, Observatory, 108, 174.

Sun, W.-H., and Malkan, M.A. 1989, Fitting improved accretion disk models to the multiwavelength continua of quasars and active galactic nuclei, Ap. J., 346, 68.

Suntzeff, N.B., and Bouchet, P. 1990, The bolometric light curve of SN 1987A. I. Results from ESO and CTIO U to Q0 photometry, *A.J.*, 99, 650.

Surdej, J., and Heck, A. 1982, The far-UV spectrum of the low-excitation planetary nebula HD 138403, *A. & A.*, 116, 80.

Szkody, P. 1981, IUE observations of eight dwarf novae: a study of the outburst cycle from 0.12 to 3.5 microns, *Ap. J.*, 247, 577.

Szkody, P. 1981, Stepanian's star: the energy distribution reveals a nontypical cataclysmic variable, *P.A.S.P.*, 93, 456.

Szkody, P. 1982, Ultraviolet comparisons of normal outbursts and a supermaximum in two dwarf novae, *Ap. J.*, 261, 200.

Szkody, P. 1985, Multiwavelength observations of eleven cataclysmic variables, *A.J.*, 90, 1837.

Szkody, P., and Crosa, L. 1981, Lanning 10 and 33: the X-ray, UV, and optical fluxes, *Ap. J.*, 251, 620.

Szkody, P., Downes, R., and Mateo, M. 1988, White dwarfs in cataclysmic variables: low state IUE observations of V794 Aquilae, MR Serpentis, and AN Ursae Majoris, *P.A.S.P.*, 100, 362.

Szkody, P., Downes, R.A., and Mateo, M. 1990, IUE and optical data during the low state of H0538+608 (BY Camelopardalis), *P.A.S.P.*, 102, 1310.

Szkody, P., and Downs, P.A. 1982, IUE and optical observations of MV Lyrae at intermediate and low states, *P.A.S.P.*, 94, 328.

Szkody, P., Howell, S.B., and Kennicutt, R. 1986, X-ray, UV, and optical observations of the dwarf nova BV Puppis, *P.A.S.P.*, 98, 1151.

Szkody, P., Liebert, J., and Panek, R.J. 1985, IUE results on the AM Herculis stars CW 1103, E1114, and PG 1550, *Ap. J.*, 293, 321.

- Szkody, P., and Mateo, M. 1984, An unprecedeted UV/optical flare in TV Columbae, Ap. J., 280, 729.
- Szkody, P., and Mateo, M. 1986, Z Camelopardalis: outburst P Cygni profiles and quiescent continuum, Ap. J., 301, 286.
- Szkody, P., and Mateo, M. 1988, Analysis of IUE data on V426 Ophiuchi: outburst and orbital variability, P.A.S.P., 100, 1111.
- Szkody, P., Osborne, J., and Hassall, B.J.M. 1988, Exosat and IUE observations of SW UMa during superoutburst, Ap. J., 328, 243.
- Szkody, P., Raymond, J.C., and Capps, R.W. 1982, The low state of AM Herculis: observations from 0.12 to 10 microns, Ap. J., 257, 686.
- Szkody, P., and Shafter, A.W. 1983, A multiwavelength study of the short-period cataclysmic variable V442 Ophiuchi, P.A.S.P., 95, 509.
- Szkody, P., Shafter, A.W., and Cowley, A.P. 1984, IR Geminorum: indications of a massive white dwarf and a heated secondary in this new SU Ursae Majoris cataclysmic variable, Ap. J., 282, 236.
- Tadhunter, C.N., Perez, E., and Fosbury, R.A.E. 1986, An ultraviolet and optical study of the broad-line radio galaxy 3C 382, M.N.R.A.S., 219, 555.
- Takada-Hidai, M., Sadakane, K., and Jugaku, J. 1986, The abundance of gallium in B-type chemically peculiar stars, Ap. J., 304, 425.
- Takalo, L.O., and Nousek, J.A. 1988, Phase-resolved IUE observations of AM Herculis system E1405-451, Ap. J., 327, 328.
- Talavera, A., and Gomez de Castro, A.I. 1987, The UV high resolution spectrum of A-type supergiants, A. & A., 181, 300.
- Tanzi, E.G., Barr, P., Bouchet, P., Chiappetti, L., Cristiani, S., Falomo, R., Giommi, P., Maraschi, L., and Treves, A. 1986, Multifrequency observations of the blazar PKS 0537-441 in a moderately active state, Ap. J., 311, L13.

Tanzi, E.G., Tarenghi, M., Treves, A., Howarth, I.D., Willis, A.J., and Wilson, R. 1980, Ultraviolet observations of Am Hercules, *A. & A.*, 83, 270.

Tarafdar, S.P. 1983, Molecules in celestial objects - IV. IUE observation of CO lines towards Be stars with low reddening, *M.N.R.A.S.*, 204, 1081.

Tarafdar, S.P., and Agrawal, P.C. 1984, IUE observation of RS CVn-like binary Sigma Corona Borealis, *M.N.R.A.S.*, 207, 809.

Tarafdar, S.P., and Krishna Swamy, K.S. 1981, Molecules in celestial objects - II. IUE observations of CO towards Psi Persei (B5 Ve), *M.N.R.A.S.*, 196, 67.

Tarafdar, S.P., and Krishna Swamy, K.S. 1982, Molecules in celestial objects. III. Study of CO in interstellar diffuse clouds, *M.N.R.A.S.*, 200, 431.

Tarafdar, S.P., Krishna Swamy, K.S., and Vardya, M.S. 1980, Molecules in celestial objects - I. Circumstellar CO in 9 Cephei (B2Ib), *M.N.R.A.S.*, 192, 417.

Tarenghi, M., Tanzi, E.G., Treves, A., Glencross, W.M., Howarth, I., Hammerschlag-Hensberge, G., van den Heuval, E.P.J., Lamers, H.J.G.L.M., Burger, M., and Whitelock, P.A. 1981, UV and optical observations of X-ray sources in the Magellanic Clouds, *A. & A. Suppl.*, 43, 353.

Taylor, A.R., Waters, L.B.F.M., Lamers, H.J.G.L.M., Persi, P., and Bjorkman, K.S. 1987, Radio detection of the Be star Psi Persei, *M.N.R.A.S.*, 228, 811.

Teays, T.J., Schmidt, E.G., Fracassini, M., and Pasinetti Fracassini, L.E. 1989, The chromosphere of Beta Cassiopeiae, *Ap. J.*, 343, 916.

Tektunali, H.G. 1989, The ultraviolet spectrum of the binary system KS Persei (HD 30353), *Astrophys. Sp. Sci.*, 158, 223.

The, P.S., Wesselius, P.R., Tjin a Djie, H.R.E., and Steenman, H. 1986, Studies of the Chamaeleon star-forming region. II. The pre-main-sequence stars HD 97048 and HD 97300, *A. & A.*, 155, 347.

- Thompson, G. I., Nandy, K., Morgan, D.H., and Houziaux, L. 1988, Effective temperatures and radii of Small Magellanic Cloud supergiants, M.N.R.A.S., 230, 429.
- Thompson, R.W., Turnrose, B.E., and Bohlin, R.C. 1982, IUE data reduction, A. & A., 107, 11.
- Thuan, T.X. 1984, Ultraviolet observations of starburst and mini-Seyfert galactic nuclei, Ap. J., 281, 126.
- Tjin A Djie, H.R.E., Remijn, L., and The, P.S. 1984, A study of the Herbig Ae-type stars UX Ori and CD -44 3318 based on IUE spectra, and on visual and infrared photometry, A. & A., 134, 273.
- Tjin A Djie, H.R.E., The, P.S., Hack, M., and Selvelli, P.L. 1982, The variable shell star HR 5999. VI. Strong chromospheric and transition region emission lines in the ultraviolet spectrum of a Herbig Ae star, A. & A., 106, 98.
- Tobin, W. 1986, Low-resolution IUE observations of four unreddened, 11th magnitude B stars at high galactic latitudes, A. & A., 155, 326.
- Tobin, W., and Kaufmann, J.P. 1984, Analysis of the three high-velocity B stars HD 125924, 165955 and CPD -72 1184, M.N.R.A.S., 207, 369.
- Tomasako, M.G., and Karkoschka, E. 1986, Observations of the limb darkening of Jupiter at ultraviolet wavelengths and constraints on the properties and distribution of stratospheric aerosols, Icarus, 65, 218.
- Torres-Peimbert, S., Peimbert, M., and Daltabuit, E. 1980, IUE and visual observations of the Orion Nebula and IC 418: the carbon abundance, Ap. J., 238, 133.
- Torres-Peimbert, S., Peimbert, M., and Pena, M. 1990, Planetary nebulae with a high degree of ionization: NGC 2242 and NGC 4361, A. & A., 233, 540.
- Torres-Peimbert, S., and Pena, M. 1981, Ultraviolet observations of planetary nebulae. NGC 6572, NGC 5315 and BD+30 3639, Rev. Mex. Astron. Astrof., 6, 301.
- Torres, A.V. 1987, Ultraviolet interstellar extinction toward NGC 6530 and the intrinsic energy distribution of 9 Sagittarii and HD 165052, Ap. J., 322, 949.

Torres, A.V., Conti, P.S., and Massey, P. 1986, Spectroscopic studies of Wolf-Rayet stars. III. The WC subclass, Ap. J., 300, 379.

Treves, A., Belloni, T., Bouchet, P., Chiappetti, L., Falomo, R., Maraschi, L., and Tanzi, E.G. 1988, The ultraviolet-optical-infrared energy distribution of LMC X-3: observation of an accretion disk around a black hole, Ap. J., 335, 142.

Treves, A., Belloni, T., Corbet, R.H.D., Ebisawa, K., Falomo, R., Makino, F., Makishima, K., Maraschi, L., Miyamoto, S., and Tanzi, E.G. 1990, Simultaneous X-ray, ultraviolet, and optical observations of LMC X-3, Ap. J., 364, 266.

Treves, A., Bonnelli, G., Chiappetti, L., Falomo, R., Maraschi, L., Tagliaferri, G., and Tanzi, E.G. 1990, X-ray and ultraviolet observations of the Seyfert galaxy MCG 8-11-11, Ap. J., 359, 98.

Treves, A., Bouchet, P., Chiappetti, L., Ciapi, A., Falomo, R., Maraschi, L., and Tanzi, E.G. 1988, The X-ray to infrared energy distribution of the quasar PG 0026+129, Ap. J., 330, 178.

Treves, A., Chiappetti, L., Tanzi, E., Tarenghi, M., Gursky, H., Dupree, A.K., Hartmann, L.W., Raymond, J., Davis, R.J., Black, J., Matilsky, T.A., Vanden Bout, P., Sanner, F., Pollard, G., Sanford, P.W., Joseph, R.D., and Meikle, W.P.S. 1980, Ultraviolet, X-ray, and infrared observations of HDE 226868 = Cygnus X-1, Ap. J., 242, 1114.

Treves, A., Drew, J., Falomo, R., Maraschi, L., Tanzi, E.G., and Wilson, R. 1985, UV and optical observations of PG 1351+64, a bright Seyfert galaxy or a low-luminosity QSO, M.N.R.A.S., 216, 529.

Treves, A., Morini, M., Chiappetti, L., Fabian, A., Falomo, R., Maccagni, D., Maraschi, L., Tanzi, E.G., and Tagliaferri, G. 1989, Simultaneous X-ray, ultraviolet, and optical observations of the BL Lacertae object PKS 2155-304, Ap. J., 341, 733.

Tripp, T.M., Green, R.F., and Bechtold, J. 1990, IUE observations of PG 1115+080: the He I Gunn-Peterson test and a search for the lensing galaxy, Ap. J., 364, L29.

Turnshek, D.A., Bohlin, R.C., Williamson, II, R.L., Lupie, O.L., Koornneef, J., and Morgan, D.H. 1990, An atlas of Hubble Space Telescope photometric, spectrophotometric, and polarimetric calibration objects, A.J., 99, 1243.

Turnshek, D.A. , Foltz, C.B. , Weymann, R.J. , Lupie, O.L. , McMahon, R.G. , and Peterson, B.M. 1985, Observations of the low-redshift broad absorption line QSO PG 1700+518: limits on the fraction of QSOs with broad absorption lines at low redshift and the physical conditions in the broad absorption line region, Ap. J. , 294, L1.

Turnshek, D.A. , and Grillmair, C.J. 1986, More low-redshift broad absorption line QSOs, Ap. J. , 310, L1.

Ulla, A.M. , and Solheim, J.-E. 1990, IUE-spectra of the four interacting binary white dwarf stars: AM CVn, PG 1346+082, V803 Cen, and GP Com. A comparative study, Astrophys. Sp. Sci. , 169, 189.

Ulrich, M.-H. 1988, Far-ultraviolet absorption lines in active galaxies, M.N.R.A.S. , 230, 121.

Ulrich, M.-H. , and Boisson, C. 1983, The ultraviolet spectrum of the Seyfert galaxies NGC 3516 and NGC 5548, Ap. J. , 267, 515.

Ulrich, M.-H. , Boksenberg, A. , Bromage, G. , Carswell, R. , Elvius, A. , Gabriel, A. , Gondhalekar, P.M. , Lind, J. , Lindegren, L. , Longair, M.S. , Penston, M.V. , Perryman, M.A.C. , Pettini, M. , Perola, G.C. , Rees, M. , Sciamma, D. , Snijders, M.A.J. , Tanzi, E. , Tarenghi, M. , and Wilson, R. 1980, Detailed ultraviolet observations of the quasar 3C273 with IUE, M.N.R.A.S. , 192, 561.

Ulrich, M.-H. , Boksenberg, A. , Bromage, G.E. , Clavel, J. , Elvius, A. , Penston, M.V. , Perola, G.C. , Pettini, M. , Snijders, M.A.J. , Tanzi, E.G. , and Tarenghi, M. 1984, Detailed observations of NGC 4151 with IUE - III. Variability of the strong emission lines from 1978 February to 1980 May, M.N.R.A.S. , 206, 221.

Ulrich, M.-H. , Courvoisier, T.J.-L. , and Wamsteker, W. 1988, Variations of the ultraviolet spectrum of 3C273: 9 years of IUE data, A. & A. , 204, 21.

Ulrich, M.-H. , Hackney, K.R.H. , Hackney, R.L. , and Kondo, Y. 1984, Variability of the ultraviolet spectrum of BL Lacertae objects, Ap. J. , 276, 466.

Underhill, A.B. 1979, The effective temperature, radius, rate of mass loss, and luminosity of P Cygni, HD 190603, Kappa Cassiopeae and Rho Leonis, Ap. J. , 234, 528.

Underhill, A.B. 1980, The CIV resonance lines in B and early A supergiants, Ap. J. , 235, L149.

- Underhill, A.B. 1980, A suggestion concerning the generation of the physical state of stellar mantles, Ap. J., 240, L153.
- Underhill, A.B. 1981, Evidence for autoionization and dielectronic recombination of SiII in the atmospheres of B-type stars, A. & A., 97, L9.
- Underhill, A.B. 1982, Angular diameters, effective temperatures, radii, and luminosities of O3, O4, and O5 stars, Ap. J., 263, 741.
- Underhill, A.B. 1983, An alternative model for the atmospheres of Wolf-Rayet and O stars, Ap. J., 265, 933.
- Underhill, A.B. 1983, The angular diameters, effective temperatures, radii, and luminosities of 10 Wolf-Rayet stars, Ap. J., 266, 718.
- Underhill, A.B. 1983, Possible evidence for the driving of the winds of hot stars by alfven waves, Ap. J., 268, L127.
- Underhill, A.B. 1984, The ultraviolet variability of early-type supergiants, Ap. J., 285, 668.
- Underhill, A.B. 1984, Similar photospheres, different mantles: a study of four O stars, Ap. J., 287, 874.
- Underhill, A.B. 1985, An interpretation of the spectral variations of Theta Coronae Borealis, A. & A., 148, 431.
- Underhill, A.B. 1986, Comments on using absolute spectrophotometry of Wolf-Rayet stars, Ap. J., 300, 374.
- Underhill, A.B., and Fahey, R.P. 1984, Do bipolar magnetic regions exist on the surfaces of early-type stars?, Ap. J., 280, 712.
- Underhill, A.B., and Fahey, R.P. 1987, The problem of V444 Cygni, Ap. J., 313, 358.
- Unglaub, K., and Bues, I. 1990, The nature of the hot subdwarf SB 744, A. & A., 233, 159.
- Urry, C.M., Kondo, Y., Hackney, K.R.H., and Hackney, R.L. 1988, Eight years of ultraviolet spectra of the variable BL Lacertae object PKS 2155-304, Ap. J., 330, 791.

Urry, C.M., Mushotzky, R.F., Kondo, Y., Hackney, K.R.H., and Hackney, R.L. 1982, Ultraviolet and X-ray observations of the BL Lacertae PKS0548-322, Ap. J., 261, 12.

Vacca, W.D., and Torres-Dodgen, A.V. 1990, Color excesses, intrinsic colors, and absolute magnitudes of galactic and Large Magellanic Cloud Wolf-Rayet stars, Ap. J. Suppl., 73, 685.

van der Klis, M., Hammerschlag-Hensberge, G., Bonnet-Bidaud, J.M., Ilovaisky, S.A., Mouchet, M., Glencross, W.M., Willis, A.J., van Paradijs, J.A., Zuiderwijk, E.J., and Chevalier, C. 1982, A study of ultraviolet spectroscopic and light variations in the X-ray binaries LMC X-4 and SMC X-1, A. & A., 106, 339.

Van Hamme, W., and Wilson, R.E. 1990, Rotation statistics of Algol-type binaries and results on RY Geminorum, RW Monocerotis, and RW Tauri, A.J., 100, 1981.

van Paradijs, J., Allington-Smith, J., Callanan, P., Charles, P.A., Hassall, B.J.M., Machin, G., Mason, K.O., Naylor, T., and Smale, A.P. 1990, Optical spectroscopy of V1341 Cygni, the optical counterpart of Cygnus X-2, A. & A., 235, 156.

Van Steenberg, M.E., and Shull, J.M. 1988, Galactic interstellar abundance surveys with IUE. III. Silicon, manganese, iron, sulfur, and zinc, Ap. J., 330, 942.

Van Steenberg, M.E., and Shull, J.M. 1988, IUE-IRAS studies of the infrared cirrus, Ap. J., 335, 197.

Van Steenberg, M.E., and Shull, J.M. 1988, Galactic interstellar abundance surveys with IUE. II. The equivalent widths and column densities, Ap. J. Suppl., 67, 225.

Varshni, Y.P. 1988, Identification of lines in the spectrum of the quasar 0237-233, Astrophys. Sp. Sci., 149, 197.

Vauclair, G., Weidemann, V., and Koester, D. 1981, Discovery of strong ultraviolet absorption in the spectrum of the DC white dwarf G33-49, A. & A., 100, 113.

Vauclair, G., Weidemann, V., and Koester, D. 1982, IUE observations of UV absorption in the spectrum of the C2 white dwarf L1363-3, A. & A., 109, 7.

- Vennes, S., Chayer, P., Fontaine, G., and Wesemael, F. 1989, An explanation for the peculiar EUV spectrum of the hot DA white dwarf Feige 24, Ap. J., 336, L25.
- Vennes, S., Shipman, H.L., and Petre, R. 1990, On the interpretation of the Exosat photometry of two hot DA white dwarfs, Ap. J., 364, 647.
- Verbunt, F. 1987, Ultraviolet observations of cataclysmic variables: the IUE archive, A. & A. Suppl., 71, 339.
- Verbunt, F., Hassall, B.J.M., Pringle, J.E., Warner, B., and Marang, F. 1987, Multiwavelength monitoring of the dwarf nova VW Hydri. III. IUE observations, M.N.R.A.S., 225, 113.
- Verbunt, F., Pringle, J.E., Wade, R.A., Echevarria, J., Jones, D.H.P., Argyle, R.W., Schwarzenberg-Czerny, A., la Dous, C., and Schoembs, R. 1984, Dwarf novae in outburst: simultaneous ultraviolet and optical observations of UZ Serpentis, RX Andromedae and AH Herculis, M.N.R.A.S., 210, 197.
- Veron-Cetty, M.P., Veron, P., and Tarenghi, M. 1983, The composite UV emission spectrum of Seyfert 1 galaxies, A. & A., 119, 69.
- Veron, P., Veron-Cetty, M.P., and Tarenghi, M. 1985, The ultraviolet absorption spectrum of NGC 4151, A. & A., 150, 317.
- Vilhu, O., Ambruster, C.W., Neff, J.E., Linsky, J.L., Brandenburg, A., Ilyin, I.V., and Shakhovskaya, N.I. 1989, IUE observations of the M dwarfs CM Draconis and Rossiter 137B: magnetic activity at saturated levels, A. & A., 222, 179.
- Vilhu, O., and Heise, J. 1986, EXOSAT and IUE observations of contact binaries, Ap. J., 311, 937.
- Vilhu, O., Neff, J.E., and Rahunen, T. 1989, Rotational modulation of hydrogen Lyman-alpha flux from 44 Iota Bootis, A. & A., 208, 201.
- Vilhu, O., and Rucinski, S.M. 1983, Period-activity relation in close binaries, A. & A., 127, 5.
- Vilhu, O., and Walter, F.M. 1987, Chromospheric-coronal activity at saturated levels, Ap. J., 321, 958.

- Viotti, R., Altamore, A., Baratta, G.B., Cassatella, A., and Friedjung, M. 1984, IUE observations of the high-velocity symbiotic star AG Draconis. II. The spectral variations during 1979-1983, *Ap. J.*, 283, 226.
- Viotti, R., Altamore, A., Ferrari-Toniolo, M., Friedjung, M., Persi, P., Rossi, C., and Rossi, L. 1986, The symbiotic star BX Monocerotis, *A. & A.*, 159, 16.
- Viotti, R., Cassatella, A., Ponz, D., and The, P.S. 1988, AG Carinae. II. IUE observations of the ring nebula, *A. & A.*, 190, 333.
- Viotti, R., Piro, L., Friedjung, M., and Cassatella, A. 1987, First unambiguous X-ray detection of R Aquarii, *Ap. J.*, 319, L7.
- Viotti, R., Ricciardi, O., Ponz, D., Giangrande, A., Friedjung, M., Cassatella, A., Baratta, G.B., and Altamore, A. 1983, IUE observations of the high velocity symbiotic star AG Draconis during active phase, *A. & A.*, 119, 285.
- Viotti, R., Rossi, L., Cassatella, A., Altamore, A., and Baratta, G.B. 1989, The ultraviolet spectrum of Eta Carinae, *Ap. J. Suppl.*, 71, 983.
- Viton, M., Burgarella, D., Cassatella, A., and Prevot, L. 1988, The Spacelab-1 Very Wide Field survey of UV-excess objects. I. CPD-71 172AB, a new binary with a hot subdwarf, *A. & A.*, 205, 147.
- Vladilo, G., Beckman, J.E., Crivellari, L., Franco, M.L., and Molaro, P. 1985, The distribution of the local interstellar medium derived from Mg II column densities towards seven cool stars, *A. & A.*, 144, 81.
- Vladilo, G., and Centurion, M. 1990, Ionization and elemental depletion in the interstellar medium, *A. & A.*, 233, 168.
- Vladilo, G., Molaro, P., Crivellari, L., Foing, B.H., Beckman, J.E., and Genova, R. 1987, Chromospheric MgII h and k emissions free of interstellar contamination: velocity structure in late-type dwarfs and giants, *A. & A.*, 185, 233.
- Voit, G.M., Shull, J.M., and Begelman, M.C. 1987, Broad, variable absorption lines in the Seyfert galaxy NGC 3516: probing the structure of the emission-line regions, *Ap. J.*, 316, 573.

- Vrtilek, S.D., Raymond, J.C., Garcia, M.R., Verbunt, F., Hasinger, G., and Kurster, M. 1990, Observations of Cygnus X-2 with IUE: ultraviolet results from a multiwavelength campaign, *A. & A.*, 235, 162.
- Wade, R.A. 1988, A test of synthetic accretion disk spectra using ultraviolet flux distributions of novalike variables, *Ap. J.*, 335, 394.
- Waelkens, C., Waters, L.B.F.M., Cassatella, A., Le Bertre, T., and Lamers, H.J.G.L.M. 1987, HD 213985: a hot post-AGB star in the galactic halo, *A. & A.*, 181, L5.
- Wagener, R., and Caldwell, J. 1985, Space Telescope observations of aurorae on the giant planets, *Adv. Sp. Res.*, 5, 189.
- Wagener, R., and Caldwell, J. 1988, Strong north/south asymmetry in the Jovian stratosphere, *Icarus*, 74, 141.
- Wagener, R., Caldwell, J., and Fricke, K.-H. 1986, The geometric albedos of Uranus and Neptune between 2100 and 3350 Å, *Icarus*, 67, 281.
- Wagener, R., Caldwell, J., Owen, T., Kim, S.J., and Encieuat, T. 1985, The Jovian stratosphere in the ultraviolet, *Icarus*, 63, 222.
- Waite, Jr., J.H., Clarke, J.T., Cravens, T.E., and Hammond, C.M. 1988, The Jovian aurora: electron or ion precipitation?, *Jour. Geophys. Res.*, 93, 7244.
- Walborn, N.R., Fitzpatrick, E.L., and Nichols-Bohlin, J. 1990, Massa's star, HD 93840: a new extreme BN supergiant, *P.A.S.P.*, 102, 543.
- Walborn, N.R., Heckathorn, J.N., and Hesser, J.E. 1984, The high-ionization and excited-state interstellar lines in the Carina nebula: a giant HII region in absorption, *Ap. J.*, 276, 524.
- Walborn, N.R., and Hesser, J.E. 1982, An ultraviolet study of high velocity interstellar lines in the Carina Nebula, *Ap. J.*, 252, 156.
- Walborn, N.R., and Nichols-Bohlin, J. 1987, Ultraviolet spectral morphology of the O stars. IV. The OB supergiant sequence, *P.A.S.P.*, 99, 40.

Walborn, N.R., and Panek, R.J. 1984, Ultraviolet spectral morphology of the O stars: the remarkable luminosity dependence of the Si IV stellar wind effect, Ap. J., 280, L27.

Walborn, N.R., and Panek, R.J. 1984, Ultraviolet spectral morphology of the O stars. II. The main sequence, Ap. J., 286, 718.

Walborn, N.R., and Panek, R.J. 1985, Ultraviolet spectral morphology of the O stars. III. The ON and OC stars, Ap. J., 291, 806.

Walker, G.A.H., Yang, S., Fahlman, G.G., and Witt, A.N. 1980, The extinction of HD 200775 by dust in NGC 7023, P.A.S.P., 92, 411.

Wall, J.V., Danziger, I.J., Pettini, M., Warwick, R.S., and Wamsteker, W. 1986, PKS 2005-489: a very bright BL Lac object in a nearby galaxy, M.N.R.A.S., 219, 23P.

Wallis, M.K., and Carey, W.C. 1985, Observations of Comet Crommelin - V. Anomalous hydrogen source, M.N.R.A.S., 217, 673.

Wallis, M.K., and Krishna Swamy, K.S. 1987, Some diatomic molecules from comet P/Halley's UV spectra near spacecraft flybys, A. & A., 187, 329.

Walsh, J.R., Nandy, K., Thompson, G.I., and Meaburn, J. 1986, The properties of the nuclei of the two hot spot galaxies NGC 1097 and 2997, M.N.R.A.S., 220, 453.

Walter, F.M. 1986, X-ray sources in regions of star formation. I. The naked T Tauri stars, Ap. J., 306, 573.

Walter, F.M. 1987, The naked T Tauri stars: the low-mass pre-main sequence unveiled, P.A.S.P., 99, 31.

Walter, F.M., Brown, A., Linsky, J.L., Rydgren, A.E., Vrba, F., Roth, M., Carrasco, L., Chugainov, P.F., Shakovskaya, N.I., and Imhoff, C.L. 1987, X-ray sources in regions of star formation. II. The pre-main-sequence G star HDE 283572, Ap. J., 314, 297.

Walter, F.M., Gibson, D.M., and Basri, G.S. 1983, First observations of stellar coronal structure: the coronae of AR Lacertae, Ap. J., 267, 665.

Walter, F.M., Linsky, J.L., Simon, T., Golub, L., and Vaiana, G.S. 1984, Stellar chromospheres and coronae in the Ursa Major Cluster stars, *Ap. J.*, 281, 815.

Walter, F.M., Neff, J.E., Gibson, D.M., Linsky, J.L., Rodono, M., Gary, D.E., and Butler, C.J. 1987, Rotational modulation and flares on RS CVn and BY Dra stars. IV. The spatially resolved chromosphere of AR Lacertae, *A. & A.*, 186, 241.

Walter, R., and Courvoisier, T.J.-L. 1990, The ultraviolet and X-ray spectrum of NGC 5548: evidence for thermal Comptonization and geometrical variations, *A. & A.*, 233, 40.

Walter, R., Ulrich, M.-H., Courvoisier, T.J.-L., and Buson, L.M. 1990, The variable ultraviolet absorption lines in the Seyfert 1 galaxy NGC 3516, *A. & A.*, 233, 53.

Wampler, E.J. 1986, The iron spectra of PG 1700+518 and PG 2302+029, *A. & A.*, 161, 223.

Wampler, E.J., Gaskell, C.M., Burke, W.L., and Baldwin, J.A. 1984, Spectrophotometry of two complete samples of flat radio spectrum quasars, *Ap. J.*, 276, 403.

Wamsteker, W., and Barr, P. 1985, Outflow in the nucleus of the Seyfert I galaxy NGC 3783, *Ap. J.*, 292, L45.

Wamsteker, W., and Colina, L. 1986, The behavior of the C IV emission line in active galactic nuclei, *Ap. J.*, 311, 617.

Wamsteker, W., Driessen, C., Munoz, J.R., Hassall, B.J.M., Pasian, F., Barylak, M., Russo, G., Egret, D., Murray, J., Talavera, A., and Heck, A. 1989, IUE-ULDA/USSP: the on-line low resolution spectral data archive of the International Ultraviolet Explorer, *A. & A. Suppl.*, 79, 1.

Wamsteker, W., Panagia, N., Barylak, M., Cassatella, A., Clavel, J., Gilmozzi, R., Gry, C., Lloyd, C., van Santvoort, J., and Talavera, A. 1987, Early observations of Supernova 1987A with the International Ultraviolet Explorer (IUE), *A. & A.*, 177, L21.

Wamsteker, W., Rodriguez-Pascual, P., Wills, B.J., Netzer, H., Wills, D., Gilmozzi, R., Barylak, M., Talavera, A., Maoz, D., Barr, P., and Heck, A. 1990, Ultraviolet and optical variations in active galactic nuclei: the Seyfert 1 galaxy NGC 5548, *Ap. J.*, 354, 446.

- Wandel, A., and Petrosian, V. 1988, Accretion-disk modeling of the UV spectrum of quasars, *Ap. J.*, 329, L11.
- Wargau, W., Drechsel, H., Rahe, J., and Vogt, N. 1982, New evidence of strong UV radiation in TT Ari, *A. & A.*, 110, 281.
- Warner, B., and Sneden, C. 1988, HD 38451: J.R. Hind's star that changed colour, *M.N.R.A.S.*, 234, 269.
- Watanabe, T. 1988, An indication of extended chromospheres in line width-luminosity relations, *Publ. Astron. Soc. Japan*, 40, 475.
- Watts, D.J., Bailey, J., Hill, P.W., Greenhill, J.G., McCowage, C., and Carty, T. 1986, Spectrophotometry of the eclipsing dwarf nova V2051 Ophiuchi, *A. & A.*, 154, 197.
- Weaver, H.A., Feldman, P.D., Festou, M.C., and A'Hearn, M.F. 1981, Water production models for Comet Bradfield (1979X), *Ap. J.*, 251, 809.
- Weaver, H.A., Feldman, P.D., Festou, M.C., A'Hearn, M.F., and Keller, H.U. 1981, IUE observations of faint comets, *Icarus*, 47, 449.
- Weedman, D.W., Feldman, F.R., Balzano, V.A., Ramsey, L.W., Sramek, R.A., and Wu, C.-C. 1981, NGC 7714: the prototype star burst galactic nucleus, *Ap. J.*, 248, 105.
- Weedman, D.W., and Huenemoerder, D.P. 1985, IUE observations of a starburst disk and the detectability of high redshift galaxies, *Ap. J.*, 291, 72.
- Weedman, D.W., and Williams, K.L. 1987, Isophotal diameters of galaxies at high redshifts, *Ap. J.*, 318, 585.
- Wegner, G. 1981, Observations of strong ultraviolet absorptions in the spectrum of the DC white dwarf LDS 678B, *Ap. J.*, 245, L27.
- Wegner, G. 1981, Observations of strong ultraviolet absorptions in the spectrum of the DC white dwarf G218-8, *Ap. J.*, 248, L129.
- Wegner, G. 1982, Detection of the 1400 Å absorption in the ultraviolet spectrum of the DA white dwarf LB 3303, *Ap. J.*, 261, L87.

- Wegner, G. 1983, Ultraviolet carbon lines in the spectrum of the white dwarf BPM 11668, A. & A., 128, 258.
- Wegner, G. 1983, Observations of ultraviolet carbon lines in the spectra of three DC white dwarfs, Ap. J., 268, 282.
- Wegner, G. 1984, The absorption near 1400 Å in the spectra of additional DA white dwarfs, A.J., 89, 1050.
- Wegner, G. 1984, The discontinuity near 1600 Å in the spectra of DA white dwarfs, Ap. J., 284, L43.
- Wegner, G., Cummins, D.J., Byrne, P.B., and Stickland, D.J. 1983, Element identifications in the ultraviolet spectrum of HD 101065, Ap. J., 272, 646.
- Wegner, G., and McMahan, R.K. 1988, Spectral types for objects in the Kiso survey. IV. Data for 81 stars, A.J., 96, 1933.
- Wegner, G., and Nelan, E.P. 1987, Ultraviolet and visual spectroscopy of DB white dwarfs, Ap. J., 319, 916.
- Wegner, G., and Yackovich, F.H. 1983, The cool DC white dwarf Stein 2051B, Ap. J., 275, 240.
- Weidemann, V. 1989, Distances and mass distribution of central stars of planetary nebulae, A. & A., 213, 155.
- Weidemann, V., and Koester, D. 1989, The presence of carbon in DZ star atmospheres, A. & A., 210, 311.
- Weidemann, V., Koester, D., and Vauclair, G. 1980, IUE observations of strong UV absorption in the spectrum of the C2 white dwarf LP 145-141, A. & A., 83, L13.
- Weidemann, V., Koester, D., and Vauclair, G. 1981, IUE observations of UV carbon I absorption lines in the spectrum of the C2 white dwarf L 97-3, A. & A., 95, L9.
- Welch, G.A. 1982, The ultraviolet spectrum of the center of M31, Ap. J., 259, 77.
- Welsh, B.Y. 1983, IUE observations of stars in the M8 nebula, M.N.R.A.S., 204, 1203.
- Welsh, B.Y. 1984, IUE observations of high velocity gas towards the M16 nebula, M.N.R.A.S., 207, 167.

- Welsh, B.Y., Boksenberg, A., Anderson, B., and Towlson, W.A. 1983, High resolution ultraviolet observations of Alpha Lyrae using the University College London balloon-borne telescope system, *A. & A.*, 126, 335.
- Welsh, B.Y., and Thomas, C.K. 1982, The physical state of the gas towards HD 93206, *M.N.R.A.S.*, 199, 385.
- Welty, D.E., York, D.G., and Hobbs, L.M. 1986, The interstellar carbon abundance. II. Rho Ophiuchi and Beta Scorpii, *P.A.S.P.*, 98, 857.
- Wesemael, F., Green, R.F., and Liebert, J. 1985, Spectrophotometric and model-atmosphere analyses of the hot DO and DAO white dwarfs from the Palomar-Green Survey, *Ap. J. Suppl.*, 58, 379.
- Wesemael, F., Henry, R.B.C., and Shipman, H.L. 1984, Metal abundances in the hot DA white dwarfs Wolf 1346 and Feige 24, *Ap. J.*, 287, 868.
- Wesemael, F., Holberg, J.B., Veilleux, S., Lamontagne, R., and Fontaine, G. 1985, Studies of hot B subdwarfs. II. Energy distributions of three bright sdB/sdOB stars in the 950-5500 Å range, *Ap. J.*, 298, 859.
- Wesemael, F., Lamontagne, R., and Fontaine, G. 1986, Time-averaged ultraviolet observations of the pulsating DA white dwarfs from the IUE observatory, *A.J.*, 91, 1376.
- Wesemael, F., Liebert, J., and Green, R.F. 1984, Far and extreme-ultraviolet spectrophotometry of hot white dwarfs: prospects for the determination of the He/H ratio in DA stars, *P.A.S.P.*, 96, 981.
- Westin, B.A.M. 1984, The UV spectrum of the Seyfert I galaxy NGC 7469, *A. & A.*, 132, 136.
- Wickramasinghe, D.T. 1983, IUE observations of five DB white dwarfs, *M.N.R.A.S.*, 203, 903.
- Wilcots, E.M., Hodge, P., Eskridge, P.B., Bertola, F., and Buson, L. 1990, Ultraviolet observations of NGC 205, *Ap. J.*, 364, 87.
- Williams, P.M., Longmore, A.J., van der Hucht, K.A., Talevera, A., Wamsteker, W.M., Abbott, D.C., and Telesco, C.M. 1985, Condensation of dust around the WC7 star HD 192641 (WR 137), *M.N.R.A.S.*, 215, 23P.
- Williams, P.M., van der Hucht, K.A., Pollock, A.M.T., Florkowski, D.R., van der Woerd, H., and Wamsteker, W.M. 1990, Multi-frequency variations of the Wolf-Rayet system HD 193793 - I. Infrared, X-ray and radio observations, *M.N.R.A.S.*, 243, 662.

- Williams, R.E., Ney, E.P., Sparks, W.M., Starrfield, S.G., Wyckoff, S., and Truran, J.W. 1985, Ultraviolet spectral evolution and heavy element abundances in Nova Coronae Australinae 1981, M.N.R.A.S., 212, 753.
- Williams, R.E., Sparks, W.M., Gallagher, J.S., Ney, E.P., Starrfield, S.G., and Truran, J.W. 1981, Ultraviolet spectroscopy of the recurrent nova U Scorpii during outburst, Ap. J., 251, 221.
- Williger, G., Berriman, G., Wade, R.A., and Hassall, B.J.M. 1988, IUE observations of the dwarf nova BV Centauri, Ap. J., 333, 277.
- Willis, A.J. 1982, P-Cygni profiles observed in the ultraviolet and visible spectra of Wolf-Rayet stars, M.N.R.A.S., 198, 897.
- Willis, A.J., Howarth, I.D., Smith, L.J., Garmany, C.D., and Conti, P.S. 1989, Ultraviolet P-Cygni profile variations in HD 50896, A. & A. Suppl., 77, 269.
- Willis, A.J., Howarth, I.D., Stickland, D.J., and Heap, S.R. 1989, The ultraviolet variability of HD 45166 (qWR+B8 V): evidence for stellar wind radiative instabilities, Ap. J., 347, 413.
- Willis, A.J., and Stickland, D.J. 1980, HD 15570: a star intermediate between Of and WN7?, M.N.R.A.S., 190, 27P.
- Willis, A.J., and Stickland, D.J. 1981, Anomalous far-UV extinction in the WN6 star HD 147419, M.N.R.A.S., 197, 1P.
- Willis, A.J., and Stickland, D.J. 1983, The enigmatic composite system HD 45166 - B8V+qWR or SdO?, M.N.R.A.S., 203, 619.
- Willis, A.J., and Stickland, D.J. 1990, The ultraviolet and optical spectrum and evolutionary status of HD 62910 (WN 6-C4), A. & A., 232, 89.
- Willis, A.J., van der Hucht, K.A., and Conti, P.S. 1986, An atlas of high-resolution IUE ultraviolet spectra of 14 Wolf-Rayet stars, A. & A. Suppl., 63, 417.
- Willis, A.J., Wilson, R., Vanden Bout, P., Sanner, F., Black, J., Davis, R.J., Dupree, A.K., Gursky, H., Hartmann, L., Raymond, J., Matilsky, T., Burger, M., de Loore, C., van Dessel, E.L., Whitelock, P., Menzies, J., Meikle, W.P.S., Joseph, R.D., Sanford, P., Pollard, G., and Sandford, M.C.W. 1980, Ultraviolet, visible, infrared, and X-ray observations of Scorpius X-1, Ap. J., 237, 596.

- Wills, B.J., Netzer, H., and Wills, D. 1985, Broad emission features in QSOs and active galactic nuclei. II. New observations and theory of Fe II and H I emission, Ap. J., 288, 94.
- Wilson, R., Carnochan, D.J., Gondhalekar, P.M., Sofia, S., Sparks, W.M., and Endal, A.S. 1979, An ultraviolet spectrum of the high redshift quasar Q2204-408, Nature, 277, 457.
- Winkelstein, P., Caldwell, J., Kim, S.J., Combes, M., Hunt, G.E., and Moore, V. 1983, A determination of the composition of the Saturnian stratosphere using the IUE, Icarus, 54, 309.
- Witt, A.N., Bohlin, R.C., and Stecher, T.P. 1981, The ultraviolet interstellar extinction curve in the Pleiades, Ap. J., 244, 199.
- Witt, A.N., Bohlin, R.C., and Stecher, T.P. 1983, The diffuse interstellar feature at 4430 Å and interstellar extinction in the far-ultraviolet, Ap. J., 267, L47.
- Witt, A.N., Bohlin, R.C., and Stecher, T.P. 1984, The variation of galactic interstellar extinction in the ultraviolet, Ap. J., 279, 698.
- Witt, A.N., Bohlin, R.C., and Stecher, T.P. 1986, Colors of reflection nebulae. III. Ultraviolet scattering by small particles in reflection nebulae associated with 17, 20, and 23 Tauri, Ap. J., 302, 421.
- Witt, A.N., Bohlin, R.C., and Stecher, T.P. 1986, Detection of scattering in the 2175 Å interstellar band, Ap. J., 305, L23.
- Witt, A.N., Bohlin, R.C., Stecher, T.P., and Graff, S.M. 1987, The unusual dust-scattering properties in the reflection nebula CED 201, Ap. J., 321, 912.
- Witt, A.N., Stecher, T.P., Boroson, T.A., and Bohlin, R.C. 1989, UV fluorescence of molecular hydrogen and red dust emission in the Gamma Cassiopeiae nebula IC 63, Ap. J., 336, L21.
- Witt, A.N., Walker, G.A.H., Bohlin, R.C., and Stecher, T.P. 1982, The scattering phase function of interstellar grains: the case of the reflection nebula NGC 7023, Ap. J., 261, 492.
- Wolf, B., and Appenzeller, I. 1979, The UV resonance lines of Zeta 1 Sco, A. & A., 78, 15.

Wolf, B., Appenzeller, I., and Cassatella, A. 1980, IUE and ground based observations of the LMC star S Doradus, A. & A., 88, 15.

Wolf, B., Appenzeller, I., and Stahl, O. 1981, IUE and ground-based spectroscopic observations of the S Dor-type LMC Variable R71 during minimum state, A. & A., 103, 94.

Wolf, B., Stahl, O., de Groot, M.J.H., and Sterken, C. 1981, R81: P Cygni of the LMC, A. & A., 99, 351.

Wolf, B., Stahl, O., and Seifert, W. 1987, High-dispersion spectroscopy of the Of/WN stars R84 and S61 of the Large Magellanic Cloud, A. & A., 186, 182.

Wolf, B., Stahl, O., Smolinski, J., and Cassatella, A. 1988, Spectroscopy of the present extraordinary bright outburst phase of the LMC S Dor variable R 127, A. & A. Suppl., 74, 239.

Wolfe, A.M. 1983, Why high-latitude clouds in our Galaxy and the highly redshifted clouds observed in front of QSOs do not belong to the same parent population, Ap. J., 268, L1.

Wolff, S.C., Boesgaard, A.M., and Simon, T. 1986, Activity in F stars, Ap. J., 310, 360.

Wollaert, J.P.M., Lamers, H.J.G.L.M., and de Jager, C. 1988, A differential analysis of UV photospheric lines of OBN and OBC stars, A. & A., 194, 197.

Wood, M.A., Winget, D.E., Nather, R.E., Hessman, F.V., Liebert, J., Kurtz, D.W., Wesemael, F., and Wegner, G. 1987, The exotic helium variable PG 1346+082, Ap. J., 313, 757.

Woods, J.A., Drew, J.E., and Verbunt, F. 1990, Time dependence of the UV resonance lines in the cataclysmic variables SU UMa, RX And and 0623+71, M.N.R.A.S., 245, 323.

Woosley, S.E. 1988, SN 1987A: after the peak, Ap. J., 330, 218.

Woosley, S.E., Pinto, P.A., Martin, P.G., and Weaver, T.A. 1987, Supernova 1987A in the Large Magellanic Cloud: the explosion of a 20 solar mass star which has experienced mass loss?, Ap. J., 318, 664.

Worrall, D.M., Puschell, J.J., Bruhwiler, F.C., Miller, H.R., Aller, M.F., and Aller, H.D. 1984, Multifrequency observations of the quasi-stellar object Ton 1542, P.A.S.P., 96, 699.

Worrall, D.M., Puschell, J.J., Bruhweiler, F.C., Miller, H.R., Rudy, R.J., Ku, W.H.-M., Aller, M.F., Aller, H.D., Hodge, P.E., Matthews, K., Neugebauer, G., Soifer, B.T., Webb, J.R., Pica, A.J., Pollack, J.T., Smith, A.G., and Leacock, R.J. 1984, Two multifrequency observations of 3C371, Ap. J., 278, 521.

Worrall, D.M., Puschell, J.J., Bruhweiler, F.C., Sitko, M.L., Stein, W.A., Aller, M.F., Aller, H.D., Hodge, P.E., Rudy, R.J., Miller, H.R., Wisniewski, W.Z., Cordova, F.A., and Mason, K.O. 1984, Multifrequency observations of the BL Lacertae objects OQ 530 and ON 325, Ap. J., 284, 512.

Worrall, D.M., Puschell, J.J., Jones, B., Bruhweiler, F.C., Aller, M.F., Aller, H.D., Hodge, P.E., Sitko, M.L., Stein, W.A., Zhang, Y.X., and Ku, W.H.M. 1982, Two multifrequency observations of the BL Lacertae object OJ 287, Ap. J., 261, 403.

Worrall, D.M., Puschell, J.J., Rodriguez-Espinosa, J.M., Bruhweiler, F.C., Miller, H.R., Aller, M.F., and Aller, H.D. 1984, Multifrequency spectral behavior of the BL Lacertae objects OI 90.4 and 3C66A, Ap. J., 286, 711.

Worrall, D.M., Rodriguez-Espinosa, J.M., Wisniewski, W.Z., Miller, H.R., Bruhweiler, F.C., Aller, M.F., and Aller, H.D. 1986, Observations of three BL Lacertae objects: constraints on inhomogeneous relativistically beamed jet models, Ap. J., 303, 589.

Wray, J.D., Parsons, S.B., and Henize, K.G. 1979, HD 149499B: the hottest white dwarf?, Ap. J., 234, L187.

Wu, C.-C., Boggess, A., and Gull, T.R. 1980, Lyman alpha fluxes of Seyfert galaxies and low-redshift quasars, Ap. J., 242, 14.

Wu, C.-C., Boggess, A., and Gull, T.R. 1981, The CIV 1550 profile in type I Seyfert galaxies, Ap. J., 247, 449.

Wu, C.-C., Boggess, A., and Gull, T.R. 1983, Prominent ultraviolet emission lines from type 1 Seyfert Galaxies, Ap. J., 266, 28.

Wu, C.-C., Leventhal, M., Sarazin, C.L., and Gull, T.R. 1983, High velocity iron absorption lines in supernova remnant 1006, Ap. J., 269, L5.

- Wu, C.-C., Panek, R.J., Holm, A.V., Raymond, J.C., Hartmann, L.W., and Swank, J.H. 1989, Ultraviolet spectrophotometry and optical and infrared photometry of the old nova GK Persei, *Ap. J.*, 339, 443.
- Wu, C.-C., Panek, R.J., Holm, A.V., and Schmitz, M. 1983, Ultraviolet observations of the transient X-ray sources A0535+26 and A0620-00, *P.A.S.P.*, 95, 391.
- York, D.G., Blades, J.C., Cowie, L.L., Morton, D.C., Songaila, A., and Wu, C.-C. 1982, The gaseous galactic halo as inferred from the line spectra of the galaxies Markarian 509 and Fairall 9, *Ap. J.*, 255, 467.
- York, D.G., Caulet, A., Rybski, P., Gallagher, J., Blades, J.C., Morton, D.C., and Wamsteker, W. 1990, Interstellar absorption lines in the galaxy NGC 1705, *Ap. J.*, 351, 412.
- York, D.G., and Jura, M. 1982, Observations of interstellar zinc, *Ap. J.*, 254, 88.
- York, D.G., Ratcliff, S., Blades, J.C., Cowie, L.L., Morton, D.C., and Wu, C.-C. 1984, Interstellar lines in spectra of extragalactic sources. III. Markarian 509, Arakelian 120, and 3C273, *Ap. J.*, 276, 92.
- York, D.G., Wu, C.-C., Ratckiff, S., Blades, J.C., Cowie, L.L., and Morton, D.C. 1983, Interstellar absorption lines in the spectrum of 3C273, *Ap. J.*, 274, 136.
- Yoshii, Y., and Takahara, F. 1988, Galactic evolution and cosmology: probing the cosmological deceleration parameter, *Ap. J.*, 326, 1.
- Younan, K.F., and Dufton, P.L. 1984, Optical and ultraviolet study of five stars in the Pleiades open cluster, *M.N.R.A.S.*, 209, 123.
- Young, A., Skumanich, A., MacGregor, K.B., and Temple, S. 1990, High-latitude spot and plage activity on the rapidly rotating M dwarf star Gliese 890, *Ap. J.*, 349, 608.
- Young, A., and Snyder, J.A. 1982, Evidence for accretion activity and obscured hot component stars in W Serpentis type binaries, *Ap. J.*, 262, 269.
- Yung, Y.L., Gladstone, G.R., Chang, K.M., Ajello, J.M., and Srivastava, S.K. 1982, H₂ fluorescence spectrum from 1200 to 1700 Å by electron impact: Laboratory study and application to Jovian aurora, *Ap. J.*, 254, L65.

Zahnle, K.J., and Walker, J.C.G. 1982, The evolution of solar ultraviolet luminosity, Rev. Geophys. & Sp. Phys., 20, 280.

Zanella, R., Wolf, B., and Stahl, O. 1984, Spectroscopy of the shell episode of Eta Car (1981-1983), A. & A., 137, 79.

Zeidler-K.T., E.-M., Weidemann, V., and Koester, D. 1986, Metal abundances in helium-rich white dwarf atmospheres, A. & A., 155, 356.

Zheng, W., and O'Brien, P.T. 1990, Differential line development and the complex structure of the broad-line region in Fairall 9, Ap. J., 356, 463.

Zickgraf, F.-J., Wolf, B., Stahl, O., and Humphreys, R.M. 1989, S18: a new B[e] supergiant in the Small Magellanic Cloud with evidence for an excretion disk, A. & A., 220, 206.

Zickgraf, F.-J., Wolf, B., Stahl, O., Leitherer, C., and Appenzeller, I. 1986, B[e]-supergiants of the Magellanic Clouds, A. & A., 163, 119.

Zickgraf, F.-J., Wolf, B., Stahl, O., Leitherer, C., and Klare, G. 1985, The hybrid spectrum of the LMC hypergiant R 126, A. & A., 143, 421.

Zolcinski, M.C., Antiochos, S.K., Stern, R.A., and Walker, A.B.C. 1982, International Ultraviolet Explorer observations of Hyades stars, Ap. J., 258, 177.

Zorec, J., Hoflich, P., and Divan, L. 1989, Phase variations of 88 Herculis: Do the UV observations confirm a connection between these variations and the changes of the photospheric parameters of the underlying star?, A. & A., 210, 279.