

in great detail and the photophysics of interstellar molecules at least briefly. There are a few imperfections or omissions. For instance, there are a number of references to reviews and books, and yet I could not easily find a reference to *Physical Processes in the Interstellar Medium* (Wiley, New York, 1978) by Lyman Spitzer, even though it is the "general bible" on the interstellar medium. I would like to have seen cross references to chemistry occurring in the terrestrial and planetary atmospheres. Nevertheless, this is very minor criticism and I consider it a successful and refreshing book.

EDWIN E. SALPETER  
Cornell University

## new books

### Astronomy, Cosmology and Space Physics

**The Big Bang and Georges Lemaitre.** Proc. Symp., Louvain-la-Neuve, Belgium, October 1983. A. Berger, ed. 420 pp. Reidel, Boston, 1985. \$59.00

**Die Physik des Sonnensystems und der Kometen.** *Studium Universale* 6. W. Kundt, ed. 215 pp. Bouvier, Bonn, 1985. DM68.00. *Compendium*

**Astronomy: From Stonehenge to Quasars.** M. W. Friedlander. 589 pp. Prentice-Hall, Englewood Cliffs, N.J., 1985. \$30.95. *Introductory text*

**Halley's Comet: A Bibliography.** R. S. Freitag. 555 pp. Library of Congress, Washington, D.C., 1984. \$26.00

**Solar Neutrinos and Neutrino Astronomy.** AIP Conference Proc. 126. H. C. Wolfe, M. L. Cherry, K. Lande, W. A. Fowler, eds. 322 pp. AIP, New York, 1985. \$44.25

**Astrophysics Today: Readings from Physics Today.** A. G. W. Cameron, ed. 337 pp. AIP, New York, 1984. \$25.00

**Astronomy and Astrophysics Abstracts, Vol. 37: Literature 1984, Part 1.** S. Böhme, W. Fricke, H. Hefele, I. Heinrich, W. Hofmann, D. Krahn, V. R. Matas, L. D. Schmadel, G. Zech, eds. 937 pp. Springer-Verlag, New York, 1984. \$68.50

**Secrets of the Sun.** Ronald Giovanelli. 116 pp. Cambridge U.P., New York, 1984. \$19.95. *Lay readers*

**Physics of Thermal Gaseous Nebulae.** L. H. Aller. 350 pp. Reidel, Boston, 1984. \$49.50. *Monograph*

**Union List of Astronomy Serials.** J. A. Lola. 170 pp. PAM Division, Special Libraries Assn., Yerkes Observatory Library, Williams Bay, Wisc., 1984. \$20.00

**Serendipitous Discoveries in Radio Astronomy.** Proc. Wksp. Natl. Radio Astronomy Observatory, Green Bank, W. Virginia, May 1983. K. Kellerman, B. Sheets, eds. 321 pp. Natl. Radio Astronomy Observatory, Green Bank, West Virginia, 1984. \$7.00

**The X-Ray Universe.** W. Tucker, R. Giacconi. 201 pp. Harvard U.P., Cambridge, Mass., 1985. \$20.00. *Lay readers*

**Gamma Ray Astronomy.** R. Hillier. 202 pp. Clarendon P., Oxford, 1985. \$29.95. *Text*

**Clusters and Groups of Galaxies.** Proc. Intl. Mtg., Trieste, Italy, Sept. 1983. F. Mardrossian, G. Giuricin, M. Mezzetti, eds. 659 pp. Reidel, Boston, 1984. \$49.50

**A Catalogue of the Riche-Covington Collection.** *Douglas Library Occasional Paper Number 6.* L. H. Morley, B. de St. Remy. 63 pp. Douglas Library, Queen's University, Kingston, Ontario, 1983. \$10.00. *Bibliography on early radar and radioastronomy*

**How to Use an Astronomical Telescope: A Beginners Guide to Observing the Cosmos.** J. Muirden. 397 pp. Simon and Schuster, New York, 1985. \$21.95

**Observational Tests of the Stellar Evolution Theory.** Proc. Symp. Geneva, September 1983. A. Maeder, A. Renzini. 590 pp. Reidel, Boston, 1984. \$66.00 hardcover; \$29.95 paper

**Exploring the Moon Through Binoculars and Small Telescopes.** E. H. Cherrington Jr. 229 pp. Dover, New York, 1984. \$10.95

**Universe.** W. J. Kaufmann III. 594 pp. W. H. Freeman, New York, 1985. \$32.95. *Introductory text*

**Space Research Prospects in Stellar Activity and Variables.** Proc. Wksp. Observatoire de Paris, Meudon, France, February, March, 1984. A. Mangeney, F. Praderie, eds. Observatoire de Paris-Meudon, 1984. *Price not stated*

**Astronomy Laboratory Manual.** M. Kafatos. 83 pp. Kendall-Hunt, Dubuque, Ia., 1984. \$11.95

**The Cosmic Cycle.** T. P. Snow, 109 pp. Darwin, Princeton, New Jersey, 1984. \$19.95. *Lay readers*

**Astrodynamics 1983, Vol. 54, Parts 1 and 2.** G. T. Tseng, P. J. Cefona, P. M. Bainum, D. A. Levinson, eds. 1330 pp. American Astronomical Society, 1984. \$120.00 hardcover; \$90.00 paper. *Compendium*

**Guidance and Control 1984.** *Advances in the Astronomical Sciences. Vol. 55.* R. D. Culp, P. S. Stafford, eds. 485 pp. American Astronomical Society, 1984. \$60.00 hardcover; \$50.00 paper. *Compendium*

**The Comet Handbook.** G. Stasiuk, D. Gruber. 32 pp. Stasiuk Enterprises, Portland, Oregon, 1984. \$5.00. *Lay readers*

**Unstable Current Systems and Plasma Instabilities in Astrophysics.** Proc. Symp. International Astronomical Union, College Park, Md., August 1983. M. R. Kundu, G. D. Holman, eds. 566 pp. Reidel, Boston, 1985. \$80.00

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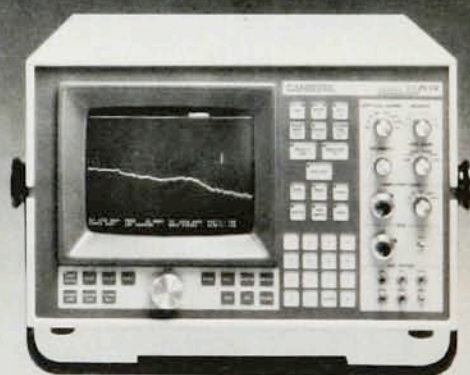
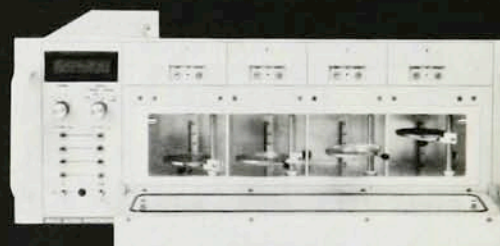
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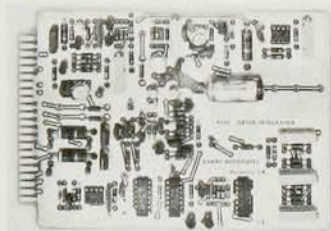


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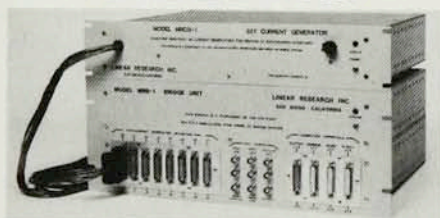
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**Vibronic Coupling: The Interaction Between the Electronic and Nuclear Motions**. G. Fischer. 212 pp. Academic, New York, 1984. \$42.00. *Monograph*

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**Comprehensive Treatise of Electrochemistry, Vol. 9. Electrodes: Experimental Techniques**. E. Yeager, J. O'M. Bockris, B. E. Conway, S. Sarangapani, eds. 451 pp. Plenum, New York, 1984. \$65.00. *Compendium*

**Molecular Liquids: Dynamics and Interactions**. *NATO ASI Series*. A. J. Barnes, W. J. Orville-Thomas, J. Yarwood, eds. 590 pp. Reidel, Boston, 1984. \$79.50. *Compendium*

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**Non-Equilibrium Dynamics in Chemical Systems**. Proc. Intl. Symp., Bordeaux, France, September 1984. C. Vidal, A. Paucault, eds. 255 pp. Springer-Verlag, New York, 1984. \$26.00

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**Laser-Controlled Chemical Processing of Surfaces**. *MRS Symposia Proceedings Vol. 29*. Proc. Symp. Boston, Massachusetts, November 1983. A. W. Johnson, D. J. Ehrlich, H. R. Schlossberg, eds. 425 pp. North-Holland, New York, 1984. \$70.00

**Advanced Theories and Computational Approaches to the Electronic Structure of Molecules**. *NATO ASI Series Proc.* of the NATO Adv. Research Workshop on Vectorization of Advanced Methods for Molecular Electronic Structure, Colorado Springs, Colorado, September 1983. E. Dykstra, ed. 236 pp. Reidel, Boston, 1984. \$39.00

**Theory of Slow Atomic Collisions**. *Springer Series in Chemical Physics 30*. E. E. Nikitin, S. Ya. Umanskii. 432 pp. Springer-Verlag, New York, 1984. \$49.00. *Monograph*

**Applied Atomic Collision Physics, Vol. 2: Plasmas**. C. F. Barnett, M. F. A. Harison, eds. 500 pp. Academic, New York, 1984. \$80.00. *Compendium*

**Surface Enhanced Raman Vibrational Studies at Solid-Gas Interfaces**. *Springer Tracts in Modern Physics. Vol. 104*. I. Pocarand. 164 pp. Springer-Verlag, New York, 1984. \$29.50. *Monograph*

**Atoms in Strong Light Fields**. *Springer Series in Chemical Physics 28*. N. B. Delone, V. P. Krainov. 339 pp. Springer-Verlag, New York, 1985. \$49.00. *Monograph*

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*Chemical Physics 41*. K. Uehara, H. Sasada. 226 pp. Springer-Verlag, New York, 1985. \$37.00

**Applications of Photochemistry**. R. Roberts, R. P. Ouellette, M. M. Muradaz, R. F. Cozzens, P. N. Cheremisinoff. 101 pp. Technomic, Lancaster, Penn., 1984. \$25.00. *Text*

**Application of Picosecond Spectroscopy to Chemistry**. K. B. Eisenthal, ed. 363 pp. Reidel, Boston, 1984. \$59.00. *Compendium*

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## Particles, Nuclei and High-Energy Physics

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**Particles and Gravity**. G. Domokos, S. Kovesi-Domokos, eds. 400 pp. World Scientific, Singapore (US dist. Francis and Taylor, Philadelphia), 1984. \$44.00 hardcover; \$30.00 paper

**Radiation Dosimetry: Electron Beams with Energies Between 1 and 50 MeV**. *ICRU Report 35*. 157 pp. Intl. Commission On Radiation Units and Measurements, Bethesda, Md. 1984. \$23.00

**Nuclear Tracks and Radiation Measurements. Special Volume: Solid-State Nuclear Track Detectors**. Intl. Conf. in Aca-pulco, Mexico, September 1983. G. Espinosa, R. V. Griffith, L. Tommasino, S. A. Durrani, E. V. Benton, eds. 651 pp. Pergamon, New York, 1984. \$110.00

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**Particle Physics: The Quest for the Substance of Substance**. *Contemporary Concepts in Physics. Vol. 2*. L. B. Okun. 223 pp. Harwood, New York, 1985. \$44.00 hardcover; \$18.00 paper. *Text*

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