spreading contract funds widely. The analysis that indicates how SDIO went about seeing that the "iron triangle" would come into play is very useful, in part because it gives sufficient detail to enable the reader to form a judgment about the thesis proffered. It also offers a basis on which to observe future events to see whether the constituency that has been built is powerful enough to withstand the budgetary pressures that the Bush administration faces.

The story of the critical role of Congress in the evolution of SDI remains to be written. Alan Sweedler provides some early facts about budgetary review and hearings but does not discuss at all an issue that has had a major impact on the direction of SDI: the fact that the Senate considered the Reagan administration's reinterpretation of the ABM Treaty to be an attack upon its constitutional treaty power. There is no doubt that the four Nunn Reports on ABM Treaty interpretation and the Biden-Byrd Resolution on the INF ratification process affected the way Congress regarded SDI. They contributed to the rising concern that the SDI testing program, if not restrained, would sooner or later come into conflict with the ABM Treaty—thus undermining the arms control process. The various congressional amendments that have kept the testing program within the traditional interpretation may not have affected the pace of work but have certainly highlighted, if not caused in part, the growing deglamorization of SDI.

This book whets the appetite for a thoroughgoing political analysis of SDI but cannot begin to satisfy it.

ANTONIA CHAYES
*Endispute,*
*1820 Jefferson Place, NW,*
*Washington, DC 20036*

## Some Other Books of Interest

**Inorganic Mass Spectrometry**. F. ADAMS, R. GIJBELS, and R. VAN GRIEKEN, Eds. Wiley-Interscience, New York, 1988. xii, 404 pp., illus. $65. Chemical Analysis, vol. 95.

"The scientific literature and conferences prove that mass spectrometry is most widely employed in the field of organic analysis, but this was not always the case," write the editors of this volume. Describing some difficulties that have limited its use with inorganic relative to organic materials, the editors note that recent developments have "implied a remedy, at least partially, to these limitations." Hence, "this book is published at a moment when there is, again, a sense of real excitement at the forefront of inorganic mass spectrometry." In it 12 mostly European authors (half from the University of Antwerp) report on the state of the art. In a brief opening chapter I. Cornides provides a historical introduction to the subject, tracing it from J. J. Thomson's investigations of "positive" electricity through the development of commercial instrumentation in the 1940s to the present era. The main text of the book consists of six chapters on the principles and applications of particular mass-spectroscopic techniques: spark source (Ramendik *et al.*), glow discharge (Harrison), secondary ion (Lodding), laser microprobe (Verbueken *et al.*), inductively coupled plasma source (Gray), and isotope dilution (Heumann). In a final chapter Gijbels and Adams discuss "recent trends and future prospects," noting the existence of "a profound interaction between those who design and build new mass spectrometric instrumentation and those who use it, which tends to push the field quickly forwards."—**K.L.**

**Ultrasound**. Its Chemical, Physical, and Biological Effects. KENNETH S. SUSLICK, Ed. VCH, New York, 1988. xiv, 336 pp., illus. $65.

The preface of this volume opens by tracing the discovery of cavitation, one of the mechanisms by which ultrasound affects liquid media, to difficulties experienced by the British destroyer H.M.S. *Daring* in 1894 and goes on to observe that "in spite of the impact that ultrasound has had on modern science and technology . . . there has been almost a complete lack of review materials on the underlying principles from which such effects originate." Noting both the diversity of uses for ultrasound and continuity in the underlying physical phenomena, the editor hopes with this volume to produce a "cross-fertilization [that will] be fruitful to each of the areas of specialization represented" in it. The opening chapter is a 64-page exposition by A. A. Atchley and L. A. Crum of acoustic cavitation and bubble dynamics, beginning with a basic definition of cavitation ("the formation and the subsequent dynamic life of bubbles in liquids") and including a historical perspective. James A. Rooney then discusses other nonlinear acoustic phenomena—streaming, emulsification and aggregate dispersal, atomization and droplet formation, radiation force, bubble oscillations. There follow chapters on industrial applications of ultrasound by A. Shoh, on homogeneous and heterogeneous sonochemistry by Suslick and P. Boudjouk, respectively, and on sonoluminescence by R. E. Verrall and C. M. Sehgal. The volume concludes with two chapters on biological effects, L. A. Frizzel on in vitro and non-human systems including plants and G. ter Haar on clinical applications. Each chapter has its own reference list, and there is an index for the volume as a whole.—**K.L.**

## Books Received

**Conservation Farming on Steep Lands**. W. C. Moldenhauer and N. W. Hudson, Eds. Soil and Water Conservation Society, Ankeny, IA, 1988. xiv, 296 pp., illus. $25. From a workshop, San Juan, Puerto Rico, March 1987.

**Consider a Spherical Cow**. A Course in Environmental Problem Solving. John Harte. University Science Books, Mill Valley, CA, 1988. xvi, 283 pp., illus. Paper, $18.

**Coordinates in Geodesy**. Siegfried Heitz. Springer-Verlag, New York, 1988. xii, 255 pp. Paper, $39.50. Translated and revised from the German edition (Bonn, 1985).

**Coordination of Observation Projects in Astronomy**. C. Jaschek and C. Sterken, Eds. Cambridge University Press, New York, 1988. xii, 270 pp., illus. $49.50. From a conference, Strasbourg, France, Nov. 1987.

**Crisis Stability and Nuclear War**. Kurt Gottfried and Bruce G. Blair, Eds. Oxford University Press, New York, 1988. xii, 354 pp. $29.95; paper, $10.95.

**Critical Levels in the Development of Natural Systems**. Alexey V. Zhirmunsky and Victor I. Kuzmin. Springer-Verlag, New York, 1988. x, 170 pp., illus. $69.50. Revision of *Critical Levels in the Developmental Processes of Biological Systems*.

**Critical Observations Versus Physical Models for Close Binary Systems**. Kam-Ching Leung, Ed. Gordon and Breach, New York, 1988. xvi, 472 pp., illus. $95. From a colloquium, Beijing, China, Nov. 1985.

**Crystallographic Statistics in Chemical Physics**. An Approach to Statistical Evaluation of Internuclear Distances in Transition Element Compounds. F. Valach, J. Ondráček, and M. Melník. Springer-Verlag, New York, 1988. x, 185 pp., illus. $99.50. Inorganic Chemical Concepts, vol. 12.

**CSL '87**. E. Börger, H. Kleine Büning, and M. M. Richter, Eds. Springer-Verlag, New York, 1988. vi, 346 pp., illus. Paper, $25.70. Lecture Notes in Computer Science, vol. 329. From a workshop, Karlsruhe, F.R.G., Oct. 1987.

**Emanuel Swedenborg**. A Continuing Vision. Robin Larsen *et al.*, Eds. Swedenborg Foundation, New York, 1988. xvi, 558 pp., illus. $75.

**The Encyclopedic Dictionary of Science**. Bernard Dixon *et al.* Facts on File, New York, 1988. 256 pp., illus. $29.95.

**The Human Brain**. Paul Glees. Cambridge University Press, New York, 1988. vii, 204 pp., illus. $59.50. Revision of *Das menschliche Gehirn* (Stuttgart, 1968).

**Human-Computer Interaction**. Psychonomic Aspects. Gerrit C. van der Veer and Gijsbertus Mulder. Springer-Verlag, New York, 1988. xiv, 458 pp., illus. $79. Based on a conference, Amsterdam, The Netherlands, Dec. 1985.

**Increasing Small Ruminant Productivity in Semi-Arid Areas**. E. F. Thomson and F. S. Thomason, Eds. Kluwer, Norwell, MA. 1988. x, 296 pp., illus. Current Topics in Veterinary Medicine and Animal Science, vol. 47. From a workshop, Aleppo, Syria, Nov.-Dec. 1987.

**Inhalation Toxicology**. The Design and Interpretation of Inhalation Studies and Their Use in Risk Assessment. U. Mohr *et al.*, Eds. Springer-Verlag, New York, 1988. xiv, 318 pp., illus. $98. International Life Sciences Institute Monograph Series.

**International Classification in Psychiatry**. Unity and Diversity. Juan E. Mezzich and Micahel von Cranach, Eds. Cambridge University Press, New York, 1988. xxii, 390 pp. $59.50. From a conference, Montreal, Quebec, June 1985.

**Interpreting Spectra of Organic Molecules**. Thomas N. Sorrell. University Science Books, Mill Valley, CA, 1988. xii, 175 pp., illus. Paper, $18. A Series of Books in Organic Chemistry.

**Neuroimmunoendocrinology**. J. Edwin Blalock and Kenneth L. Bost, Eds. Karger, Basel, 1988. x, 165 pp., illus. $92.75. Progress in Allergy, vol. 43.

**New Ideas in Astronomy**. F. Bertola, J. W. Sulentic, and B. F. Madore, Eds. Cambridge University Press, New York, 1988. x, 349 pp., illus. $54.50. From a conference, Venice, Italy, May 1987.

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