planetary motion attest to an enormous gap between his conceptualization of the problem and evidence for his conclusions. As ungracious as it was to Kepler and Hooke, Newton's defense of his claim to the ellipse and the inverse-square rule appears less petty and more warranted when viewed in the context of *his* program.

That disagreement aside, I find Meanest Foundations and Nobler Superstructures to be an excellent resource in the history of science and particularly valuable for its recognition of Hooke's scientific style.

## **Biophysics: An Introduction**

Rodney M. J. Cotterill Wiley, New York, 2002. \$115.00, \$39.95 paper (395 pp.). ISBN 0-471-48537-3, ISBN 0-471-48538-1 paper

When I started reading Rodney Cotterill's Biophysics: An Introduction, I got bogged down because the first part deals with energies, forces, and the making and breaking of bonds, and includes appendixes on quantum me-

chanics and the hydrogen atom. Is there any biophysics here? Read on. One soon learns about useful biophysical techniques ranging from x-ray diffraction to optical tweezers; about DNA, RNA, and proteins; about energy production, including photosynthesis; about membranes and their excitation; and about biological movement and its control. That last topic leads to a treatment of higher brain function, the focus of the author's current research. Cotterill even offers an illuminating discussion of consciousness and free will, topics that are rarely, if ever, seen in books on biophysics.

*Biophysics* is not an in-depth treatment of a few subjects but a broad introductory survey text-from atom to Adam. It is based on a course Cotterill taught for many years at the Technical University of Denmark in Lyngby. The treatment is concise, balanced, and readable. Each chapter includes exercises and suggestions for further reading. Added material, including solutions to exercises, can be found on the author's Web site. The book is worth considering as a text for an introductory course for undergraduates.

> Howard C. Berg Harvard University Cambridge, Massachusetts

## **Gerhard Herzberg: An Illustrious Life** in Science

Boris Stoicheff NRC Press, Ottawa and McGill-Queen's U. Press, Montreal, 2002. \$49.95 (468 pp.). ISBN 0-660-18757-4

Boris Stoicheff has done a magnificent job in writing Gerhard Herzberg, a scholarly and loving biography of the great spectroscopist who was his close friend for almost 50 years. Noted for his own work in Raman spectroscopy and nonlinear optics, Stoicheff spent the early years of his career (1951–64) in Herzberg's spectroscopy laboratory at the National Research Council (NRC) in Ottawa, Canada. Herzberg was at home in three communities: physics, in which he had formal degrees and did most of his research; chemistry, in which he was awarded the Nobel Prize; and astronomy, his first love, in which he made important spectroscopic identifications.

Stoicheff's book provides an intimate picture of Herzberg the man and the details of his environment. Throughout the text, one sees photographs of him with colleagues, friends,



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