

trade associations that chronic exposure to electromagnetic fields in the environment produced by power lines, cellular telephones, and radio and television antennas pose no risk to human health because these electromagnetic fields do not cook or cause shock. A naïve reader would have no idea that the chapter represents only the industry viewpoint regarding possible health hazards; opposing theory and data are absent. Further, whatever one's view about the industry rationale regarding the electropathology of fields, the chapter is badly out of place in a book that claims to be focused on short-term reactions to electrical current.

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APPLIED BIOELECTRICITY: FROM ELECTRICAL STIMULATION TO ELECTROPATHOLOGY.

*By J Patrick Reilly; with chapters by Hermann Antoni, Michael A Chilbert, and James D Sweeney. New York: Springer. \$89.95. xix + 563 p; ill.; index. ISBN: 0-387-98407-0. 1998.*

The expressed goal of this book is to describe theory and measurements dealing with acute biological effects of electrical current. This material is covered in the first 10 chapters; one chapter describes heart pacemakers, but the major emphasis is on electrical shock and thermal injuries produced by high voltages and high currents.

The ability of electricity to generate heat and cause shocks has long been known. Models that explain these phenomena on the basis of the Hodgkin-Huxley equations and Joule heating are described in many books, including one by the author (1992. *Electrical Stimulation and Electropathology*. Cambridge (UK): Cambridge University Press). The treatment here is systematic, but few new data have been obtained in the last 20 years, probably because the intellectual content of the subject, as presently understood, has been exhausted.

The problems with the final chapter are more serious. It advances the position of several industrial