This Week in Science

Two Plus Two Equals Five


Head Start at 25: False Start, Sure Future ■ Can There Be “Success for All”?

DOE’s Born-Again Solar Energy Plan

Who Should Study Radiation Effects?

Stanford Psychiatry Deal Falls Through ■ Problem Foreshadowed at Harvard

Trials and Tribulations of AIDS Drug Testing

Paleontology by Bulldozer

Physicists Tackle Theory, Tubes, and Temperature: Anyon Superconductivity? ■ 101 Uses for Tiny Tubules ■ Brrr! How Cold Is It?

Fiber Fracas at FASEB

“Rocking” on the Banks of the Columbia River


Observational Constraints on the Global Atmospheric CO2 Budget: P. P. TANS, I. Y. FUNG, T. TAKAHASHI

Sonochemistry: K. S. SUSLICK

Neurotrophin-3: A Neurotrophic Factor Related to NGF and BDNF: P. C. MAISONPIERRE, L. BELLUSCIO, S. SQUINTO, N. Y. IP, M. E. FURTH, R. M. LINDSAY, G. D. YANCOPoulos

SCIENCE is published weekly on Friday, except the last week in December, and with a supplement in March by the American Association for the Advancement of Science, 1333 H Street, NW, Washington, DC 20005. Second-class non-profit postage (publication No. 4844(6)) paid at Washington, DC, and at an additional entry, Copyright © 1990 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription ($1 issues): $75. Domestic institutional subscription ($1 issues): $120. Foreign postage extra: Canada $46, other (surface mail) $46, airmail via Amsterdam $85. First class, airmail, school-year, and student rates on request. Single copy sales: Current issue, $3.50; back issues, $5.00. Biotechnology issues, $6.00 (for postage and handling, add per copy $0.50 U.S., $1.00 all foreign); Guide to Biotechnology Products and Instruments, $20 (for postage and handling add per copy $1.00 U.S., $2.00 all foreign). Bulk rates on request. Authorization to photocopy material for internal or personal use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of $1 per copy plus $0.10 per page is paid directly to CCC, 27 Congress Street, Salem, Massachusetts 01970. The identification code for SCIENCE is 0036-8075/83 $1 + .10. Change of address: allow 6 weeks, giving old and new addresses and 11-digit account number. Postmaster: Send Form 3579 to Science, P.O. Box 1723, Riveriv, NJ 08077. Science is indexed in the Reader’s Guide to Periodical Literature and in several specialized indexes.

The American Association for the Advancement of Science was founded in 1848 and incorporated in 1874. Its objectives are to further the work of scientists, to facilitate cooperation among them, to foster scientific freedom and responsibility, to improve the effectiveness of science in the promotion of human welfare, to advance education in science, and to increase public understanding and appreciation of the importance and promise of the methods of science in human progress.
The micrograph on the cover shows interparticle collisions induced by ultrasound between tin and iron particles about 20 micrometers in size. The velocity of such collisions can be as high as 500 meters per second (1100 miles per hour). The elemental composition dot map was produced by scanning Auger electron spectroscopy and shows tin in orange and iron in blue. See page 1439. [Photograph courtesy of Stephen J. Doktycz on instrumentation in the Center for Microanalysis of Materials, University of Illinois at Urbana-Champaign]