### Editorial

- 701 World Competition in Biotechnology

### Letters

- 705 College Calculus: How Should It Be Taught?: M. M. Greller, A. Ralston
- The 3 K Microwave Background and Olbers' Paradox: P. Marmet
- Biology Teaching: S. L. Weinberg

### News & Comment

- 710 Europe Seeks Strategy for Biology
- Focus on the Genome
- Field Test Data Inadequate, OTA Says
- Science Budget Squeeze and the Zero Sum Game
- Anti-Acne Drug Poses Dilemma for FDA
- Fresh Look at Acid Rain
- Toxic Waste R&D Effort Stalled
- OECD Sets Guidelines for Cooperation
- NAS Elects New Members
- Animals of Invention

### Research News

- 719 Obstacles to an AIDS Vaccine
- Mathematics at 100
- Exploiting the Insights from Protein Structure
- A New Tool Maker in the Hominid Record?: One Species... One Tool

### Articles

- 740 Segregation of Form, Color, Movement, and Depth: Anatomy, Physiology, and Perception: M. Livingstone and D. Hubel
- 750 Supernova 1987A!: S. E. Woosley and M. M. Phillips
- 760 The Design of Molecular Hosts, Guests, and Their Complexes: D. J. Cram

### Research Articles

- 768 Visualizing Gene Expression in Time and Space in the Filamentous Bacterium *Streptomyces coelicolor*: A. Schauer, M. Ranes, R. Santamaria J. Guirarro, E. Lawlor, C. Mendez, K. Chater, R. Losick

### Reports

- 777 Direct Observation of the Femtosecond Excited-State cis-trans Isomerization in Bacteriorhodopsin: R. A. Mathies, C. H. B. Cruz, W. T. Pollard, C. V. Shank
Hand of *Paranthropus robustus* from Member 1, Swartkrans: Fossil Evidence for Tool Behavior: R. L. Susman

Insulin-Resistant Diabetes Due to a Point Mutation That Prevents Insulin Proreceptor Processing: Y. Yoshimasa, S. Seino, J. Whittaker, T. Kakehi, A. Kosaki, H. Kuzuya, H. Imura, G. I. Bell, D. F. Steiner


Changing the Identity of a tRNA by Introducing a G-U Wobble Pair Near the 3' Acceptor End: W. H. McClain and K. Foss

Middle Mississippian Blastoid Extinction Event: W. I. Ausich, D. L. Meyer, J. A. Waters

Directional Selection and the Evolution of Breeding Date in Birds: T. Price, M. Kirkpatrick, S. J. Arnold


Hospital Structure and Performance, reviewed by M. L. Fennell Pottery Analysis, R. L. Rands Sedimentation in the African Rifts, R. G. Coleman Geology and Geochronology of Abyssal Plains, D. E. Buckley Books Received

PC Software for Artificial Intelligence Applications: H. Epp, M. Kalin, D. Miller

Automated Sample Handling Microcentrifuge Tube Inverted Microscope Graphics Supercomputer Fast 3-D Graphics on PCs X-ray Fluorescence Analyzer Literature

COVER Supernova 1987A—an exploding star. On 23 February 1987, light and neutrinos reached Earth from the brightest supernova in almost 400 years. "Before (left) and after (right)" photos show the star that exploded and the supernova shortly after outburst. Photographs were taken using the 3.9-meter Anglo-Australian Telescope in New South Wales, Australia. See page 750. [Courtesy of David Malin, copyright 1987, the Anglo-Australian Telescope Board]