

WILL AMERICANS BE SCIENTIFICALLY LITERATE BEFORE COMET HALLEY RETURNS IN 2061?

Project 2061—a long-term effort launched by the AAAS—is designed to help make the answer "Yes—long before!"

The first phase of this massive nationwide effort to reform U.S. science education has produced six reports that recommend in detail what all citizens should know about science, mathematics, and technology.

They consist of an integrated report, *Science for All Americans* (AAAS order no. 89-01S), by the National Council on Science and Technology Education, and reports by five independent panels: *Biological and Health Sciences* (#89-02S), *Mathematics* (#89-03S), *Physical and Information Sciences and Engineering* (#89-04S), *Social and Behavioral Sciences* (#89-05S), and *Technology* (#89-06S).

Send orders giving titles and AAAS order numbers—and a check, money order, or purchase order (made out to AAAS)—to AAAS Books, Dept. 2061, P.O. Box 753, Waldorf, MD 20604.

Prices: Science for All Americans: \$14.50 (AAAS members, \$11.50), 10-49 copies \$9.25 each, 50 or more \$8 each; each panel report: \$7.50 (AAAS members, \$6), 10-49 copies \$3.50 each, 50 or more \$3 each; all six reports (order no. 89-12X): \$35 (AAAS members, \$28), 10-49 sets \$18, 50 or more \$15.50. (For shipments to California, add 6% sales tax.)



PROJECT 2061

American Association for the Advancement of Science

fortuitously shifted to almost exactly the expected diamond diffraction angles.

Our present result—namely the absence of any (appreciably) crystalline diamond diffraction features—has also been verified in a preliminary synchroron study of ours at the National Synchrotron Light Source at Brookhaven. It thus remains for us to determine the detailed structure of these interesting films whose short-range bonding is clearly sp^3 and whose Raman spectrum shows evidence mainly of a broad peak at $\sim 1550 \text{ cm}^{-1}$ (3).

S. C. Moss Department of Physics, University of Houston, Houston, TX 77204-5504

REFERENCES AND NOTES

- 1. J. L. Robertson et al., Science 243, 1047 (1989).
- J. L. Robertson et al., in Proceedings, MRS Symposium on "Optical Materials: Processing and Science," C. Ortiz and D. B. Poker, Eds. (Materials Research Society, Pittsburgh, PA, in press).
- Pittsburgh, PA, in press).

 3. F. Adar, Y. Lifshitz, J. W. Rabalais, unpublished data
- 4. We thank M. Geis for suggesting to us that some of our results could be observed on pure silicon.

Space Facility

We are reluctant to allow Eliot Marshall's 21 April article "National Academy panel rejects the case for a mini-space station" (News & Comment, p. 282) to stand as a record of what the study committee said.

First, the Commercially Developed Space Facility (CDSF) has rarely been considered a "mini-space station." In the recent National Research Council (NRC) White Paper on Space Policy, the National Academies go on record as believing "a station is essential to establish the feasibility of human exploration beyond the Earth's orbit." Clearly, a man-tended CDSF would not meet this criterion. It is misleading to continuously refer to the CDSF as a mini-station; certainly none of its supporters made that claim before the study committee.

The Academy report is faulted several times for "not examining the big station with the same rigor" with which it examined the CDSF. Indeed, the Academies were charged by the Office of Management and Budget and the National Security Council with an examination of the space station program in the summer of 1987, and a report was issued later that year. The present committee's charge was to assess the need for a CDSF *prior* to the station!

While the article observes the CDSF had support from "budget cutters in Congress," a quick reading of the introduction of the report would have revealed that the study originated at the request of both houses of

Congress, rather than NASA, in an effort to secure an objective assessment of whether anticipated national needs for microgravity processing would exceed likely facilities in the period preceding the station.

The article states that NASA converted CDSF high-level endorsements to "a standard procurement request." The procurement process that NASA undertook last spring was far from standard, for example, no preliminary early phase studies were conducted or sought. Other erroneous details include reference to a private Spacelab (which should have read Spacehab), and two references to 11 March as the release date for the report (which should have read 10 April).

ROBERT H. KORKEGI

Aeronautics and Space Engineering Board Commission on Engineering and Technical Systems, National Research Council, Washington, DC 20418

Response: Former Senator William Proxmire (D-WI), who backed CDSF when he was chairman of the appropriations subcommittee for space, certainly saw it as a "mini" alternative to NASA's space station, which he called the "space palace." However, unlike the big station, CDSF would not permit astronauts to stay aboard indefinitely, but only for 3-week visits. Advocates said that CDSF could be used as a developmental outpost until the \$16-billion big station arrived, especially if the big station were delayed beyond the 1996 due date. The Academy report assumes that the big station will be in place by 1998 and finds no useful role for CDSF before then.

—Eliot Marshall

Erratum: On page 1556 of Robert Pool's Research News article "New equipment roundup dazzles scientists" (24 Mar., p. 1554), the photographs of the automated purification system and the low-level light detector were inadvertently interchanged.

Erratum: In the Research Article "Hydrogen tunneling in enzyme reactions" by Y. Cha et al. (10 Mar., p. 1325), the first equation in reference 28 on page 1329 was incorrectly printed. It should have read

$$k_{\rm L}/k_{\rm T} = \ln\{1 - \int \left[\frac{(^3{\rm H}/^{14}{\rm C})f}{(^3{\rm H}/^{14}{\rm C})_x} \right] \} \quad ({\rm L} = {\rm H,D})$$

Erratum: In the the caption of figure 2 on page 59 of the Research Article "Purification and characterization of mouse hematopoietic stem cells" by G. J. Spangrude et al. (1 July 1988, p. 58), the last sentence should have begun, "By linear regression analysis, one splenic colony was formed per ten hematopoietic stem cells transferred [frequency = $0.095 \pm 0.08 \text{ (SD)}$]."... In the same article, the fourth sentence of the last paragraph on page 60 should have read, "In contrast, transfer of as many as 900 Thy-1% Lin Sca-1 cells did not save the mice."

Erratum: In William Booth's short article on women in science, "Oh, I thought you were a man" (News & Comment, 27 Jan., p. 475), Sallie Watkins' affiliation was incorrectly given as the University of Southern California. Her correct affiliation is the University of Southern Colorado.