

Science[®] News

A Science Service Publication
Vol. 107/May 3, 1975/No. 18
Incorporating Science News Letter

Of the Week

Laser separation of isotopes	284
Universe accelerating outward?	285
Fetal research okayed	285
Physicists on reactor safety	286
Mapping cancer risks	286
Early clue to cervical cancer	287
Insight on skin fungi	287
Primate shortage for science	288
Ten endangered animals	288
NAE honors inventor	288

Research Notes

Space	289
Natural Sciences	289

Articles

Apologia for accelerators	290
Mathematics of randomness	292

Departments

Books	282
Letters	283
Off the Beat	294

COVER: A photo from FermiLab's 15-foot bubble chamber shows one of the newest and biggest of its kind, a prime example of the most advanced particle physics equipment. Will there be another generation? Physicists are trying to convince. See p. 290. (Photo: FermiLab)

Publisher E. G. Sherburne Jr.
Editor Kendrick Frazier
**Senior Editor and
Physical Sciences** Dietrick E. Thomsen
**Senior Editor and
Behavioral Sciences** Robert J. Trotter
Biomedical Sciences Joan Arehart-Treichel
Chemistry and Biology Janet H. Weinberg
Science and Society John H. Douglas
Space Sciences Jonathan Eberhart
Art Director Dale Appleman
Assistant to the Editor Esther Gilgoff
Books Margit Friedrich
Advertising Scherago Associates, Inc.
11 W. 42nd St.
New York, N.Y. 10036
Fred W. Dieffenbach
Sales Director

Copyright © 1975 by Science Service, Inc.,
1719 N St., N.W., Washington, D.C. 20036.
Republication of any portion of SCIENCE NEWS
is strictly prohibited.

Subscription Department
231 West Center Street
Marion, Ohio 43302

Subscription rate: 1 yr., \$10; 2 yrs., \$18; 3 yrs.,
\$25. (Add \$2 a year for Canada and Mexico, \$3
for all other countries.) Change of address:
Four to six weeks' notice is required. Please
state exactly how magazine is to be addressed.
Include zip code.

Printed in U.S.A. Second class postage paid at
Washington, D.C. Established as Science News
Letter® in mimeograph form March 13, 1922.
Title registered as trademark U.S. and Canadian
Patent Offices.

Published every Saturday by SCIENCE SER-
VICE, Inc., 1719 N St., N.W., Washington, D.C.
20036. (202-785-2255). Cable SCIENSERV.

May 3, 1975

To the Editor

Teaching science

I have been receiving your magazine for the past two years and am constantly delighted at the clarity and scope of your articles. Many of my students are able to learn of the latest research developments in their fields of study this way and are avid readers of your publication.

I was, naturally, extremely interested in your latest report on science education. The apparent dearth of quality science reading materials, despite efforts to the contrary, has long disturbed me. Younger readers especially would greatly benefit from a well-thought-out coordinated program. Surely, I was not the only one who noticed the irony of the placement of an article regarding decreased scientific literacy alongside another which bemoaned the decrease in available jobs and funding?

As more scientists become aware of the necessity to integrate a science communications program all through the primary grades we will be able to look forward to a jump in our popularity and understanding. Perhaps more emphasis should be placed upon scientific museums and exhibits. Certainly an article describing, explaining and comparing the present state of these Halls of Science would be of value. (The Hall of Science in Toronto, Canada, or the Smithsonian Institution are great potential resources!) I would look forward to a thoughtful evaluation and comparative description and wonder if any has been attempted.

Esther Sobel
Science Coordinator
Manhattan Day School
New York, N.Y.

(An article on science museums is in preparation.—Ed.)

Vinyl cyanide in space

Indicating that vinyl cyanide has been found in interstellar space (SN: 3/1/75, p. 137) opens channels of thinking in my mind. Though vinyl cyanide was a well known chemical prior to World War II and was, in fact, at that time made from ethylene, albeit indirectly, it did not become an article of commerce until technology was developed for making it from acetylene. At about that time the major producer of vinyl cyanide, American Cyanamid Co., decided that a more salable

name was acrylonitrile and it is under that name that it became a true article of commerce and a major fiber precursor. More recently, Standard Oil Co. of Ohio has commercialized on a worldwide basis a process for making acrylonitrile from propylene. These facts are pertinent to your speculation, "the presence of vinyl cyanide also suggests the presence of the simplest olefin ethylene . . ." because to my knowledge there is no facile way for acrylonitrile to decompose to ethylene, nor is its synthesis from ethylene straightforward.

Another noteworthy point is the fact that one wonders whether the vinyl cyanide "in space" had a terrestrial origin. It's only been in recent years that it has been a major article of commerce. If, in fact, it did have extraterrestrial origins then one might imagine that it came from propylene rather than ethylene, or at least from acetylene.

Finally, it is noteworthy that Dr. James Idol of the Standard Oil Co. of Ohio will this month receive the American Chemical Society's Award for Creative Invention for his discovery of the route by which nearly all acrylonitrile and many of its derived products called acrylates are made.

B. J. Luberoff, Ph.D., P.E.
Editor, CHEMICAL TECHNOLOGY
American Chemical Society
Summit, N.J.

Fevers and survival

Regarding the article, "Fevers: A means of survival?" (SN: 4/12/74, p. 237), I have been under the impression that this phenomenon has been known for years. The example that is alluded to in several texts (i.e. Chandler & Reed, *Introduction to Parasitology*) is that of treating cases of syphilis, prior to the advent of antibiotics, by purposely innoculating the patient with *Plasmodium knowlesi*. In rhesus monkeys this causes a rapidly fatal malarial infection but in humans results only in a relatively mild infection which apparently induces sufficient fever to be destructive to the syphilis organisms.

Phillip A. Nickel, Ph.D.
Department of Biological Sciences
California Lutheran College
Thousand Oaks, Calif.

Address communications to Editor,
Science News, 1719 N Street, N.W.
Washington, D.C. 20036

SCIENCE SERVICE

Institution for the Popularization of Science founded 1921; a nonprofit corporation

Board of Trustees—Nominated by the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE: **Deborah P. Wolfe**, Queens College of City University of New York; **Bowen C. Dees**, The Franklin Institute; **Atheistan Spilhaus**, National Oceanic and Atmospheric Administration. Nominated by the NATIONAL ACADEMY OF SCIENCES: **Gerald F. Tape**, Associated Universities; **Allen V. Astin**, National Academy of Sciences; **Glenn T. Seaborg** (President), University of California, Berkeley. Nominated by the NATIONAL RESEARCH COUNCIL: **Gerald Holton**, Harvard University; **Joseph W. Berg Jr.**, National Research Council; **Aaron Rosenthal**, National Academy of Sciences. Nominated by the JOURNALISTIC PROFESSION: **Norman Cousins**, "World"; **Julius Dusha**, Washington Journalism Center; **O. W. Riegel** (Secretary), Washington and Lee University. Nominated by E. W. SCRIPPS TRUST: **Milton Harris** (Treasurer), Washington, D.C.; **Edward W. Scripps II** (Vice President and Chairman of the Executive Committee), Edward W. Scripps Trust; **John Troan**, Pittsburgh Press.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Things of Science: Ruby Yoshioka.

283