

SCIENCE NEWS®

The Weekly Newsmagazine of Science

A Science Service Publication
Volume 140, No. 23, December 7, 1991

Alfred Scott McLaren	Publisher
Patrick Young	Editor
Laurie Jackson	Managing Editor
Vaughan	Editor
Janice Rickerich	Production/Design Director
Janet Raloff	Senior Editor
Bruce Bower	Environment/Policy
Elizabeth Pennisi	Behavioral Sciences
Richard Monastersky	Chemistry/ Materials Science
Ron Cowen	Earth Sciences
Carol Ezzell,	General Science/ Space Sciences
Kathy A. Fackelmann	Life Sciences/ Biomedicine
Ivars Peterson	Mathematics/Physics
Larry Norland	Editorial Assistant
Karen Schmidt	Science Writer Intern
Liz Marshall	Books/Resource Manager
Donald R. Harless	Advertising/Business Manager

SCIENCE NEWS (ISSN 0036-8423) is published weekly on Saturday, except the last week in December, for \$39.50 for 1 year or \$68.00 for 2 years (foreign postage \$6.00 additional per year) by Science Service, Inc., 1719 N Street, N.W., Washington, DC 20036. Second-class postage paid at Washington, DC, and additional mailing office. **POSTMASTER:** Send address changes to SCIENCE NEWS, 231 West Center Street, Marion, OH 43305. Change of address: Four to six weeks' notice is required — old and new addresses, including zip codes, must be provided.

Copyright © 1991 by Science Service, Inc. Title registered as trademark U.S. and Canadian Patent Offices. Printed in U.S.A.

Editorial and Business Offices:
1719 N St., N.W., Washington, DC 20036
(202-785-2255)

Republication of any portion of SCIENCE NEWS without written permission of the publisher is prohibited.

Subscription Department:
231 West Center Street, Marion, OH 43305
For new subscriptions only, call 1-800-247-2160.
For customer service, call 1-800-347-6969.

Letters

Getting together on lasers

It is a pity that Ivars Peterson did not get to mention that the university-based research cited in "Pushing lasers on a chip into the blue" (SN: 9/21/91, p.183) was actually part of a consortium effort supported by the Defense Advanced Research Projects Agency. This group of seven universities set their sights toward the realization of a number of semiconductor optoelectronic devices in the blue-green, of which the diode laser was a prime target. That this target has now been reached within our group as well (most immediately by the Brown-Purdue collaboration, with device performance exceeding that of the 3M accomplishment) is really a credit to these university groups working together. Such broadly based research efforts in academia that yield concrete results are quite rare.

A very good illustration of this coupling is indeed the collaboration between Notre Dame

This Week

- 372 Animals Seared by Deep-Sea Eruptions
- 372 Crystal structure solves virus puzzle
- 373 Bikes: The helmet's value
- 373 Uranium displays rare type of radioactivity
- 374 Aspirin slashes colon-cancer death rates
- 374 Distant gas cloud hints at early starbirth
- 375 Lasers offer surgical control over reactions
- 375 Jerusalem yields 'natural' waterworks

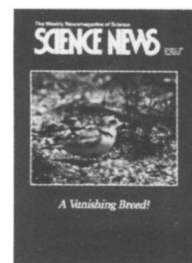
Research Notes

- 380 Anthropology
- 380 Earth Science

Articles

- 376 Same Family, Different Lives
- 382 Plight of the Plover

Cover: A male piping plover guards a nest of speckled eggs during breeding season at a North American beach. New research suggests that people-jammed beaches may put these pocket-sized shorebirds at risk of extinction. (Photo courtesy of Lang Elliott for the Cornell Laboratory of Ornithology)



Departments

- 371 Letters
- 381 Books

Science Service, a nonprofit corporation founded in 1921, gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase science and mathematics literacy among the young and minorities, and to advance the public understanding of science in general.

Board of Trustees — *Chairman*, Glenn T. Seaborg; *Vice Chairman*, Gerald F. Tape; *Treasurer*, Willis Harlow Shapley; *Joseph W. Berg Jr.*; *Robert W. Fri.*; *David A. Goslin*; *J. David Hann*; *Leon M. Lederman*; *Shirley M. Malcom*; *Elena O. Nightingale*; *Ben Patrusky*; *H. Guyford Stever*; *Sanford J. Ungar*; *Deborah P. Wolfe.*

Honorary Trustees — *Edward Bliss Jr.*; *Bowen C. Dees*; *O. W. Riegel*; *John Troan.*
President: Alfred Scott McLaren; **Vice President and Business Manager:** Donald R. Harless.

and Brown. By combining the materials science expertise at Notre Dame and the expertise in optical physics and laser devices at Brown, we were jointly able to identify the particular quantum well (from about half a dozen candidates) that has turned out to be the best choice so far for the diode laser. In addition, there is an aspect to the optical gain and laser action which we have been able to show is quite unique to these lasers, adding particular flavor to their future design.

Arto V. Nurmikko
Director

Center for Advanced Materials Research
Brown University
Providence, R.I.

Carbon carcinogens

Considering the fact that EPA views diesel particulates as "a probable human carcinogen" ("Busing away particulates," SN: 9/21/91, p.189), it seems logical to pose the question of whether buckyballs — which also come from soot — might also be carcinogenic. The reac-

tivity of these new chemical toys might give pause to those who are planning to create large quantities for research labs. In uncontrolled circumstances, scientists might find themselves becoming subjects of their own experiments.

Vincent Egly
Ligonier, Pa.

IQ: What's average?

Aren't IQs normalized so that the average IQ is always 100? If so, why say that "average IQs rose dramatically from 1952 to 1982 in 14 industrial nations" ("The educated IQ," SN: 9/21/91, p.187)?

Allen Arata
Hawthorne, Calif.

Average relative scores on IQ tests have risen sharply. These scores are then normalized.

—B. Bower

Letters continued on p.378

DECEMBER 7, 1991

371