

ENGINEERING AND SCIENCE

IN THIS ISSUE



ON OUR COVER is a graphic demonstration of what makes smog. The hand belongs to Dr. A. J. Haagen-Smit, Caltech professor of bio-organic chemistry. He has just applied a stream of ozone to a mixture of hydrocarbons cupped in his hand—which results in a dense cloud of smog.

Dr. Haagen-Smit has been conducting research on smog since 1949. For a 1958 progress report, see page 5.

“WHAT’S HAPPENING to Engineering Education,” on page 16 of this issue, has been adapted from a talk given by Frederick C. Lindvall at the annual Alumni Seminar Day held on the Caltech campus on April 12. Dr. Lindvall is professor of electrical and mechanical engineering at Caltech, and chairman of the division of civil, electrical and mechanical engineering and aeronautics. He is also currently president of the American Society for Engineering Education, whose purpose is the advancement of engineering education, research and teaching.

PICTURE CREDITS

Cover Gene Trindl
p. 8 Southern California Edison Company
p. 11 Nolan Patterson
pps. 12, 13 Graphic Arts, Caltech
p. 14 Pasadena Independent-Star News
p. 15 Harvey

June, 1958

JUNE, 1958

VOLUME XXI

NUMBER 9

PUBLISHED AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY

CONTENTS

In This Issue 3

Progress in Smog Control 5

Air pollution control in the Los Angeles area can be achieved only by the step-by-step control of numerous sources. Here is a report on how we are making out.

by A. J. Haagen-Smit

The Month at Caltech 12

What's Happening to Engineering Education 16

Engineering education is being pulled into new and different directions. Shall we concentrate on fundamental education or go in the direction of specialized training?

by Frederick C. Lindvall

Personals 20

Alumni News 26

STAFF

Publisher Richard C. Armstrong '28
Editor and Business Manager Edward Hutchings, Jr.
Editorial Assistant Gerda Chambers
Student News Brad Efron '60
Student Photographers Dennis L. Paul '59
William R. Schmus '60

Published monthly, October through June, at the California Institute of Technology, 1201 East California St., Pasadena, Calif., for the undergraduates, graduate students and alumni of the Institute. Annual subscription \$4.50 domestic, \$5.50 foreign, single copies 50 cents. Entered as second class matter at the Post Office at Pasadena, California, on September 6, 1939, under act of March 3, 1879. All Publisher's Rights Reserved. Reproduction of material contained herein forbidden without written authorization. Manuscripts and all other editorial correspondence should be addressed to: The Editor, *Engineering and Science*, California Institute of Technology. © 1958 Alumni Association, California Institute of Technology.