February 2, 1981 Volume 59, Number 5 CENEAR 59 (5) 1-50 ISSN 0009-2347

Cover: Photo by C&EN's David J. Hanson

# Chemical & Engineering



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#### The Departments

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## News of the Week

- Philadelphia's new law to regulate disposition of toxic chemicals in the city was developed by industry, citizen's group, and city government officials.
  Page 4
- Fourth-quarter sales, earnings for 19 of 40 largest U.S. chemical firms gained an average 11%, but for the full year after-tax profits declined 2.2% from 1979. Page 5
- Arco Chemical postpones construction of its first polymeric isocyanates plant, slated for Channelview, Tex., for possible improvements to its new process. Page 6
- Decontrol of oil prices met mixed industry reactions: chemical companies expect little effect but small refiners fear they will be forced out of business.
  Page 6

#### **Business**

Use of adhesives continues to climb; large number of manufacturers and wide diversity of end uses expected to maintain 6% average annual growth through 1985. Page 8

## International

■ Chemical production in West Germany takes a downturn with 4% drop in 1980 from 1979 after a decade of 3.5% average annual growth; prospects for 1981 are not particularly bright. Page 10

#### Government

- U.S. must boost funding for science and technology to increase productivity, improve the economy during the 1980's, says President's commission. Page 12
- Budgets of federal regulatory agencies are only slightly higher than last year, probably will be cut further. Page 13

#### **Science**

- Two different chemistries used in machines designed to synthesize DNA sequences automatically: the phosphite and phosphotriester methods. Page 17
- Studies of magnetic properties of two-dimensional materials challenge physicists and physical chemists. Page 19

## **Public Policy**

■ George Kistiakowsky champions arms control; born in prerevolutionary Russia, the man who devoted 20 years of his career to weapons building now turns his energies to prevention of nuclear war. Page 20

## **ACS News**

ACS committees issue official reports after board meeting in December; distribution of 1980 PRF funds outlined. Page 28