# CHEMISTRY & Regule TANK 1969

NUMBER TA DACES 170 180

100

Environmental quality

Plastics recycling



Recuie AUUT 1989

## NEWS

Royal commission reports on GEO releases...
ICI stops North Sea dumping... Contaminated land...
Consumers want UK food safety agency... ICI to build Taiwan plant...
World methanol market... Petrochemicals restructuring...
Food irradiation test found... Enimont receives assets...

430

#### NEWS REPORTS

#### Czech chemicals

Recently new laws were passed in Czechoslovakia to make joint ventures with foreign partners easier to set up. Ferry Biedermann reports on the INCHEBA international chemical fair held in Bratislava last month and the effects of perestroika on the Czech chemical industry.

US air pollution

436

Last month President George Bush announced his initiatives for combating acid rain, toxic air pollutants and urban smog in the USA. Lois Ember explains how these proposals will effect the US chemical industry.

437

## RECYCLING

Plastics Recycling Takes Off in the USA

Plastics recycling is booming in the USA; it is practical, environmentally sound, cost effective and potentially profitable. In the first of two articles Charles Kline outlines the US plastics industry's preliminary efforts at recycling.

440



# WATER QUALITY STANDARDS

**Environmental Quality Objectives and Effluent Control** 

Rex Agg and Thomas Zabel of the Water Research Centre discuss the UK's approach to the control of dangerous substances in the aquatic environment.

## ECOLOGICAL MONITORING

#### **Aquatic Toxicity of Complex Effluents**

With the increasing demand for environmental protection, a better understanding of the effects of complex mixtures on the aquatic ecosystem is needed. Richard Lloyd of MAFF's Directorate of Fisheries Research discusses the application and limitations of effluent bioassays to this problem.

449



#### PERKIN MEDAL ADDRESS

#### The Roots of Innovation

Union Carbide's Frederick Karol explores the idea of innovation by drawing upon his own experience in the development of the *Umpol* polyethylene process.

454

## COMMUNICATIONS TO THE EDITOR

Enantioselective microbial reduction of ferrocene aldehyde with baker's yeast.

Taeko Izumi, Toshimi Hino, Kezo Shoji, Kenryo Sasaki and Akira Kasahara 457

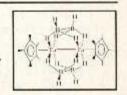
Shipping container floors as sources of chlorophenol contamination in non-hermetically sealed foods.

Frank B Whitfield, T H Ly Nguyen and C Ross Tindale 458
Acid-catalysed hydrolysis of ketone semicarbazones.

Edmund J Eisenbraum, Robert P Wesley, Ronald S Budhram and Brakmadeo Dewprashad. 459

#### HIGHLIGHTS

Cycloaddition reactions... useful results with reagents based on titanium, boron, zinc and sulphur... approaches to the polyether brevetoxins... the interplay of axial and planar chirality in ferrocenyl ligands... reactions of borohydride with tantalum complexes... activation of Si-H bonds.





Cover photograph: Courtesy of ACE Photo Agency.

Editor Nigel Davis

Assistant editors Andrew Miller (News) Ferry Biedermann, Lorraine Walters.
Editorial office 14-15 Belgrave Square, London SW1X 8PS, Telephone: 01-235-3681
Fax: 01-823-1698

Advertisement manager Geoff Harris.

Advertisement office Harris Associates, 5 George Lane, Royston, Heris SG8 9AR. Telephone: 0763-245322 Fax: 07632-45505.

Management committee J.C.L.Cox (chairman), D.E.Bays, A.J.B.Spaall, Editorial advisory board R. deB Ashworth, J.Counsell, E.R.Dinnis, J. Gregory, D. Hands, J.F. Kennedy, R.E. Malpas, L. McGroth, R.H. Prince, S.Shoop, J.M. Sidwick, R. Smelt, A. Wiscougn,

#### Chemistry and Industry

(ISSN 0009-3068) is published semi-monthly by the Society of Chemical Industry, 14-15
Belgrave Square, London SWIX 8PS. All orders, accompanied with payment, should be sent
directly to the Society of Chemical Industry, The Distribution Centre. Blacknorse Road,
Letchworth, Herts SG6 1HN, England, Annual subscription rate for 1989: UK 1128/88 Rest of
the world (excl Japan) 1152/09, USA 5245/09. Air freight and mailing in the USA by
Publications Expediting Inc. 200 Meacham Avenue, Elmont, New York 11905, USA Postmastersend address changer to Chemistry and Industry, Publications Expediting Inc. 200 Meacham
Avenue, Elmont, New York 11003. Second close pointage paid at Jamaica. New York 14431. All
other despatches nationed the UK by hulk airmoil within Europe, accelerated surface post outside
Europe, Printed in the UK by Swange the Printer Limited, Streagfeld Road, Heathfield, East
Sussex TN21 8HX, and at Granville House, 112 Bernondere Streagfeld Road. Heathfield, East