

NUMBER 21. PAGES 693-732 6 NOVEMBER 1989



NEWS

Explosion destroys Phillips plant . . . UFC not yet decided on chemistry funding . . . HSE regulates genetic releases . . . Government cuts R&D . . . Supermarkets fund research . . . Bush acts on pesticides . . . Industry attacks patent plans . . . Courtaulds splits . . . EVC recycles . . . Nobel prizes . . . New antibodies developed . . . German chemicals . . . Chemistry in the schools . . . New Shell plans . . . Soviet chemicals

NEWS REPORTS

ECMRA

The European Chemical Marketing and Research Association held its annual meeting last month. Ferry Biedermann reports from Paris. 702

Vitamins and disease

Julian Rose describes recent work to establish how the association between nutrients and disease prevention works.



BUILDING MATERIALS

A Decade of Cement

Peter Jackson, former chief chemist at Rugby Cement, describes how the manufacturing and marketing of Portland cement in the UK has changed over the past ten years.

Concrete Surface Permeability: Measurement and Meaning

John Figg of Arup Research and Development describes the theoretical basis of permeability studies, the equipment and methodologies involved, and reviews recent work in the area.



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CHEMICALS DISTRIBUTION

Transport: Striking a Balance

The Chemical Industries Association's Distribution Coordinator, Barry Whittaker, looks at how the chemical industry's transport problems have increased in the past two years as legislators have begun to favour the environmental lobby.

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COMMUNICATIONS TO THE EDITOR

An improved method for the synthesis of highly substituted alkyl phosphates including nucleoside 5'-phosphates.

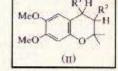
Diane Coe, Sabine L Flitsch, Hans Hilpert, Mark Liebster, Stanley M Roberts and Nicholas I Turner 724

A convenient synthetic route to precocene II. Robindra N Baruah

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Reaction of furoin with alkyl phosphites and triphenylphosphine.

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Preparation of the trianions of acetylacetone and acetoacetanilide and their reactions with selected electrophilic reagents for the synthesis of new heterocyclic compounds and related materials.

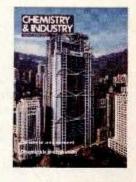
Charles F Beam, Margaret A Hines, Cynthia L Mazat, Dean C Duncan, Darrell D Beckman, Rene J Lachicotte, Rebecca C Tummons and Ned D Heindel

APPLIED HIGHLIGHTS

Electrochemical synthesis of conductive polymer membranes... separation of water/alcohol mixtures... catalysts for direct air oxidation of alkenes... electroformylation of organic halides... synthesising semiconductors.

FOOD FACTS

Vitamin C intake... vegetable fibre... vacuum-packed beef... musty taints... frying media... cholesterol disinformation... pyrroloquinoline quinone... mono-unsaturated fats in the diet.



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