JOURNAL OF THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS I

Organic and Bio-organic Chemistry

CONTENTS

PAGE
A new synthesis of pyrimido[4,5-e]-as-triazine 4-oxides by nitrosative cyclization of aldehyde uracil-6-yl-hydrazones in the presence of diethyl azodiformate By Fumio Yoneda, Tomohisa Nagamatsu, and Kazuko Shinomura
Reaction of sulphimides with electrophilic acetylenes By Paul Barraclough, Michael Edwards, Thomas L. Gilchrist, and C. John Harris
Cycloaddition reactions of cumulenes. Part IV. A novel mode of reaction of azomethine oxides with 1,1-dimethylallene; formation of a substituted piperidin-4-one By Giampietro Cum, Giovanni Sindona, and Nicola Uccella
Synthetic studies on terpenoids. Part XVIII. Stereocontrolled synthesis of (±)-1,2,3,4,4a,9,10,10aα-octahydro-1α-methylphenanthrene-1β,4aβ-dicarboxylic acid and the 7-methoxy-analogue: a potential intermediate for diterpenoid syntheses By Aluru Sudarsana Sarma, Ajoy Kumar Banerjee, and Phanindra Chandra Dutta
Synthesis of 24ξ , 25 -dihydroxyprovitamin D_3 By Stephen C. Eyley and Dudley H. Williams
Synthesis of 25-hydroxyprovitamin D_3 and 25 ξ ,26-dihydroxyprovitamin D_3 By Stephen C. Eyley and Dudley H. Williams
Natural acetylenes. Part XLIX. Polyacetylenes from <i>Dahlia scapigera</i> (A. Dietr.) Link and Otto var. scapigera f. scapigera and some <i>Dahlia</i> hybrids By Colin T. Bedford, Dipali Bhattacharjee, Jeremy R. F. Fairbrother, Sir Ewart R. H. Jones, Steve Safe, and Viktor Thaller
Reactions of carbonyl compounds with tervalent phosphorus reagents. Part VI. Benzoate esters and halogenophosphines By Norman J. De'ath, S. Trevor McNeilly, and J. Allen Miller
Oxidation of 2-ethylthioindoles with hydrogen peroxide. Oxidative migration of the ethylsulphonyl group By Tohru Hino, Hitoshi Yamaguchi, Mamoru Endo, and Masako Nakagawa
Synthesis and properties of methyl 3,4-dihydro-4-oxo-1 <i>H</i> -2-benzothiopyran-3-carboxylate and related thiopyrano-compounds By Richard M. Scrowston and David C. Shaw
Factors in the formation of isomerically and optically pure alkyl halides. Part XI. Vilsmeier reagents for the replacement of a hydroxy-group by chlorine or bromine By Derek R. Hepburn and Harry R. Hudson
An improved synthesis of 6-amino-1,2,3,4-tetrahydro-2-methylisoquinoline: elucidation of the stereochemistry of some diastereoisomers of 6-amino-2-methyldecahydroisoquinoline By IAN W. MATHISON and RICHARD R. TIDWELL

ii Contents

Chiroptical studies. Part LXXXIX. An empirical analysis of the circular dichroism of hexahydroindanones, bicyclo[4.2.0]octan-7-ones, and their polycyclic analogues By David N. Kirk and William Klyne	762
Metal-catalysed organic photoreactions. Photo-oxidations of αβ-unsaturated ketones and o-methylaceto- phenone in the presence of copper(II) salts By Tadashi Sato, Kotaro Tamura, Kazunori Maruyama, Osamu Ogawa, and Takashi Imamura	779
Metal-catalysed organic photoreactions. Photoreactions of 3,5-dimethylisoxazole with and without catalytic assistance by copper(II) salts By Tadashi Sato, Koichi Yamamoto, Keitaro Fukui, Kazuko Saito, Ken Hayakawa, and Shigeo Yoshiie	783
Metal-catalysed organic photoreactions. Photoreaction of αβ-unsaturated ketones in alcohols in the presence of titanium(IV) chloride By Tadashi Sato, Giichi Izumi, and Takashi Imamura	788
The chemistry of terpenes. Part XXI. By-products from the epoxidation of (+)-car-3-ene with acetonitrile—hydrogen peroxide By Wesley Cocker and David H. Grayson	791
The meso-reactivity of porphyrins and related compounds. Part VII. Benzoyloxylation of phenylpyrroles and of octaethylporphyrin By Raymond Bonnett, Peter Cornell, and Anthony F. McDonagh	794
Nitrogen-containing carbohydrate derivatives. Part XXXII. Further studies on the ring-opening of epimino-sugars By R. D. Guthrie and Gaynor J. Williams.	801
Stable carbocations. Part X. Generation, observation, and reactions of ferrocenyl-stabilised cyclopropyl-alkylium and related ions By William E. Watts	804
Gold(III) as an electrophilic oxidant of alkenes By Richard O. C. Norman, William J. E. Parr, and C. Barry Thomas	811
Base-catalysed reactions of 3-benzylthioinden-1-ones By Katherine Buggle and Daniel O'Sullivan	818