JOURNAL OF THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS I
Organic and Bio-organic Chemistry

Part II, pp. 1037—1992

LONDON: THE CHEMICAL SOCIETY 1976

COPYRIGHT RESERVED

Printed in Great Britain by Richard Clay (The Chaucer Press), Ltd., Bungay, Suffolk

JOURNAL OF THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS I Organic and Bio-organic Chemistry

CONTENTS

	PAGE
Intramolecular catalysis. Part III. Effect of a neighbouring hydroxy-group on the opening of steroidal aziridines with azide anions By Yoram Houminer	1037
Ring C functionalised diterpenoids. Part VII. Formolysis of (16S)-ent-12α-p-tolylsulphonyloxykaurane By Alan J. McAlees, Robert McCrindle, and Shane T. Murphy	1042
Chemistry of tetra-alkoxyethenes. Part V. Thermal cycloadditions with carbonyl compounds By Pieter H. J. Ooms, Hans W. Scheeren, and Rutger J. F. Nivard	1048
Studies of enzyme-mediated reactions. Part VI. Stereochemical course of the dehydrogenation of stereospecifically labelled benzylamines by the amine oxidase from pea seedlings (E.C. 1.4.3.6.) By Alan R. Battersby, James Staunton, and Michael C. Summers	1052
Studies of enzyme-mediated reactions. Part VII. Stereospecific syntheses of tritium-labelled $(2R)$ - and $(2S)$ -dopamines: stereochemical course of hydroxylation of dopamine by dopamine β -hydroxylase (E.C. 1.14.17.1)	
By Alan R. Battersby, Peter W. Sheldrake, James Staunton, and D. Clive Williams	1056
Reaction of some azetidin-2-ones with secondary amines By Derek Johnson and Hans Suschitzky	1062
Synthesis of 18-substituted steroids. Part III. Reactions of 18-substituted pregnan-20-ones By David N. Kirk and Maruthiandan S. Rajagopalan	1064
Polyhalogenoheterocyclic compounds. Part XXIX. Perchloro-acridine, -phenanthridine, and -benzo[h]-quinoline By Richard D. Chambers, Richard Daniels, W. Kenneth R. Musgrave, and Peter L. Russell	1069
	1009
Heterocyclic synthesis from o-halogeno-acids. Part III. Synthesis of 2-methylindole-4-carboxylic acid and related compounds and of some derivatives of 3-phenylisoquinolin-1(2H)-one By Donald E. Ames and Odartey Ribeiro	1073
Mass spectral studies on aminocyclitol-aminoglycoside antibiotics By Peter J. L. Daniels, Alan K. Mallams, Jay Weinstein, John J. Wright, and George W. A. Milne	1078
Semisynthetic aminoglycoside antibacterials. Part I. Preparation of selectively protected garamine derivatives	
By Max Kugelman, Alan K. Mallams, H. Frederick Vernay, David F. Crowe, and Masato Tanabe .	1088
Semisynthetic aminoglycoside antibacterials. Part II. Synthesis of gentamicin X_2 and related compounds By Max Kugelman, Alan K. Mallams, H. Frederick Vernay, David F. Crowe, George Detre, Masato Tanabe, and Dennis M. Yasuda	1097
i	

ii Contents

	PAGE
Semisynthetic aminoglycoside antibacterials. Part III. Synthesis of analogues of gentamic X_2 modified at the 3 -position	
By Max Kugelman, Alan K. Mallams, and H. Frederick Vernay	1113
Semisynthetic aminoglycoside antibacterials. Part IV. Synthesis of antibiotic JI-20A, gentamicin B, and related compounds	
By Max Kugelman, Alan K. Mallams, and H. Frederick Vernay	1126
Semisynthetic aminoglycoside antibacterials. Part V. Synthesis of pentosyl and related derivatives of garamine	
By Alan K. Mallams, Surinderjit S. Saluja, David F. Crowe, George Detre, Masato Tanabe, and Dennis M. Yasuda	1135
Reactions of enamino-ketones. Part II. Synthesis of 4H-1,4-benzothiazines By Seiji Miyano, Nobuhiro Abe, Kunihiro Sumoto, and Keisuke Teramoto	1146
Preparation and reactions of cis-1,4-diphthaloyltetra-az-2-ene By David W. Jones	1150
Chemistry of 6H-pyrido[4,3-b]carbazoles. Part V. A simple synthesis of ellipticines By Malcolm Sainsbury and Raymond F. Schinazi	1155