

JOURNAL
OF
THE CHEMICAL SOCIETY

PERKIN TRANSACTIONS I
Organic and Bio-organic Chemistry

CONTENTS

	PAGE
Preparation of benzyne from phenyl benzenesulphonate By IAN FLEMING and TALAT MAH	1577
Conversion of shikonin angelate into [2,2-dimethyl-1-(2-methylcrotonoyloxy)cyclobutyl]-5,8-dihydroxy-1,4-naphthoquinone; a novel cyclisation of a 4-methylpent-3-enyl side chain in a natural quinone By MUHAMMED AFZAL and MIKDAD TOFEEQ	1579
Thermal and photochemical α -carbon-carbon cleavages in imines By JOSEPH H. BOYER and K. G. SRINIVASAN	1583
Constituents of <i>Solidago</i> species. Part VII. Constitution and stereochemistry of the <i>cis</i> -clerodanes from <i>Solidago arguta</i> Ait. and of related diterpenoids By ROBERT McCRINDLE, ETSU NAKAMURA, and ALLAN B. ANDERSON	1590
Quinolines and uracils from reactions of isocyanates with aliphatic aldehydes By IWAO YAMAMOTO, TAKESHI FURUKAWA, HIROSHI NAKAJIMA, and HARUO GOTOH	1597
Stabilised enamine anions. Generation and alkylation of anions stabilised as cyclopentadienide enamine systems By HUGH W. THOMPSON and BRUNO S. HUEGI	1603
Structure of ballotinone, a diterpenoid from <i>Ballota nigra</i> By GIUSEPPE SAVONA, FRANCO PIOZZI, JAMES R. HANSON, and MICHAEL SIVERNS	1607
Chain extension reactions of acetylenes. Part II. A comparison of the reactions of butyl-lithium with 1-iodoalk-1-yne and 1-bromoalk-1-yne By SUBRAMANIAM BHANU, EJAZ A. KHAN, and FEODOR SCHEINMANN	1609
Syntheses based on 1,2-secopenicillins. Part II. Preparation of 4-(3-substituted prop-2-ynylthio)azetid-2-ones By MICHAEL A. HARRIS, IAN McMILLAN, JOHN H. C. NAYLER, NEAL F. OSBORNE, MICHAEL J. PEARSON, and ROBERT SOUTHGATE	1612
Syntheses based on 1,2-secopenicillins. Part III. Hydration of 4-(3-substituted prop-2-ynylthio)azetid-2-ones and a new cephalosporin synthesis By JOHN H. C. NAYLER, NEAL F. OSBORNE, MICHAEL J. PEARSON, and ROBERT SOUTHGATE	1615
Structure of a polysaccharide from the seeds of <i>Cassia tora</i> . Part II. Partial acidic hydrolysis By SURESH C. VARSHNEY, SAIYID A. I. RIZVI, and PURNA C. GUPTA	1621
Phosphorylated sugars. Part XX. Synthesis of 3-deoxy-D-manno-octulosonic acid 8-(dihydrogen phosphate) By DANIEL CHARON and LADISLAS SZABÓ	1628
Syntheses of the naturally occurring naphtho[2,3- <i>b</i>]pyran-5,10-quinones α -caryopterone, dihydro- α -caryopterone, and <i>O</i> -methyl-dihydro- α -caryopterone By ROBIN G. F. GILES and GREGORY H. P. ROOS	1632

	PAGE
Reaction of 2,4-dinitrobenzenediazonium ions with thiophens. Part 1. An acidic Gomberg reaction By MICHAEL BARTLE, SURESH T. GORE, RAYMOND K. MACKIE, and JOHN M. TEDDER	1636
Reaction of 2,4-dinitrobenzenediazonium ions with thiophens. Part 2. Coupling reactions, involving unexpected reactions with electron-rich methyl groups in addition to the expected ring attack By SURESH T. GORE, RAYMOND K. MACKIE, and JOHN M. TEDDER	1639
Total synthesis of 12-methyl-19-nor-steroids By ROBERT V. COOMBS and ROBERT P. DANNA	1643
<i>o</i> -Quinonoid compounds. Part X. <i>endo</i> -Selectivity in the Diels–Alder additions of non-conjugated olefins to <i>o</i> -quinodimethanes By DAVID W. JONES and GEOFFREY KNEEN	1647
<i>o</i> -Quinonoid compounds. Part XI. <i>exo</i> -Selectivity in the Diels–Alder reactions of phenyl-substituted <i>o</i> -quinonoid dienes By DAVID W. JONES and RICHARD L. WIFE	1654
<i>cis</i> -Hydroxylation of steroidal olefins with thallium triacetate By ERWIN GLOTTER and ANCHEL SCHWARTZ	1660
The chemistry of the compositae. Part XXXI. Absolute configuration of the sesquiterpene lactones centaurepensin (chlorohyssopifolin A), acroptilin (chlorohyssopifolin C), and repin By ANTONIO G. GONZALEZ, JAIME BERMEJO, JOSE LUIS BRETON, GUILLERMO M. MASSANET, BEATRIZ DOMINGUEZ, and JUAN M. AMARO	1663
Microbiological hydroxylation of 3 β ,7 β -dihydroxykaurenolide By GEORGE ELLAMES and JAMES R. HANSON	1666