DABSO – A Reagent to Revolutionize Organosulfur Chemistry

J. A. Andrews, M. C. Willis
A Review on the Halodefluorination of Aliphatic Fluorides

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Recent Progress in Chromium-Mediated Carbonyl Addition Reactions

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DABSO – A Reagent to Revolutionize Organosulfur Chemistry

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Diverse sulfur-containing products
Varied starting materials

Recent Advances in Organocatalyzed Asymmetric Reduction of Prochiral Ketones: An Update

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organocatalyzed asymmetric reduction

Boron-based chiral catalysts
Phosphorus-based chiral catalysts
Chiral ionic liquid catalysts
Chiral oxazoline-based catalysts

Recent Advances in Catalytic Nonenzymatic Kinetic Resolution of Tertiary Alcohols

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Q. Xue
S. Jia
H.-G. Cheng*
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acylation
Lewis base
intramolecular cyclization
CPA
enamide-imine tautomerism
CPA
acetalization
CPA
retro-aldol or retro-allylation
metal catalysts
On the Structure of Thailandene A: Synthetic Examination of the Cryptic Natural Product Aided by a Theoretical Approach

K. G. Primdahl
Å. Kaupang
J.-D. Park
M. R. Seyedsayamdost
J. M. J. Nolsøe
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Quaternary Phosphonium Carboxylates: Structure, Dynamics and Intriguing Olefination Mechanism

A. C. Vetter
H. Müller-Bunz
J. Muldoon
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Asymmetric Synthesis of γ-Amino-Functionalised Vinyl Sulfones: De Novo Preparation of Cysteine Protease Inhibitors

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University College Dublin, Ireland

Feature 1733

Feature 1745

Feature 1753

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Group-Assisted-Purification Chemistry Strategy for the Efficient Assembly of Cyclic Fused Pyridinones

Ugi 4-center 3-component reaction

31 examples, up to 94% yield

High atom efficiency
Good functional group tolerance
Gram-scale synthesis (yield up to 85%)

Facile Synthesis of Quaternary α-Fluoronitriles by Cobalt-Catalyzed Hydrocyanation of Monofluoroalkenes

* Co-catalyzed hydrocyanation of monofluoroalkenes
* 19 new examples, up to 82% yield
* good substrate scope and wide functional group compatibilities

Highly Enantioselective Michael Addition of Cyclic Diketones to β,γ-Unsaturated α-Keto Esters Catalyzed by Squaramide Organocatalyst

25 examples
up to 97% yield, up to 99% ee
**Halogenations of 3-Aryl-1H-pyrazol-5-amines**

**Mild reaction conditions**
**Broad substrate scope (39 examples)**
**Gram-scale synthesis**
**Diversified transformations of products**

J. He
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Y. Feng
C. Li
B. Dai*
P. Liu*
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**An Experimental and Theoretical Study of the 1,3-Dipolar Cycloaddition of Alloxan-Derived Azomethine Ylides to Cyclopropenes**

**30 examples**

23–83%

1,4-dioxane

100 °C

A. S. Filatov
S. I. Selivanov
S. V. Shmakov
A. G. Larina
V. M. Boitsov*
A. V. Stepakov*
Saint-Petersburg State University, Russian Federation
Saint Petersburg National Research Academic University of the Russian Academy of Sciences, Russian Federation
Saint-Petersburg State Institute of Technology, Russian Federation

**[1,3]-Dithiolo-[4,5-d][1,3-dithiole]-2,5-dione**

**3 steps**

22–28% overall yield

H. Müller*
L. Bourcet
ESRF – The European Synchrotron, France
4-Alkyl-3-azidomethyl-2-ethoxy-2,5-dihydro-5H-1,2-oxaphosphole 2-Oxides: Synthesis and 1,3-Cycloaddition

K. V. Belyaeva
L. P. Nikitina
V. S. Gen*
A. V. Afonin
B. A. Trofimov*
A. E. Favorsky Irkutsk Institute of Chemistry, Russian Federation

Oxalylacetylenes as Dielectrophiles for Annulation of Quinoline Rings: Synthesis of Highly Functionalized 1,3-Oxazinoquinolines

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Scalable Total Synthesis of Piceatannol-3′-O-β-D-glucopyranoside and the 4′-Methoxy Congener Thereof: An Early Stage Glycosylation Strategy

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Protecting-Group-Free Total Synthesis of Anticancer (±)-Melotenine A

A. Thanetchaiyakup
H. Rattanarat
S. Aree
T. Duangthongyou
T. Nanok
N. Chuanopparat
P. Ngernmeesri *
Kasetsart University, Thailand

I₂/DMSO-Promoted Synthesis of Chromeno[4,3-b]quinolines through an Imine Formation/Aza-Diels–Alder/Aromatization Tandem Reaction under Metal-Catalyst- and Photosensitizer-Free Conditions

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C. E. Puerto Galvis
M. A. Macías
C. Ochoa-Puentes
V. V. Kouznetsov *
Universidad Industrial de Santander, Colombia

Diastereoselective Synthesis of Spirocyclopentene-Indanediones from Isocyanides, Acetylenic Esters, and NH-Acidic Compounds

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