Backbone-Enabled Peptide Macrocyclization through Late-Stage Palladium-Catalyzed C–H Activation

Z. Bai
H. Wang*
Nanjing University, P. R. of China

Recent Advances in Chromium-Catalyzed Organic Transformations

X. Zeng*
Sichuan University, P. R. of China
Bottom-Up Synthesis of Nitrogen-Doped Polycyclic Aromatic Hydrocarbons

J. Liu*
X. Feng*
The University of Hong Kong, P. R. of China
Technische Universität Dresden, Germany

DOI: 10.1055/s-0039-1690767

Cluster Preface: Biocatalysis

T. K. Hyster*
Princeton University

Selective Functionalization of Aliphatic Amines via Myoglobin-Catalyzed Carbene N–H Insertion

V. Steck
G. Sreenilayam
R. Fasan*
University of Rochester, USA

DOI: 10.1055/s-0039-1690007
Synthetic Utility of One-Pot Chemoenzymatic Reaction Sequences

T. J. Doyon
A. R. H. Narayan*
University of Michigan, USA

One-pot chemoenzymatic reaction sequences
Site-, stereo-, and chemoselective reactions
Improved sustainability

A Hammett Study of Clostridium acetobutylicum Alcohol Dehydrogenase (CaADH): An Enzyme with Remarkable Substrate Promiscuity and Utility for Organic Synthesis

G. P. Kudalkar
V. K. Tiwari
J. D. Lee
D. B. Berkowitz*
University of Nebraska, USA

Linear free-energy relationships with Clostridium acetobutylicum ADH
Aldehyde Carbonyls
- Keto Ester Carbonyls
Trifluoromethyl Ketones

Radical Biocatalysis: Using Non-Natural Single Electron Transfer Mechanisms to Access New Enzymatic Functions

T. K. Hyster*
Princeton University, USA

radical
substrate promiscuous oxidoreductases
non-natural electron transfer mechanisms
racemic
enantioenriched
prochiral radical
Transposition of Aromaticity from a Furan to a Cyclohexane Ring in Furoisoindoles During the Interaction of 3-(Furyl)allylamines with Bromomaleic Anhydride

K. A. Alekseeva
E. A. Kvyatkovskaya
E. V. Nikitina
V. P. Zaytsev
S. M. Eroshkina
K. S. Shikhaliev
H. H. Truong
V. N. Khrustalev
F. I. Zubkov*
Peoples’ Friendship University of Russia (RUDN University), Russian Federation

Can you suggest a mechanism?

Visible-Light-Induced Arene C(sp²)–H Lactonization Promoted by DDQ and tert-Butyl Nitrite

Y. Wang
S. Wang
B. Chen
M. Li*
X. Hu
B. Hu
L. Jin
N. Sun
Z. Shen*
Zhejiang University of Technology, P. R. of China


F. M. Moghaddam*
A. Moafi
B. Jafari
A. Vilinger
P. Langer
University of Technology, Iran
**Photoinduced Carbon Tetrabromide Initiated Aerobic Oxidation of Substituted Toluenes to Carboxylic Acids**

K. Zheng
X. Yan
G. Zhang
X. Yan
X. Xu*

Zhejiang University of Technology, P. R. of China

**Copper-Catalyzed One-Pot Synthesis of 2,3-Dihydroquinazolin-4(1H)-ones from 2-Nitrobenzonitriles and Carbonyl Compounds Mediated by Diboronic Acid in Methanol–Water**

Q. Liu
Y. Sui
Y. Zhang
K. Zhang
Y. Chen
H. Zhou*

China Three Gorges University, P. R. of China

**Synthesis of Phenanthridinones by Palladium-Catalyzed Cyclization of N-Aryl-2-aminopyridines with 2-Iodobenzoic Acids in Water**

X. Ding
L. Zhang
Y. Mao
B. Rong
N. Zhu
J. Duan*
K. Guo*

Nanjing Tech University, P. R. of China
Manganese-Catalyzed Enantioselective Hydrogenation of Simple Ketones Using an Imidazole-Based Chiral PNN Tridentate Ligand

F. Ling
J. Chen
S. Nian
H. Hou
X. Yi
F. Wu
M. Xu
W. Zhong*
Zhejiang University of Technology, P. R. of China

Synlett 2020, 31, 285–289
DOI: 10.1055/s-0039-1690783

KOH, MeOH, rt
3 MPa of H2
up to >8200 TON
26 examples
up to >99% yield
up to >88% ee

Synthetic Studies on Bilobalide

A. Shiogai
T. Toma
S. Yokoshima*
Nagoya University, Japan

Synlett 2020, 31, 280–294
DOI: 10.1055/s-0039-1691559

Diels–Alder reaction
desymmetrization

Cyclopentene Assembly by Microwave-Assisted Domino Reaction of Donor–Acceptor Cyclopropanes with Ketals

H. M. Nguyen
H. R. Chand
N. E. Golantsov*
I. V. Trushkov
L. G. Voskressensky*
Peoples’ Friendship University of Russia (RUDN University), Russian Federation

Synlett 2020, 31, 295–299
DOI: 10.1055/s-0039-1690775

Lewis acid microwave irradiation
– 2 MeOH
19 examples
up to 94% yield