Aldehyde Carboxylation: A Concise DFT Mechanistic Study and a Hypothetical Role of CO₂ in the Origin of Life

M. Juhl
M. J. Kim
H.-Y. Lee
M.-H. Baik
J.-W. Lee

University of Copenhagen, Denmark
Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea
Institute for Basic Science (IBS), Republic of Korea

Combining Defects in a Single Nanographene: A Fully Helical Saddle Ribbon

C. M. Cruz
S. Castro-Fernández
E. Maçôas
A. Millán
A. G. Campaña

Universidad de Granada, Spain
Potassium Alkoxide/Disilane-Mediated Dehalogenative Deuteration

X. Wang
M.-H. Zhu
W.-B. Liu*
Wuhan University, P. R. of China

Transition-metal-free
Mild reaction conditions
Cheap deuterium source
High incorporation yield and D content
up to 91% yield

Enantioselective Reductive Diarylation of Alkenes by Ni-Catalyzed Domino Heck Cyclization/Cross Coupling

K. Wang
W. Kong*
Wuhan University, P. R. of China

Mild conditions & broad substrate scope
All-carbon quaternary centers
High enantioselectivity
No preprepared organometallic reagents
33 examples
30–81% yield
90–99% ee

Sharpening Up Your Spectra: Broadband Homonuclear Decoupling in HSQC by Real-Time Pure Shift Acquisition

P. Kiraly
G. A. Morris
L. Quanxiu
M. Nilsson*
University of Manchester, UK

conventional HSQC
pure shift HSQC
Recent Developments in the Synthesis of Nitrogen-Containing Heterocycles through C–H/N–H Bond Functionalizations and Oxidative Cyclization

X. Liu*, Y. Huang, X. Meng, J. Li, D. Wang, Y. Chen, D. Tang, B. Chen*
China Three Gorges University, P. R. of China
Lanzhou University, P. R. of China

Halotrimethylsilane-Nitrite/Nitrate Salts: Efficient and Versatile Reagent System for Diverse Organic Synthetic Transformations

T. Mathew*, L. Gurung, S. Roshandel, S. B. Munoz, G. K. S. Prakash*
University of Southern California, USA

Nickel-Catalyzed β-Carboxylation of Ynamides with Carbon Dioxide

R. Doi, T. Okano, I. Abdullah, Y. Sato*
Hokkaido University, Japan
New Facile Synthesis of 3,4-Dihydroquinazoline-2(1H)-thiones by a Sequential Ugi-Azide/Staudinger/Aza-Wittig/Cyclization Reaction

J. Xiong*
Q. Min
G. Yao
J.-A. Zhang
H.-F. Yu
M.-W. Ding*
Hubei University of Science and Technology, P. R. of China
Central China Normal University, P. R. of China

Synthesis of 6-Chloro-5-(trifluoroacetyl)pyridine-3-carbonitrile: A Novel, Versatile Intermediate for the Synthesis of Trifluoro-methylated Azaindazole Derivatives

M. B. Channapur
R. G. Hall
J. Kessabi
M. Montgomery
A. S. Shyadligeri*
Syngenta Biosciences Private Limited, Santa Monica Works, India

Synthesis of Perfluoroalkyl-Substituted Oxindoles through Organophotoredox-Catalyzed Perfluoroalkylation of N-arylacrylamides with Perfluoroalkyl Iodides

Z. Yang*
A. Tang
Guizhou Institute of Technology, P. R. of China
Enantioselective Arylation of 3-Carboxamide Oxindoles with Quinone Monoimines and Synthesis of Chiral Spirooxindole-benzofuranones

H. Chen
H. Liu
S.-H. Zhao
S.-B. Cheng
X.-Y. Xu
W.-C. Yuan
X.-M. Zhang*
Chengdu Institute of Organic Chemistry, P. R. of China

Enantioselective arylation of 3-carboxamide oxindoles with quinone monoimines and synthesis of chiral spirooxindole-benzofuranones.

Palladium-Catalyzed Regioselective Heck–Suzuki–Miyaura Cascade Cyclization for the Synthesis of Trisubstituted Arylideneisoquinolinones

M. S. Asgari
R. Mirzazadeh
B. Larijani
P. Rashidi Ranjbar*
R. Rahimi
M. Mahdavi*
University of Tehran, Iran
Tehran University of Medicinal Sciences, Iran

Palladium-catalyzed regioselective Heck–Suzuki–Miyaura cascade cyclization for the synthesis of trisubstituted arylideneisoquinolinones.

Bronsted Acids of Anionic Chiral Cobalt(III) Complexes as Catalysts for the Iodoglycosylation or Iodocarboxylation of Glycals

R. Wang
W.-Q. Wu
N. Li
J. Shen
K. Liu
J. Yu*
Anhui Agricultural University, P. R. of China

Bronsted acids of anionic chiral cobalt(III) complexes as catalysts for the iodoglycosylation or iodocarboxylation of glycals.
The Hudrlik–Peterson Reaction of Secondary cis-TMS-Epoxy Alcohols and its Application to the Synthesis of the Fatty Acid Intermediates

S. Saito
Y. Nanba
M. Morita
Y. Kobayashi*
Tokyo Institute of Technology, Japan

Fe-Catalyzed Bisphosphorylation of Amino-2-en-1-ones with Trialkyl Phosphites

S. Guo
K. Jie
L. Huang
Z. Zhang
Y. Wang
Z. Fu
H. Cai*
Nanchang University, P. R. of China

Highly Regioselective Phosphine-Promoted [2+2+2] Annulations of Cyanoacetylenes and N-Tosylimines to 1,2-Dihydropyridine-3,5-dicarbonitrile Derivatives

J. Zhang
Q. Zhang
X. Ji
L.-G. Meng*
Huaibei Normal University, P. R. of China
Triphenylphosphine Oxide-Catalyzed Selective α,β-Reduction of Conjugated Polyunsaturated Ketones

X. Xia
Z. Lao
P. H. Toy*
The University of Hong Kong, P. R. of China

Ph₃P=O (catalyst)
Cl₃SiH
highly selective organocatalytic process

15 examples 91–100% yield
96% yield

2 examples >67% yield
96% yield