Organo-f-Complexes for Efficient and Selective Hydroborations

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 Highly efficient
 Highly selective

Transition-Metal-Catalyzed Suzuki–Miyaura-Type Cross-Coupling Reactions of π-Activated Alcohols

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Suzuki-Miyaura-Type Cross-Coupling Reaction
Synthetic Approaches to Unsymmetrically Substituted 5,7-Dihydroxycoumarins

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Ethenesulfonyl Fluoride (ESF) and Its Derivatives in SuFEx Click Chemistry and More

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W.-Y. Fang
Z.-Z. Xie*
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H. Alsulami
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An Improved, Practical, and Scalable Five-Step Synthesis of Psilocybin

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Synthesis of Sulfonylisoureas via Sulfo-Click Reactions

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Synthesis of Sulfonylisoureas via Sulfo-Click Reactions

R1HN\text{OR2} + S\text{N} \rightarrow S\text{N} \rightarrow R1HN\text{OR2} \quad \text{27 examples}
\text{additive-free}
\text{simple purification}
\text{'green' reactions in water}
34–78% yield
R1, R2, R3 = alkyl, aryl

Hydroalkylation of Unactivated Alkenes with Ketones and 5-Benzylfurfurals Enabled by Amine/Pd(II) Cooperative Catalysis

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Hydroalkylation of Unactivated Alkenes with Ketones and 5-Benzylfurfurals Enabled by Amine/Pd(II) Cooperative Catalysis

\text{N} \quad R1 \quad O\text{AQ} \quad R3 \quad O\text{AQ} \quad R1 \quad N \quad A1
\text{Pd(MeCN)3Cl2/A1}
\text{Pd(OAc)2/A6}
\text{H2N/NHBoc}
\text{Ar}
\text{OMe/Ph}
\text{Ph/OMe}
\text{for R1 = H}
13 examples up to 89% yield
9 examples up to 72% yield

Electrochemically Induced Thiocyanation of Enaminones: Synthesis of Functionalized Alkenes and Chromones

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Electrochemically Induced Thiocyanation of Enaminones: Synthesis of Functionalized Alkenes and Chromones

\text{up to 98% yield}
\text{broad substrate scope}
\text{oxidant- and catalyst-free}
\text{open air}
Palladium-Catalyzed Oxidative Annulation of Pyrrolylalkyl-1H-azoles: Towards the Synthesis of Polyheterocyclic Arenes

K. N. Tripathi
A. H. Bansode
R. P. Singh*
Indian Institute of Technology Delhi, India

Palladium-Catalyzed Oxidative Annulation of Pyrrolylalkyl-1H-azoles:
Towards the Synthesis of Polyheterocyclic Arenes

K. N. Tripathi
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An Iodide-Mediated Transition-Metal-Free Strategy towards Unsymmetrical Diaryl Sulfides via Arylhydrazines and Thiols

F. Jafarpour*
M. Asadpour
M. Azizzade
M. Ghasemi
S. Rajai-Daryasarei
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Studies towards the Total Synthesis of Kadcotrione B

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M. Gangababu
P. Manimala
A. Rammohan
J. S. Yadav
CSIR-Indian Institute of Chemical Technology, India
A Copper(I)-Mediated Tandem Three-Component Synthesis of 5-Allyl-1,2,3-triazoles

Y. Song
S. Lee
P. Dutta
J.-S. Ryu*
Ewha Womans University, Republic of Korea

Cul, NaNH₂, toluene, rt
(37–92%)

- One-pot three-component reaction
- Commercial alkynes can be used

Base-Promoted Direct Synthesis of Sulfinates from N-Sulfonyl-hydrazones under Metal-Free Conditions

Y.-Z. Ji
Q.-X. Wu
H.-J. Li*
D.-H. Luo
Y.-C. Wu*
Harbin Institute of Technology, P. R. of China
Weihai Institute of Marine Bio-medical Industrial Technology, P. R. of China

DIPEA (1.0 equiv)
CH₃NO₂, 90 °C, 2 h

- one-pot synthesis
- metal-free conditions
- 16 examples
- moderate to good yields

Direct Oxidative Dearomatization of Indoles with Aromatic Ketones: Rapid Access to 2,2-Disubstituted Indolin-3-ones

J. Liu
J. Huang
K. Jia
T. Du
C. Zhao
R. Zhu*
X. Liu*
Shandong University, P. R. of China

TEMPO·BF₄⁻, H₂SO₄
EtOAc, 0 °C

- 19 examples
- 62–82% yields
Practical Synthesis of 1,2,3,4-Tetrahydroisoquinoline-1-phosphonic and -1-phosphinic Acids through Kabachnik–Fields and Aza-Pudovik Reaction

N
H
P
X
O
H
HO
X
RO3P
P
X
OH
X
H, OH

Mild reaction conditions
Operational simplicity
No metals needed

X = OH, H, Ph

Palladium-Catalyzed Hydroarylation of Diazocarboxylates and Diazophosphonates

Ar
EWG
N2
I
+ HCO2H
R
R
PdCl2(PPh3)2 (5 mol%)
Et3N
EWG = CO2Et; P(O)(OEt)2

17 examples
up to 71% yield