Cationic Bismuth Compounds in Organic Synthesis and Catalysis: New Prospects for CH Activation

Synthesis of β-Phenethyl Ethers by Base-Catalyzed Alcohol Addition Reactions to Aryl Alkenes

B. Ritschel
C. Lichtenberg*
Julius-Maximilians-Universität
Würzburg, Germany

C. Luo
J. S. Bandar*
Colorado State University, USA

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From Straightforward Gold(I)-Catalyzed Enyne Cyclizations to more Demanding Intermolecular Reactions of Alkynes with Alkenes

C. García-Morales
A. M. Echavarren*
Institute of Chemical Research of Catalonia (ICIQ), Universitat Rovira i Virgili, Spain

Intermolecular Reactions of Alkynes with Alkenes

Cyclopropyl Gold(I) Carbene

up to 94:6 er

Radical-type Reactions Controlled by Cobalt: From Carbene Radical Reactivity to the Catalytic Intermediacy of Reactive o-Quinodimethanes

C. te Grotenhuis
B. de Bruin*
University of Amsterdam (UvA), The Netherlands

Radical-type Reactions

Carbene Radical

o-Quinone Methide

o-Quinodimethane

Asymmetric Copper-Catalyzed C(sp)–H Bond Insertion of Carbenoids Derived from N-Tosylhydrazones

T. Osako
M. Nagaosa
G. Hamasaka
Y. Uozumi*
Institute for Molecular Science (IMS) and JST-ACCEL, Japan

Catalyst (5 mol%) L* (11 mol%)
Cs2CO3 (2.7 equiv)
1,4-dioxane, 80 °C, 24 h, N2

16 examples
15–77% yield
2–74% ee
Fe(ClO$_4$)$_3$·H$_2$O-Catalyzed Ritter Reaction: A Convenient Synthesis of Amides from Esters and Nitriles

C. Feng, B. Yan, G. Yin, J. Chen, M. Ji*
Southeast University, P. R. of China

Fe(ClO$_4$)$_3$·H$_2$O (5 mol%) $\rightarrow$ Fe(ClO$_4$)$_3$·H$_2$O (5 mol%)

Drug synthesis (87%)

(2-Benzoxylphenoxy)acetyl (BnPAc): A Participating Relay Protecting Group for Diastereoselective Glycosylation and the Synthesis of 1,2-trans Glycosyl Esters

J. Weber, S. Krauter, T. Schwarz, C. Hametner, H. Mikula*
Vienna University of Technology (TU Wien), Austria

Copper-Catalyzed Base-Free N-Arylation of 8-Aminoquinoline Amides through Chelation Assistance

G.-W. Zhang, A.-X. Zhou, W. He, X.-F. Xia*
Jiangnan University, P. R. of China
Dehydroxymethyl Bromination of Alkoxybenzyl Alcohols by Using a Hypervalent Iodine Reagent and Lithium Bromide

**Synlett**

A. Shibata
S. Kitamoto
K. Fujimura
Y. Hirose
H. Hamamoto
A. Nakamura
Y. Miki
T. Maegawa*

Kindai University, Japan

PhI(OAc)$_2$, LiBr, CF$_3$CH$_2$OH

r.t., 10 min

15 examples

up to 99% yield

mild conversion of alkoxybenzyl alcohols to bromides

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Synthesis of β-CF$_3$ Ketones through Copper/Silver Cocatalyzed Oxidative Coupling of Enol Acetates with ICH$_2$CF$_3$

**Synlett**

Y. Xiong
D. Chen
S. Zeng
C. Cheng
P. Wang
W. Deng*
J. Xiang*
N. Yi*

Hunan University, P. R. of China

Cu(OAc)$_2$·H$_2$O, Ag$_2$SO$_4$

TBHP, Et$_3$N

CH$_3$CN, 100 °C

19 examples

21–70% yield

Simple substrates

High regio-selectivity

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Copper-Catalyzed Synthesis of Substituted 4-Acylpyrazole Derivatives through a Cascade Transformation from N-Propargylic Sulfonylhydrazones and Diaryliodonium Salts

**Synlett**

R.-H. Li
X.-Y. Fan
Z.-L. Hu
Z.-K. Liu
Y. Yang
H.-T. Tang
Y.-H. Chen*
L. Chen
Z.-P. Zhan

Xiamen University, P. R. of China

Cu(OTf)$_2$ (10 mol%)

DBE, H$_2$IO, 80 °C

in air

13 examples

41–66% yield
**Palladium(0)-Catalyzed Diastereoselective (3+2) Cycloadditions of Vinylcyclopropanes with Sulfonyl-Activated Imines**

J. Ling  
M. Laugeois  
V. Ratovelomanana-Vidal  
M. R. Vitale*  
PSL Université Paris, Chimie  
ParisTech, France

**Dimethylisosorbide (DMI) as a Bio-Derived Solvent for Pd-Catalyzed Cross-Coupling Reactions**

K. L. Wilson  
J. Murray  
H. F. Sneddon  
C. Jamieson  
A. J. B. Watson*  
University of St Andrews, UK

**Brønsted Acid Mediated Direct α-Hydroxylation of Cyclic α-Branched Ketones**

G. A. Shevchenko  
S. Dehn  
B. List*  
Max-Planck-Institut für Kohlenforschung, Germany
Catalyst-Free Three-Component Synthesis of Spirobendimidazolidines Bearing an Indole Scaffold

F. M. Moghaddam*
A. Moafi
Z. Zamani
M. Daneshfar
Sharif University of Technology, Iran

R1 = H, Me, Ph
R2 = H, Me, Cl, NO2

Mild Condition
Catalyst Free

12 Examples
Moderate to High Yield (58–80%)
Short Reaction Time
Easy Purification

K2S2O8-Mediated Arylmethylation of Indoles with Tertiary Amines via sp³ C–H Oxidation in Water

M. Singh
A. K. Yadav
L. D. S. Yadav*
R. K. P. Singh*
University of Allahabad, India

R1 = H, CH3, OCH3, Ph, F, Cl, Br, I
R2 = CH3, PhCH2; R3 = Br; R4 = CH3

K2S2O8, H2O
rt, 2–4 h
transition-metal- and catalyst-free

18 examples up to 94% yield

Organic Photoredox Catalysis for Pschorr Reaction: A Metal-Free and Mild Approach to 6H-Benzochromenes

J.-Y. He
Q.-F. Bai
C. Jin
G. Feng*
Shaoxing University, P. R. of China

R1 = H, Me, Cl, NO2
R2 = H, Me, OMe

eosin Y (1 mol%) MeCN (2 mL)
36 W green LEDs
rt, N2, 16 h

15 examples 29–98% yield
[4-iodo-3-(isopropylcarbamoyl)phenoxy]acetic Acid as a Highly Reactive and Easily Separable Catalyst for the Oxidative Cleavage of Tetrahydrofuran-2-methanols to γ-Lactones

T. Yakura*
T. Fujiwara
H. Nishi
Y. Nishimura
H. Nambu
University of Toyama, Japan

Na₂CO₃-Catalyzed O-Acylation of Phenols for the Synthesis of Aryl Carboxylates with Use of Alkenyl Carboxylates

X.-Y. Zhou*
X. Chen*
Liupanshui Normal University,
P. R. of China

Synthesis of Multisubstituted Guanidines through Palladium-Catalyzed Insertion of Isonitrides

P.-X. Li
X.-J. Meng
L. Yang*
H.-T. Tang*
Y.-M. Pan
Guangxi Normal University,
P. R. of China
Guangxi Key Laboratory of Special Non-wood Forest Cultivation and Utilization, Guangxi Zhuang Autonomous Region Forestry Research Institute, P. R. of China