Emerging Catalyst Control in Cobalt-Catalyzed Oxidative Hydrofunctionalization Reactions

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Regioselective Radical Alkene Amination Strategies by Using Phosphite-Mediated Deoxygenation

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Ruthenium-Catalyzed Direct Cross-Coupling of Secondary Alcohols to β-Disubstituted Ketones

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Recent Progress in the Copper-Catalyzed Cascade Cyclization Involving Intramolecular Hydroamination of Terminal Alkynes

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Recent Advances in the Synthesis of Thiadiazoles

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Functional End Group in Living Ring-Opening Metathesis Polymerization

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Simple Apparatus for Adding Small Amounts of Powder Materials under an Inert Atmosphere

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Y. Joh
K. U. Khodjaniyazov
S. S. Sagdullaev
T. Oishi
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Selective and Scalable Dehydrogenative Electrochemical Synthesis of 3,3',5,5'-Tetramethyl-2,2'-biphenol

M. Selt
S. Mentizi
D. Schollmeyer
R. Franke
S. R. Waldvogel*
Johannes Gutenberg University Mainz, Germany
MaterChem MainZ, Germany

OH

OH

OH

no brominated product
scalable
39% (122 g scale)
[2+2] Photocycloaddition of 3-Alkoxycoumarins with C_60

M. Ueda*
M. Hayama
H. Hashishita
Osaka Prefecture University, Japan

365 nm UV-LED

R = H, Ph, CO_2Me, Br,

single isomer
7 examples
up to 33% yield

Diene Synthesis by the Reductive Transposition of 1,2-Allenols

V. J. Rinaolo
E. E. Robinson
A. B. Diagne
S. E. Schaus
R. J. Thomson*
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DEAD, Ph_3P
then CF_3CH_2OH

R = aryl and alkyl
54–86% yield
up to 5:1 cis:trans

Diethyl Phosphite Promoted Electrochemical Oxidation of Tetrahydroisoquinolines to 3,4-Dihydroisoquinolin-1(2H)-ones

W. Xie
B. Gong
S. Ning
N. Liu
Z. Zhang
X. Che
L. Zheng
J. Xiang*
Jilin University, P. R. of China

HPO(OED)_2, Et_3N/OTs
CH_2Cl_2 (wet), rt

R = aryl, alkyl
21 examples
32–86% yield

• Simple reaction conditions • High regioselectivity
A General Synthesis of Benzoazepinoindoles – A New Class of Heterocycles

J. C. Dobrowolski
D. H. T. Nguyen
B. H. Fraser
M. Bhadbhade
D. St. C. Black
N. Kumar*
The University of New South Wales, Australia

- New class of heterocycles
- Highly functionalisable structures
- Efficient two-step synthesis
- Inexpensive

43–68% Yield
16 Novel derivatives

Hydrogen-Bond-Promoted Metal-Free Hydroamination of Alkynes

J. Bahri
N. Tanbouza
T. Ollevier*
M. Taillefer*
F. Monnier*
École Nationale Supérieure de Chimie de Montpellier, France
Université Laval, Canada
IUF Institut Universitaire de France, France

- No metal catalyst
- Stereo- and regioselective
- 30 examples
- Yields of up to 96%

Preparation of Bicyclic Ketal Skeletons with Aldehyde and α-Ketone Acid through Cascade Friedel–Crafts Reaction and Stereoselective Acetalization in One Pot

L. Li
Y.-w. Wang
S.-q. Zhang
X.-f. Deng
G.-x. Li*
G. Zhao*
Z. Tang*
Sichuan University, P. R. of China
Natural Products Research Center Chengdu Institution of Biology, P. R. of China

- Stereoselective acetalization
- One-pot tandem reaction
- Broad substrate scope
- Polysubstituted bicyclic acetals

99:1 dr
43–80% yield
19 examples
Silver-Promoted Versatile Cross-Dehydrogenative Coupling of Quinaldine with Usual Ethers

39 examples
13–94% yields
R1 = F, Cl, Br, I, Me, etc
n = 1, 2