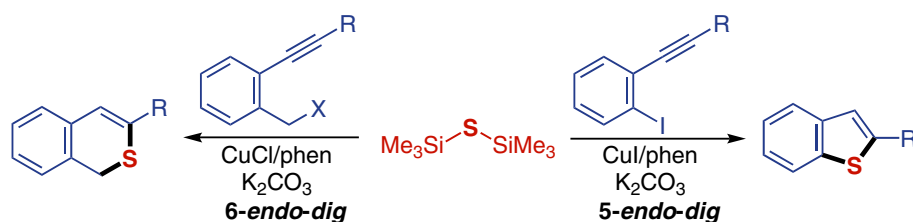


Synthesis

Reviews and Full Papers in Chemical Synthesis

March 1, 2023 • Vol. 55, 707–856



Disilathiane as a Sulfur Source for the Construction of Isothiochromenes and Benzo[*b*]thiophenes by Copper-Catalyzed *endo*-Selective Hydrothiolation

T. Nakajima, R. Takeuchi, K. Oomori, K. Ishida, Y. Ogiwara, N. Sakai

5

Synthesis

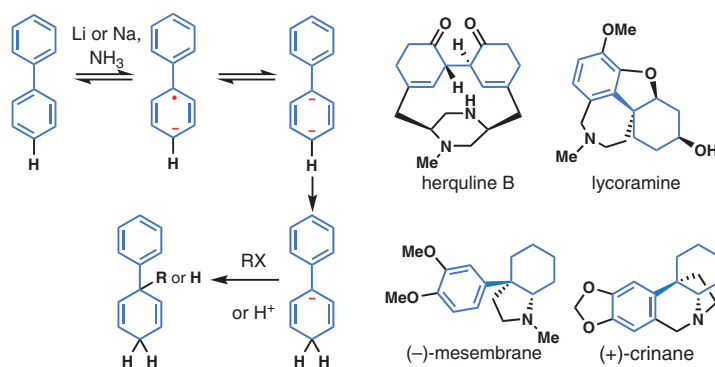
Mechanistic and Synthetic Studies of Biaryl Birch Reductions

Short Review

707

Synthesis 2023, 55, 707–718
DOI: 10.1055/s-0042-1751387

K. Koide*
University of Pittsburgh, USA



Synthesis

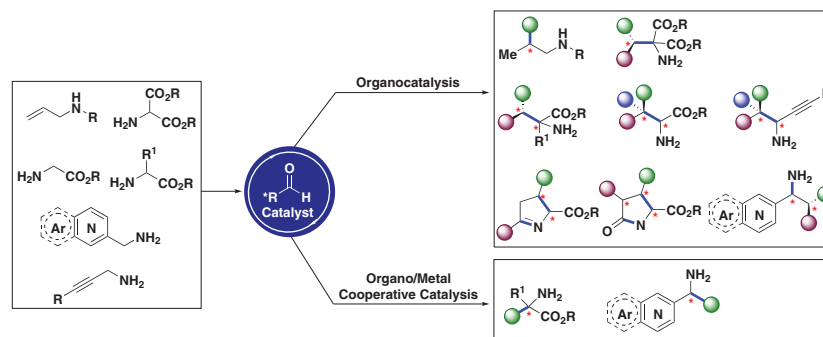
Recent Advances in Chiral Aldehyde Catalysis for Asymmetric Functionalization of Amines

Short Review

719

Synthesis 2023, 55, 719–732
DOI: 10.1055/a-1973-4292

W. Wen*
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Synthesis

Synthesis **2023**, *55*, 733–743
DOI: 10.1055/a-2004-0951

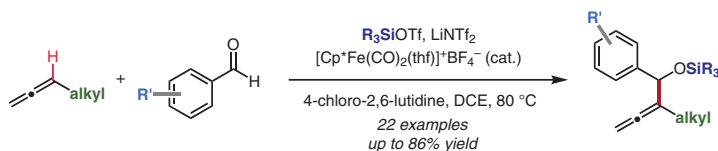
R. Ding
Y. Wang
Y.-M. Wang*

University of Pittsburgh, USA

Synthesis of 1,1-Disubstituted Allenylic Silyl Ethers through Iron-Catalyzed Regioselective C(sp²)-H Functionalization of Allenes

Feature

733



- Direct C–H functionalization of simple Allenes
- Access to 1,1-disubstituted allenylic alcohols

Synthesis

Synthesis **2023**, *55*, 744–754
DOI: 10.1055/a-1942-7033

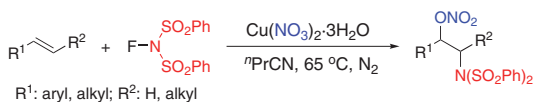
K. Zhou
L. Yin
Y. Guo
C.-H. Ding*
B. Xu*

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Shanghai Institute of Organic
Chemistry, P. R. of China

Copper Nitrate Mediated Regioselective Difunctionalization of Alkenes with *N*-Fluorobenzenesulfonimide: A Direct Approach to β -Aminonitrates

Paper

744



- Aminonitrate synthesis
- Mild reaction conditions
- Readily available reactants
- Good functional group tolerance

Synthesis

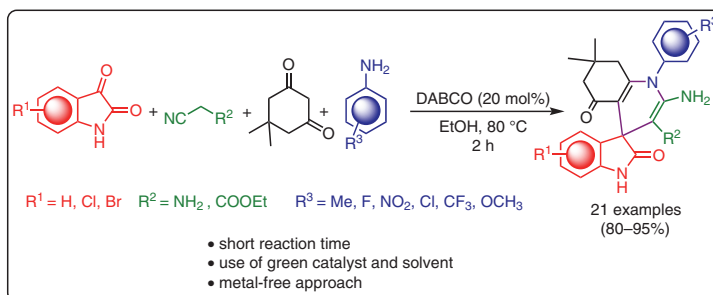
Synthesis **2023**, *55*, 755–764
DOI: 10.1055/a-1948-2677

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(BHU), India

A New Avenue to One-Pot Four-Component Synthesis of Spiro[indoline-3,4'-quinoline] Derivatives Using DABCO as a Green Catalyst

Paper

755



Synthesis

Synthesis 2023, 55, 765–772
DOI: 10.1055/a-1944-9718

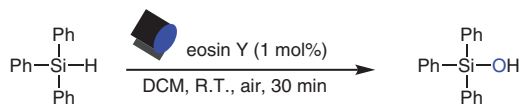
P. He
F. Zhang
X. Si
W. Jiang
Q. Shen
Z. Li
Z. Zhu
S. Tang*
Q.-W. Gui*

Yunnan Key Laboratory of Tobacco Chemistry, P. R. of China
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Visible-Light-Induced Aerobic Oxidation of Tertiary Silanes to Silanols using Molecular Oxygen as an Oxidant

Paper

765



- mild conditions
- transition-metal-free
- new Si–O bond formation
- operational simplicity
- O₂ as oxidant
- visible light

Synthesis

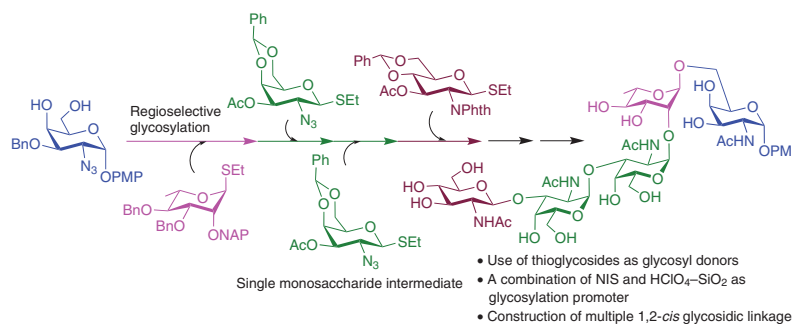
Synthesis 2023, 55, 773–778
DOI: 10.1055/s-0041-1738428

S. K. Jana
P. Shit
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Straightforward Synthesis of the Pentasaccharide Repeating Unit of the O-Antigenic Polysaccharide from the Enteropathogenic *Escherichia coli* O142

Paper

773



- Use of thioglycosides as glycosyl donors
- A combination of NIS and HClO₄-SiO₂ as glycosylation promoter
- Construction of multiple 1,2-*cis* glycosidic linkages

Synthesis

Synthesis 2023, 55, 779–785
DOI: 10.1055/a-1953-4534

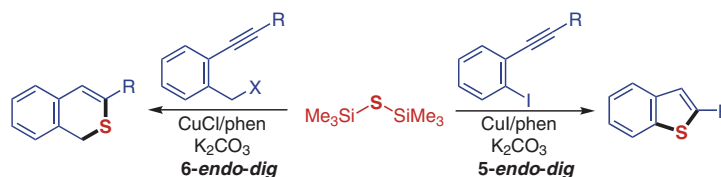
T. Nakajima
R. Takeuchi
K. Oomori
K. Ishida
Y. Ogiwara
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Disilathiane as a Sulfur Source for the Construction of Isothiochromenes and Benzo[*b*]thiophenes by Copper-Catalyzed *endo*-Selective Hydrothiolation

Paper

779



Synthesis

Synthesis 2023, 55, 786–798
DOI: 10.1055/a-1947-5871

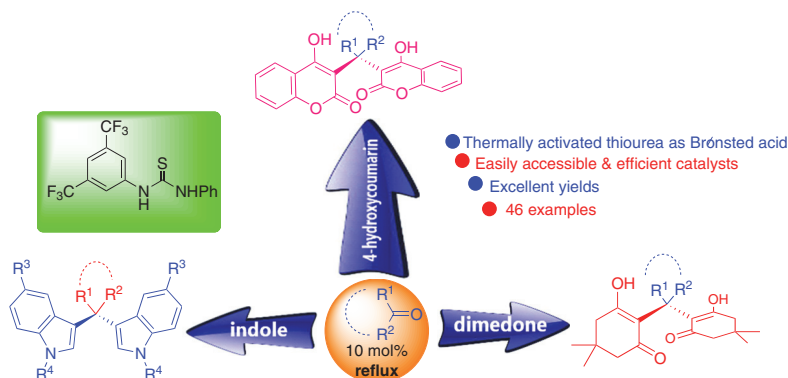
A. Gogoi
G. Basumatary
G. Bez*

North-Eastern Hill University,
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Thermally Activated Aryl Thioureas as Brønsted Acid Catalysts for C–C Bond Forming Reactions: Synthesis of Symmetrical Trisubstituted Methanes

Paper

786



Synthesis

Synthesis 2023, 55, 799–807
DOI: 10.1055/a-1958-4406

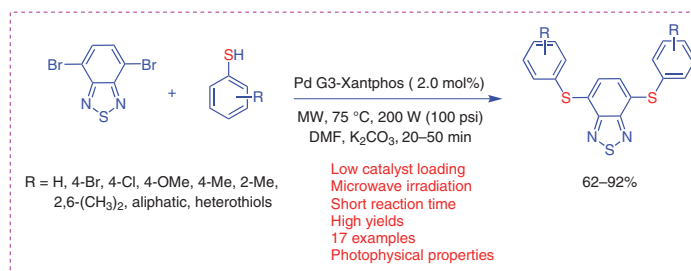
R. Katla*
R. Katla
E. Q. Oreste
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FURG, Brazil

Pd-G3 XantPhos Mediated Approach to Bis-arylsulfonyl-benzo-2,1,3-thiadiazoles under Microwave Irradiation in DMF: Synthesis and Fluorescent Properties

Paper

799



Synthesis

Synthesis 2023, 55, 808–820
DOI: 10.1055/s-0041-1738429

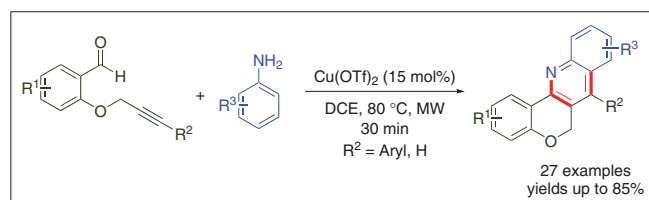
D. R. Kishore
K. Mounika
K. Goel
J. Naveen
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(IIT) Hyderabad, India

Microwave-Assisted Domino Povarov-Type [4+2] Cycloaddition: A Rapid Access to 7-Phenyl-6H-chromeno[4,3-b]quinolines

Paper

808



Synthesis

One-Step, Gram-Scale Synthesis of Caffeine-*d*₉ from Xanthine and CD₃I

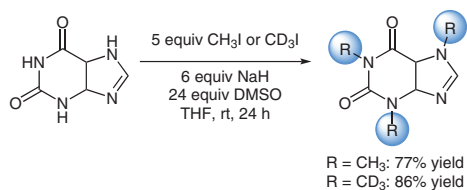
Paper

821

Synthesis 2023, 55, 821–825
DOI: 10.1055/a-1972-3819

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nology, Canada
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Synthesis

XantPhos Pd-G3 as an Efficient Catalyst: Microwave-Assisted C–S Cross-Coupling Reaction in DMF

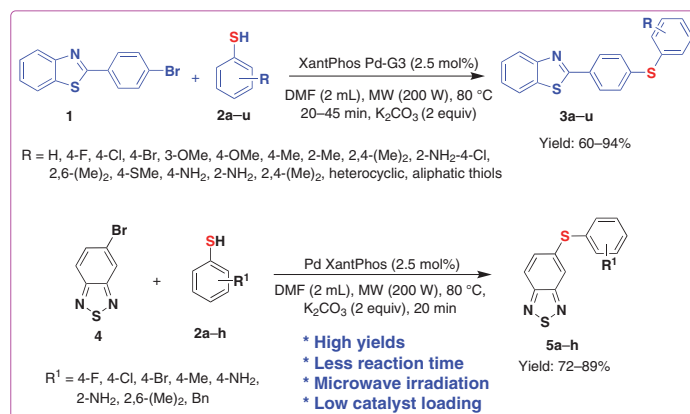
Paper

826

Synthesis 2023, 55, 826–836
DOI: 10.1055/a-1976-4931

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N. L. C. Domingues*

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Synthesis

Development, Synthesis, and *in silico* Investigations of Novel Acyclic Allyl Fluoride Derivatives

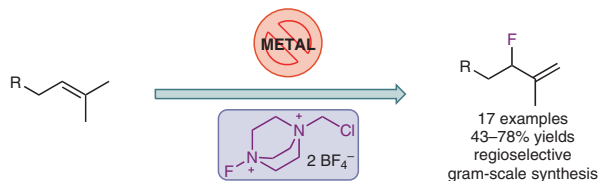
Paper

837

Synthesis 2023, 55, 837–845
DOI: 10.1055/a-1961-8013

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H. Singh
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Synthesis 2023, 55, 846–856
DOI: 10.1055/a-1960-0042

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