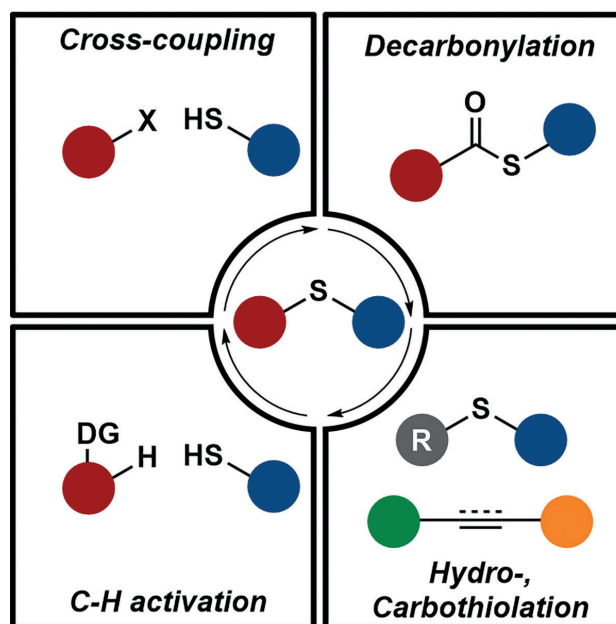


Synthesis

Reviews and Full Papers in Chemical Synthesis

December 1, 2022 • Vol. 54, 5139–5336



Recent Metal-Catalyzed Methods for Thioether Synthesis

V. J. Geiger, R. M. Oechsner, P. H. Gehrtz, I. Fleischer

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Synthesis

Recent Metal-Catalyzed Methods for Thioether Synthesis

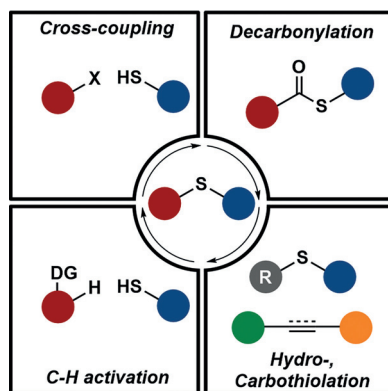
Review

5139

Synthesis 2022, 54, 5139–5167
DOI: 10.1055/a-1914-1231

V. J. Geiger
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Synthesis

Recent Advances for Chiral Sulfoxides in Asymmetric Catalysis

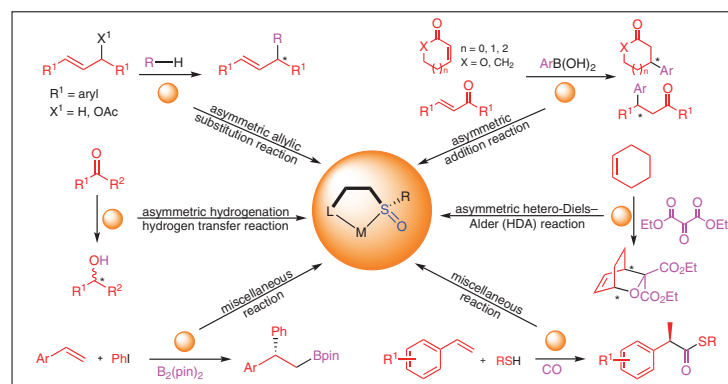
Short Review

5168

Synthesis 2022, 54, 5168–5185
DOI: 10.1055/a-1930-6979

M.-M. Yang
S. Wang
Z.-B. Dong*

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Huanggang Normal University,
P. R. of China



Synthesis

Synthesis 2022, 54, 5186–5191
DOI: 10.1055/a-1912-1029

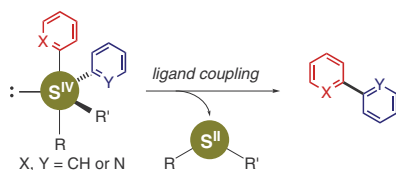
T. Morofuji*
N. Kano*

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Recent Progress in C(sp²)–C(sp²) Bond Formation Using Ligand Coupling on Sulfur(IV)

Short Review

5186



Synthesis

Synthesis 2022, 54, 5192–5202
DOI: 10.1055/a-1922-8846

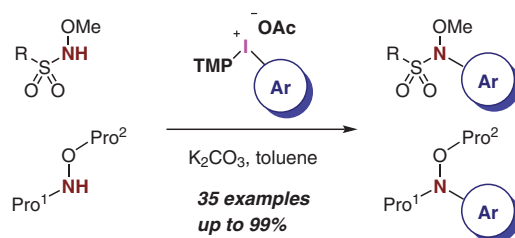
K. Kikushima*
A. Morita
E. E. Elboray
T. Bae
N. Miyamoto
Y. Kita*
T. Dohi*

Ritsumeikan University, Japan

Transition-Metal-Free *N*-Arylation of *N*-Methoxysulfonamides and *N,O*-Protected Hydroxylamines with Trimethoxyphenyliodonium (III) Acetates

Feature

5192



Synthesis

Synthesis 2022, 54, 5203–5214
DOI: 10.1055/a-1915-7916

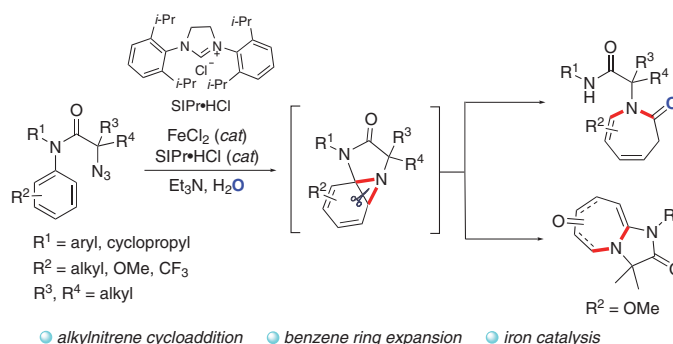
K. Wei
M. Jiang
S. Liang
W. Yu*

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P. R. of China

Iron-Catalyzed Benzene Ring Expansion of α -Azido-*N*-phenylamides

Feature

5203



R¹ = aryl, cyclopropyl
R² = alkyl, OMe, CF₃
R³, R⁴ = alkyl

Synthesis

Synthesis 2022, 54, 5215–5225
DOI: 10.1055/a-1891-0976

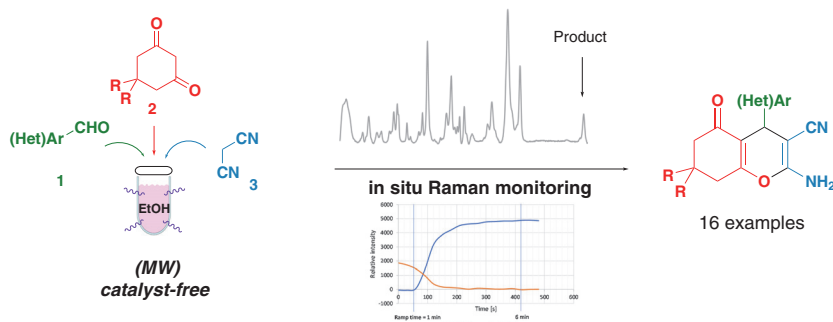
O. Hebert
C. Dubouilh-Benard
J. F. Campos
S. Berteina-Raboin
C. Fruit
T. Besson*

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Monitoring of Catalyst-Free Microwave-Assisted MCR-Type Synthesis of 2-Amino-3-cyano-4H-chromene Derivatives Using Raman Spectrometry

PSP

5215



Synthesis

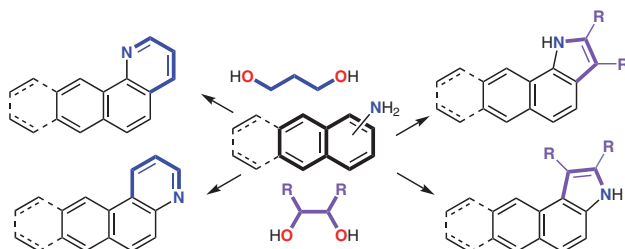
Synthesis 2022, 54, 5226–5232
DOI: 10.1055/a-1870-2631

N. Gonzalez-Sanchis
P. Perez-Quilez
D. Bellezza
A. Flor-Sanchez
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Polycyclic Aromatic N-Heterocycles (PANHs) from Naphthyl and Anthracenyl Amines and Diols

Paper

5226



Synthesis

Synthesis 2022, 54, 5233–5244
DOI: 10.1055/a-1890-7743

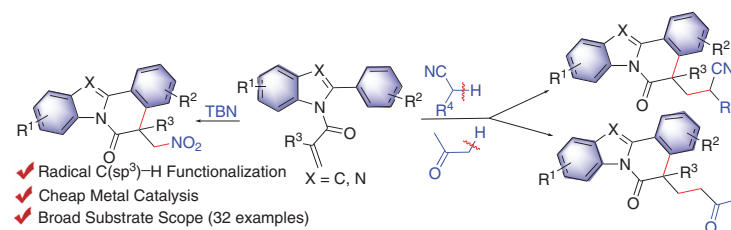
L.-L. Jiang
L.-T. Wang
H. Qiu
F.-L. Liu
X.-J. Huang
T.-T. Cao
G.-P. Ge*
Y.-L. Liu*
W.-T. Wei*

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Huaihua University, P. R. of China

Radical Cyclization of *N*-Methacryloyl-2-arylbenzimidazoles with Nitriles, Ketones, and *tert*-Butyl Nitrite under Mild Conditions

Paper

5233



Synthesis

Synthesis 2022, 54, 5245–5252
DOI: 10.1055/a-1899-5563

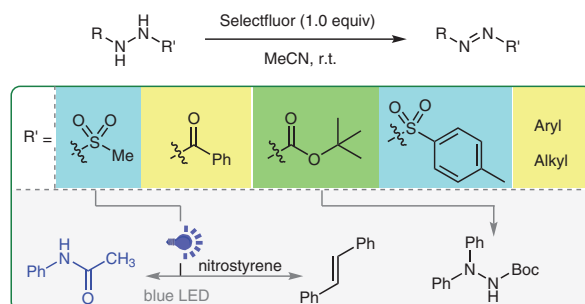
Y. Zhao*
S. Li
J. Cui
H. Wang
X. Kang
Y. Wang
L. Tian

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Selectfluor-Mediated Oxidative Dehydrogenation of Hydrazines: A Process for the Synthesis of Azo Compounds

Paper

5245



Synthesis

Synthesis 2022, 54, 5253–5260
DOI: 10.1055/a-1894-8826

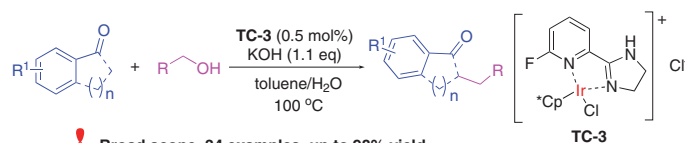
S. Wang
R. Miao
Y. Xia
Y. Wei
R. Luo
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Ir-Catalyzed α -Alkylation of Ketones with Alcohols: One-Step Access to Donepezil

Paper

5253



- Broad scope, 34 examples, up to 98% yield.
- Gram-scale and application in Donepezil synthesis in 98% yield.

Synthesis

Synthesis 2022, 54, 5261–5272
DOI: 10.1055/s-0042-1751357

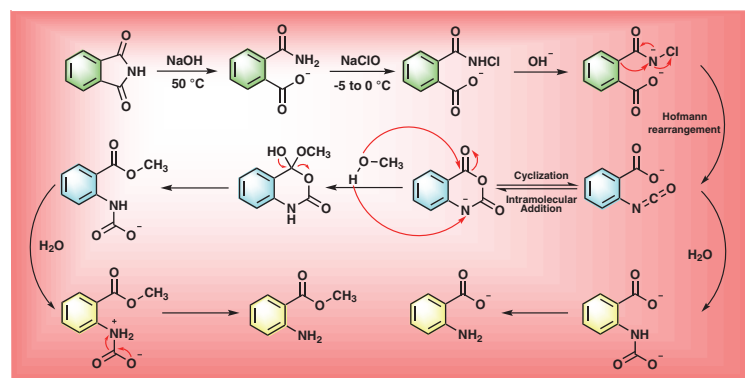
B. Wang
Y. Diao
J. Yuan
F. Zhang
H. Zhou
L. Du*

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Optimization of Methyl Anthranilate Synthesis Process by Response Surface Methodology and Its Reaction Mechanism

Paper

5261



Synthesis

Synthesis 2022, 54, 5273–5280
DOI: 10.1055/a-1856-1905

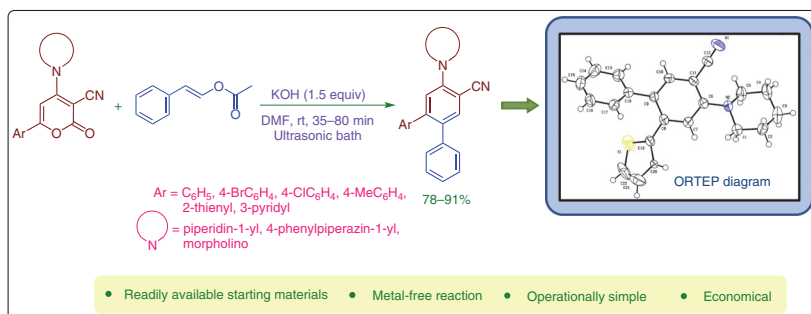
M. Krishnan
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Ultrasound-Assisted Rapid Synthesis of Functionalized 1,2-Teraryls by Ring Transformation Methodology

Paper

5273



Synthesis

Synthesis 2022, 54, 5281–5290
DOI: 10.1055/a-1900-3563

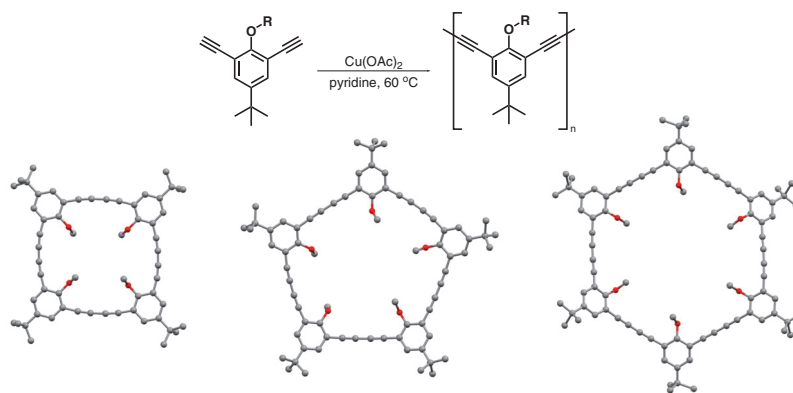
M. Małecki
D. Pawelczyk
B. Pigulski*
S. Szafert*
N. Gulia*

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Synthesis of Shape-Persistent *meta*-Arylene-Butadiynylene Macrocycles with a Different Ring Size

Paper

5281



Synthesis

Synthesis 2022, 54, 5291–5299
DOI: 10.1055/s-0041-1738424

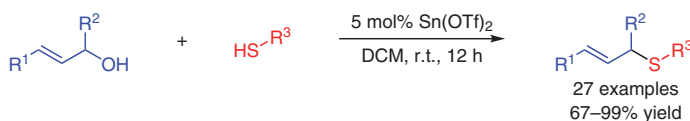
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Sn(OTf)₂-Catalyzed Allylic Substitution of Thiols to Allyl Alcohols: Access to Allyl Sulfides

Paper

5291



Synthesis

Synthesis 2022, 54, 5300–5310
DOI: 10.1055/a-1892-0253

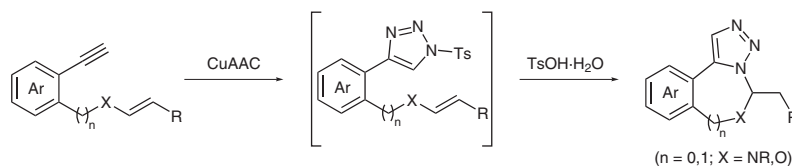
T. Zhou
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One-Pot Synthesis of 1,2,3-Triazole-Fused Polycyclic Systems via Sequential Annulation of 1,*n*-Enynes with Tosyl Azide

Paper

5300



- One-pot reaction
- Novel *N*-alkyl 1,2,3-triazole-fused structure
- 23 Examples, up to 96% yield

Synthesis

Synthesis 2022, 54, 5311–5323
DOI: 10.1055/a-1913-3105

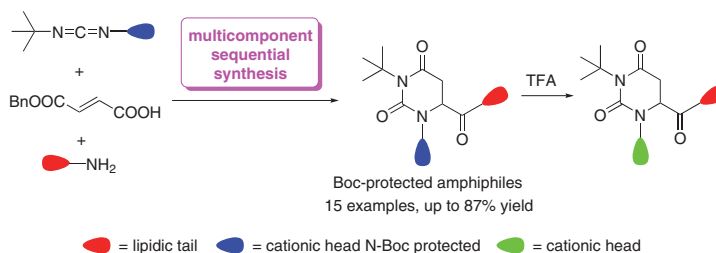
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Multi-Component Sequential Synthesis of Dihydroorotic Acid-Based Amphiphilic Molecules

Paper

5311



Synthesis

Synthesis 2022, 54, 5324–5336
DOI: 10.1055/a-1916-4510

R. Chatprecha
C. Kuhakarn
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Asymmetric Synthesis of *ent*-Anorisol A and Its Stereoisomers and Confirmation of the Absolute Configuration of Anorisol A Isolated from *Anogeissus rivularis*

Paper

5324

