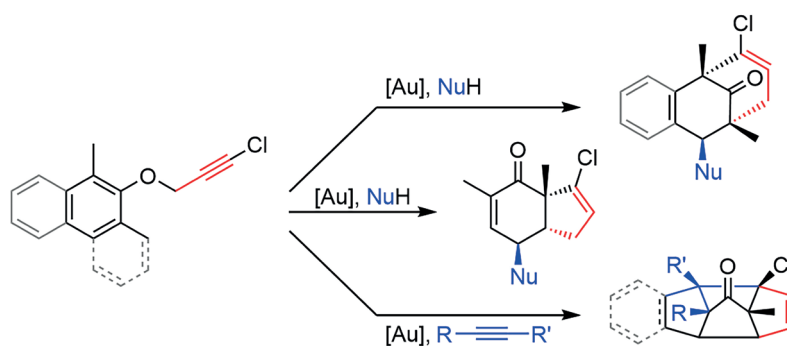


Synthesis

Reviews and Full Papers in Chemical Synthesis

December 15, 2023 • Vol. 55, 4049–4230



- One-pot synthesis of various polycycles
- Formation of up to six new C–C bonds
- Construction of α -quaternary carbonyl carbon centers
- Substrate-controlled enantiodivergent synthesis
- Excellent diastereoselectivity

Gold(I)-Catalyzed Dearomatization–Allenene Reaction for the Construction of Polycycles with Excellent Diastereoselectivity

N. Semleit, G. Haberhauer

24

Synthesis

Synthesis 2023, 55, 4049–4061
DOI: 10.1055/a-2114-5508

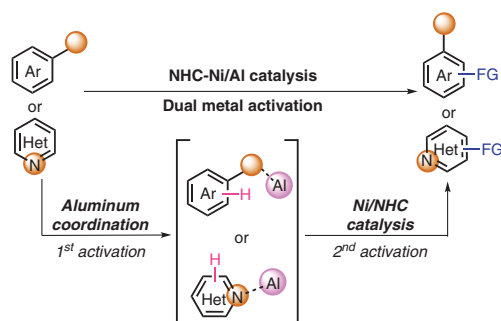
B. Jiang
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C–H Functionalization of Arenes via NHC-Supported Ni/Al Bimetallic Catalysis

Short Review

4049



Synthesis

Synthesis 2023, 55, 4062–4079
DOI: 10.1055/a-2124-3903

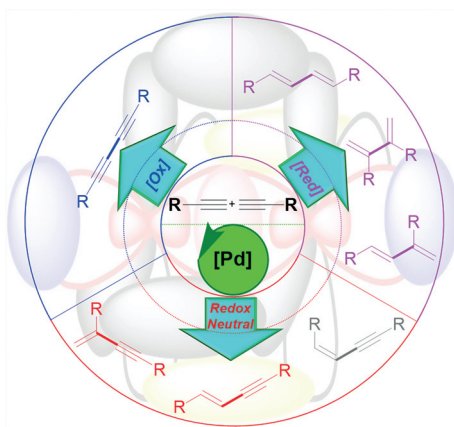
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Palladium-Catalyzed Homo-Dimerization of Terminal Alkynes

Short Review

4062



Synthesis

Synthesis **2023**, *55*, 4080–4090
DOI: 10.1055/a-2109-1642

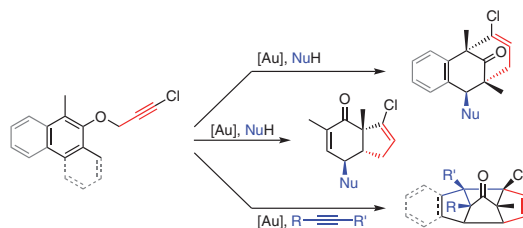
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Gold(I)-Catalyzed Dearomatization–Allenene Reaction for the Construction of Polycycles with Excellent Diastereoselectivity

Feature

4080



- One-pot synthesis of various polycycles
- Formation of up to six new C–C bonds
- Construction of α -quaternary carbonyl carbon centers
- Substrate-controlled enantiodivergent synthesis
- Excellent diastereoselectivity

Synthesis

Synthesis **2023**, *55*, 4091–4095
DOI: 10.1055/a-2122-4287

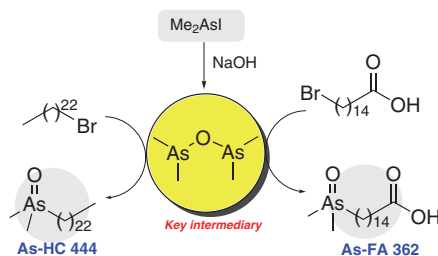
M. A. Chacon-Teran
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Improved Syntheses of an Arseno-Fatty Acid (As-FA 362) and an Arseno-Hydrocarbon (As-HC 444)

PSP

4091



Synthesis

Synthesis **2023**, *55*, 4096–4102
DOI: 10.1055/s-0040-1720093

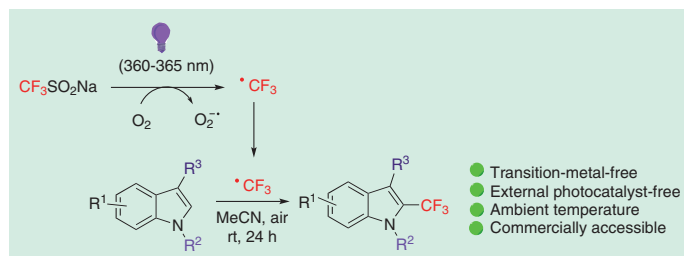
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Photoinduced Synthesis of 2-Trifluoromethylated Indoles through Oxidative Trifluoromethylation Using Langlois' Reagent in the Absence of External Photocatalyst

Paper

4096



- Transition-metal-free
- External photocatalyst-free
- Ambient temperature
- Commercially accessible

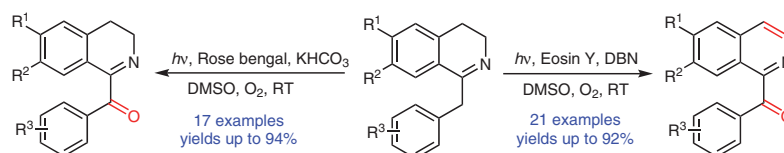
Synthesis

Synthesis 2023, 55, 4103–4112
DOI: 10.1055/a-2160-8903

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Visible-Light-Mediated Oxidation of 1-Benzyl-3,4-dihydroisoquinolines with Dioxxygen: A Switchable Synthesis of 1-Benzoylisoquinolines and 1-Benzoyl-3,4-dihydroisoquinolines

Paper
4103



38 examples; metal-free oxidation; O₂ as the oxidant; natural product syntheses

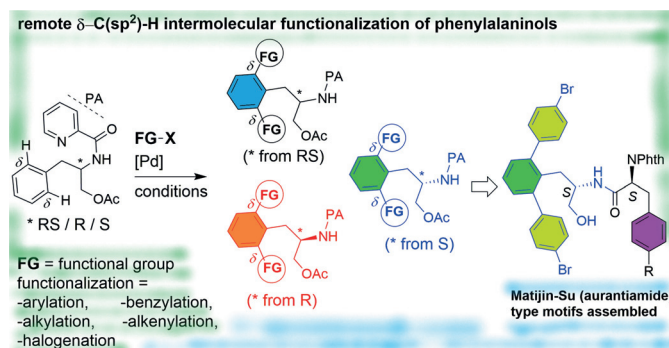
Synthesis

Synthesis 2023, 55, 4113–4144
DOI: 10.1055/a-2147-3518

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Pd-Catalyzed Remote δ -C(sp²)-H Functionalization in Phenylalaninol: Expanding the Library of Phenylalaninol

Paper
4113



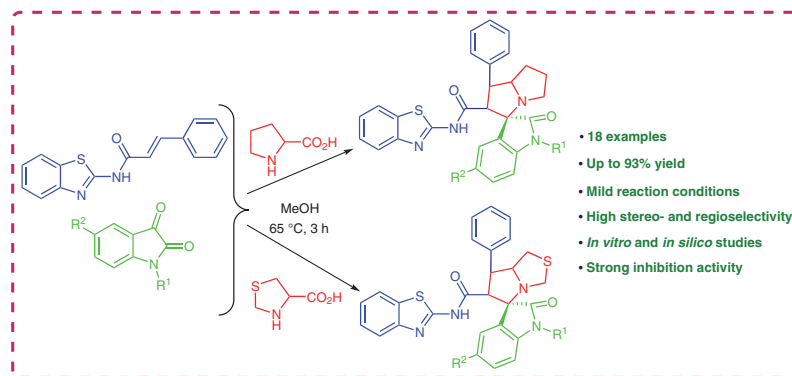
Synthesis

Synthesis 2023, 55, 4145–4162
DOI: 10.1055/a-2161-0283

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R. Ramu
S. Sreenivasa
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Stereoselective Synthesis of Highly Functionalized Aminobenzothiazole-Fused Spirooxindole Derivatives: *in silico* and *in vitro* Anti-Diabetic Studies

Paper
4145



Synthesis

Synthesis 2023, 55, 4163–4172
DOI: 10.1055/a-2152-0671

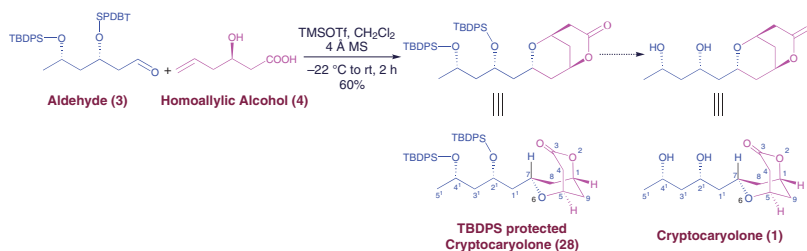
D. O. Biradar
Y. D. Mane
J. S. Yadav*
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Prins Cyclization: Novel Strategy towards the Diastereoselective Total Synthesis of (–)-Cryptocaryolone

Paper

4163



Synthesis

Synthesis 2023, 55, 4173–4180
DOI: 10.1055/a-2128-5408

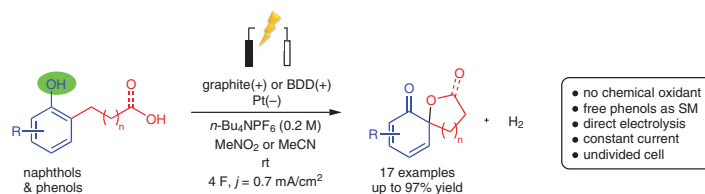
S. Sarvi Beigbaghlou
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Electrochemical Dearomatizing Spirolactonization and Spiroetherification of Naphthols and Phenols

Paper

4173



Synthesis

Synthesis 2023, 55, 4181–4190
DOI: 10.1055/a-2164-2075

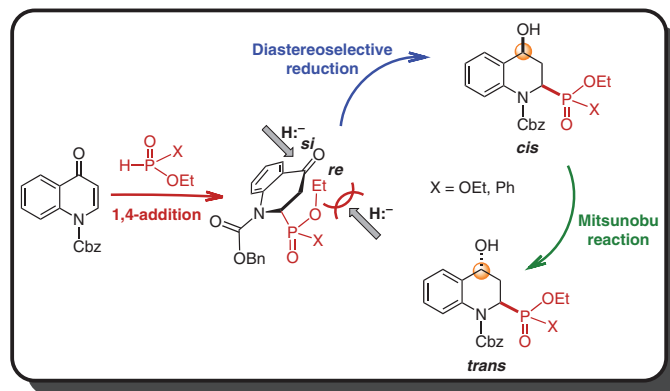
M. Ordóñez*
R. O. Argüello-Velasco*
T. Miranda-Blancas
I. Romero-Estudillo
V. Labastida-Galván

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First Stereoselective Synthesis of Diethyl *cis*- and *trans*-(4-Hydroxy-1,2,3,4-tetrahydroquinolin-2-yl)phosphonates and Ethyl Phenylphosphinates from Quinolin-4(1*H*)-one

Paper

4181



Synthesis

Synthesis 2023, 55, 4191–4203
DOI: 10.1055/s-0042-1751489

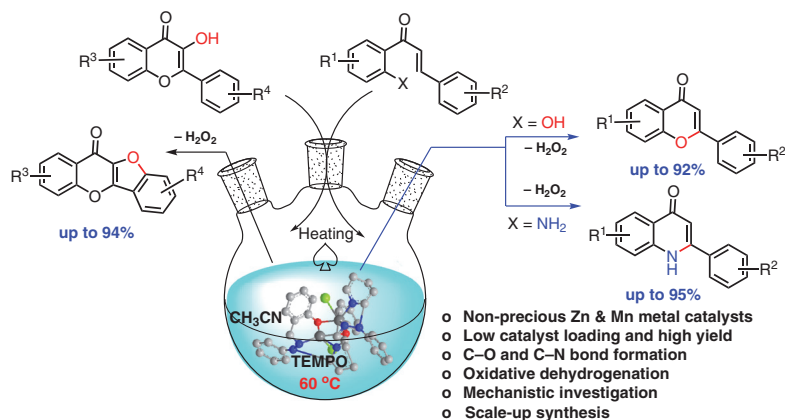
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Oxidative Cyclization Reactions Catalyzed by Designed Transition-Metal Complexes: A New Strategy for the Synthesis of Flavone, Quinolone, and Benzofuran Derivatives

Paper

4191



Synthesis

Synthesis 2023, 55, 4204–4212
DOI: 10.1055/a-2159-1611

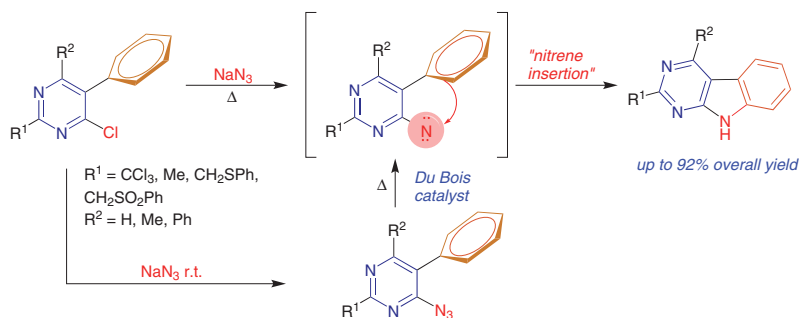
U. J. Vargas-Cruz
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Nitrene Cyclization of 2-(Trichloromethyl)-5-phenylpyrimidines: Application to the Synthesis of 2-(Trichloromethyl)pyrimido [4,5-*b*]indoles and Related Heterocycles

Paper

4204



Synthesis

Synthesis 2023, 55, 4213–4223
DOI: 10.1055/a-2179-1250

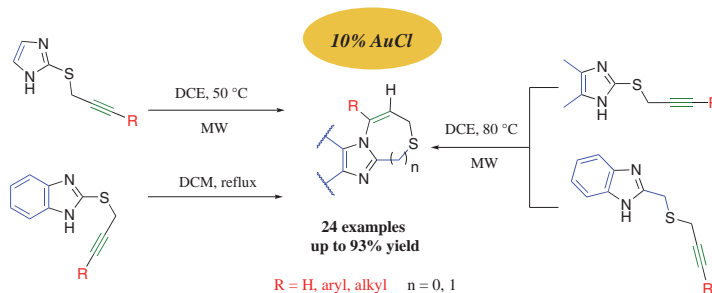
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Straightforward Approach to 5-Substituted 7*H*-Imidazo[2,1-*b*] [1,3]thiazines via Cyclization of 2-Alkynylthioimidazoles

Paper

4213



Synthesis 2023, 55, 4224–4230
DOI: 10.1055/s-0042-1751493

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