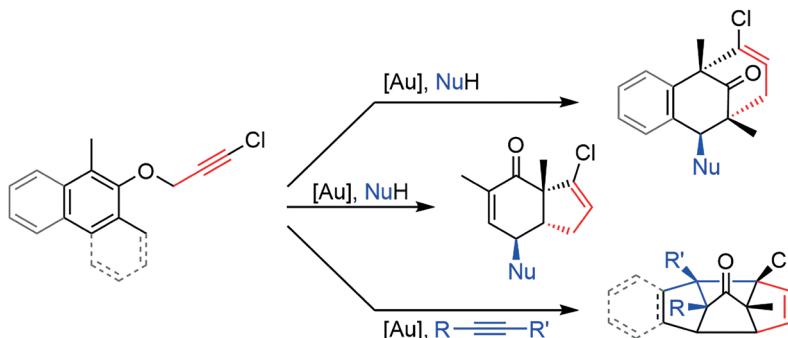


# Synthesis

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  $\alpha$ -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

 Thieme

## Synthesis

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

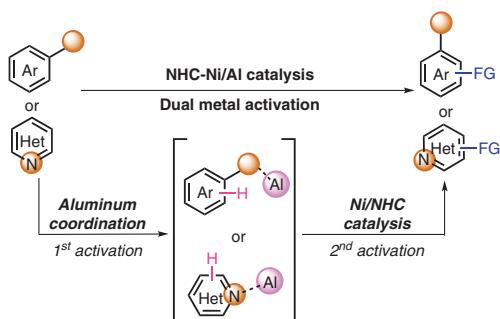
## C-H Functionalization of Arenes via NHC-Supported Ni/Al Bimetallic Catalysis

## Short Review

4049

B. Jiang  
S.-L. Shi\*

University of Chinese Academy  
of Sciences, P. R. of China



## Synthesis

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

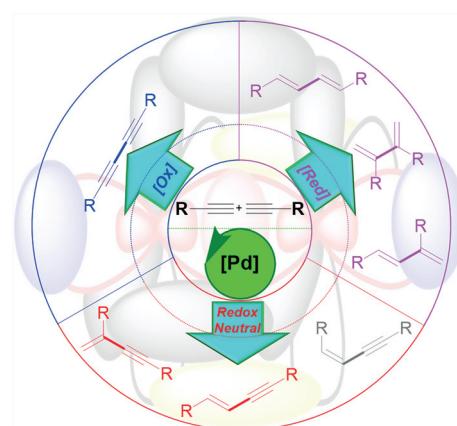
## Palladium-Catalyzed Homo-Dimerization of Terminal Alkynes

## Short Review

4062

X. Chen  
H.-Y. Guo  
X.-Y. Zhou\*  
M. Bao\*

Liaocheng Normal University,  
P. R. of China  
Dalian University of Technology,  
P. R. of China

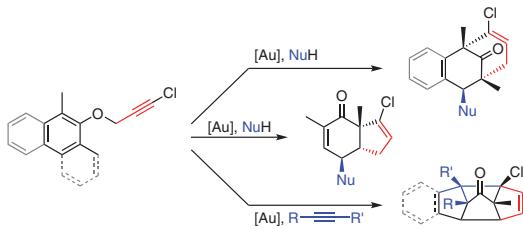


**Synthesis**

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

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

4080

**N. Semleit****G. Haberhauer\***Universität Duisburg-Essen,  
Germany

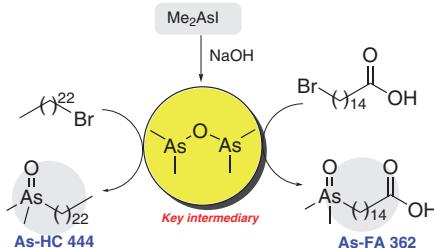
- One-pot synthesis of various polycycles
- Formation of up to six new C–C bonds
- Construction of  $\alpha$ -quaternary carbonyl carbon centers
- Substrate-controlled enantiodivergent synthesis
- Excellent diastereoselectivity

**Synthesis**

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

**Improved Syntheses of an Arseno-Fatty Acid (As-FA 362) and an Arseno-Hydrocarbon (As-HC 444)****PSP**

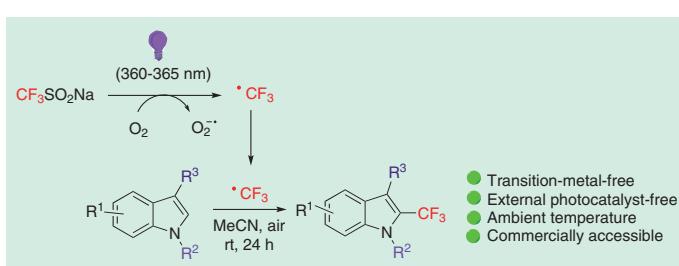
4091

**M. A. Chacon-Teran****S. Bhattacharjee****J. D. Bailoo****A. Deonarine\*****M. Findlater\***University of California, USA  
Texas Tech University, USA**Synthesis**

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

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

4096

**S. Das****H. K. Indurthi****A. Kumari****D. K. Sharma\***Indian Institute of Technology–  
Banaras Hindu University  
(IIT-BHU),  
India

**Synthesis**

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

P. Ma

H. Wu\*

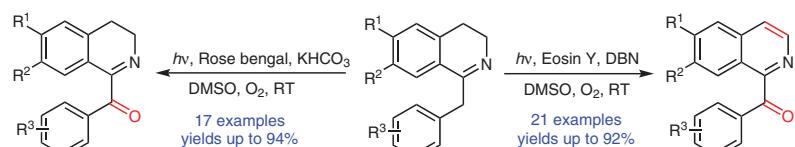
H. Gan\*

Nanjing Tech University,  
P. R. of China

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

**Paper**

4103



38 examples; metal-free oxidation; O<sub>2</sub> as the oxidant; natural product syntheses

**Synthesis**

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

P. Singh

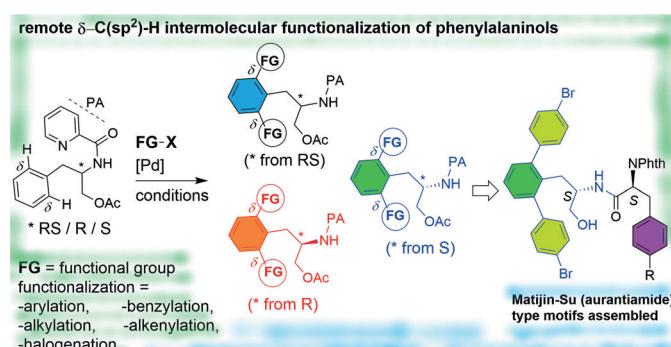
S. A. Babu\*

Indian Institute of Science Education and Research (IISER)  
Mohali, India

## Pd-Catalyzed Remote δ-C(sp<sup>2</sup>)-H Functionalization in Phenylalaninol: Expanding the Library of Phenylalaninols

**Paper**

4113

**Synthesis**

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

**Paper**

4145

N. Nivetha

S. M. Patil

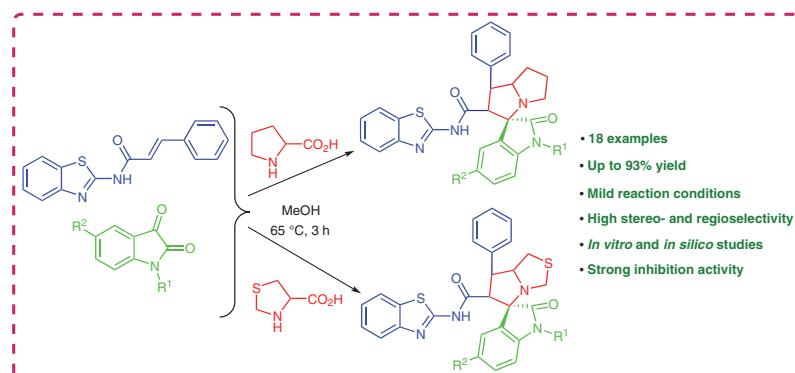
R. Ramu

S. Sreenivasa

S. Velmathi\*

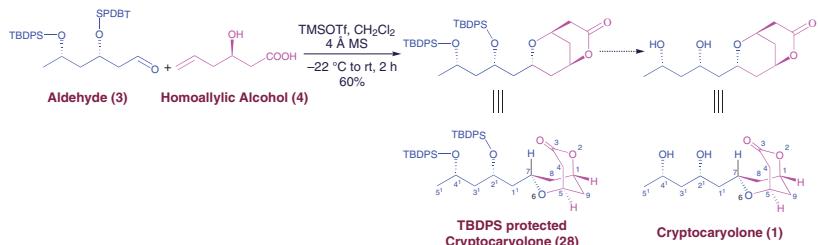
National Institute of Technology,  
India

## Stereoselective Synthesis of Highly Functionalized Aminobenzothiazole-Fused Spirooxindole Derivatives: *in silico* and *in vitro* Anti-Diabetic Studies

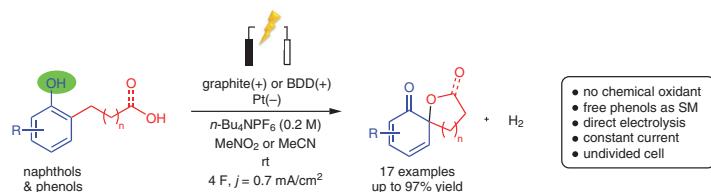


**D. O. Biradar**  
**Y. D. Mane**  
**J. S. Yadav\***  
**B. V. Reddy\***

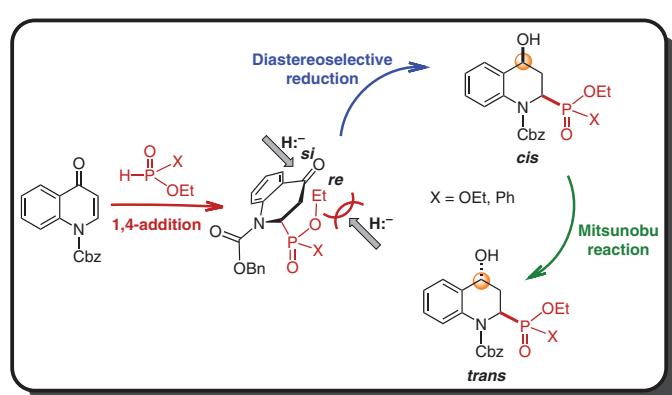
Indian Institute of Chemical Technology, India



**S. Sarvi Beigbaghlou**  
**R. S. Yafele**  
**M. Kalek\***  
 University of Warsaw, Poland



**M. Ordóñez\***  
**R. O. Argüello-Velasco\***  
**T. Miranda-Blancas**  
**I. Romero-Estudillo**  
**V. Labastida-Galván**  
 Universidad Autónoma del Estado de Morelos, Mexico

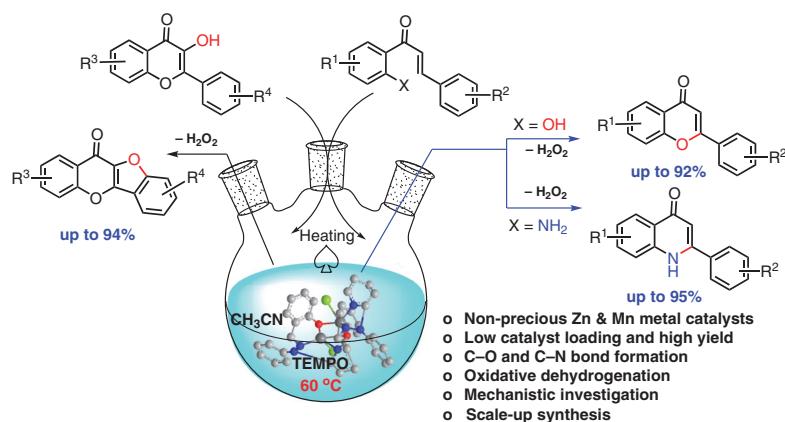


A. Singh

S. Singh

K. Ghosh \*

N. Ahmed \*

Indian Institute of Technology  
Roorkee, India

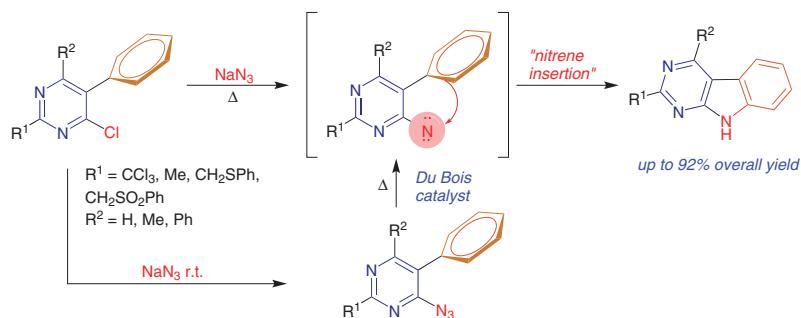
U. J. Vargas-Cruz

J. G. Peralta-Chávez

M. A. Romero-Reyes

D. Martínez-Otero

M. Romero-Ortega \*

Universidad Autónoma del  
Estado de México, México

I. Misiūnaitė

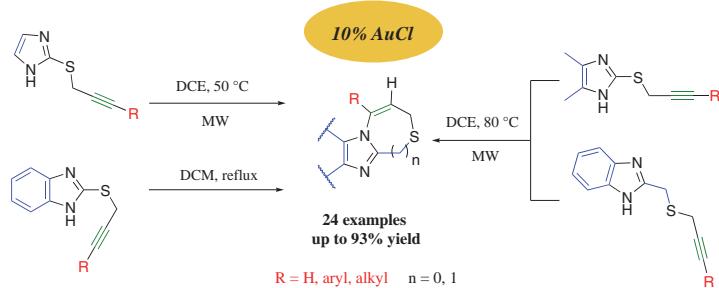
R. Bajarūnaitė

R. Bukšnaitienė

A. Brukštus

I. Žutautė \*

Vilnius University, Lithuania



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B. L. Springer  
K. Holzschnieder  
F. Mohr  
S. F. Kirsch\*

Bergische Universität Wuppertal,  
Germany

