Synthesis

Reviews and Full Papers in Chemical Synthesis

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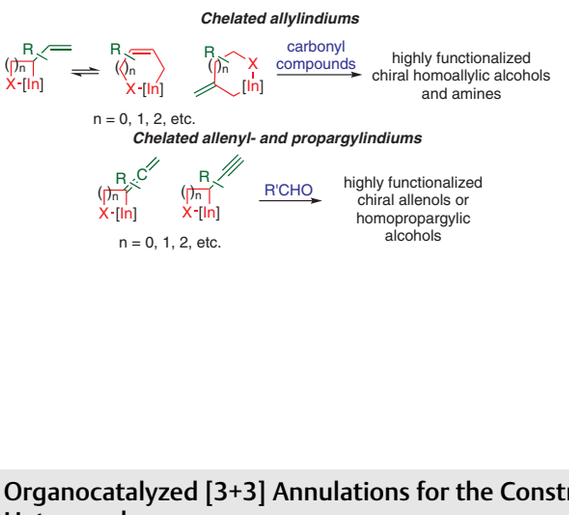
Synthesis

Synthesis **2020**, *52*, 1147–1180
DOI: 10.1055/s-0039-1690817

B. K. Zambroń*
Institute of Organic Chemistry, Polish Academy of Sciences, Poland

Internal Chelation within Functionalized Organoindium Reagents: Prospects for Regio- and Stereocontrol in the Allylation, Propargylation and Allenylation of Carbonyl Compounds

Review



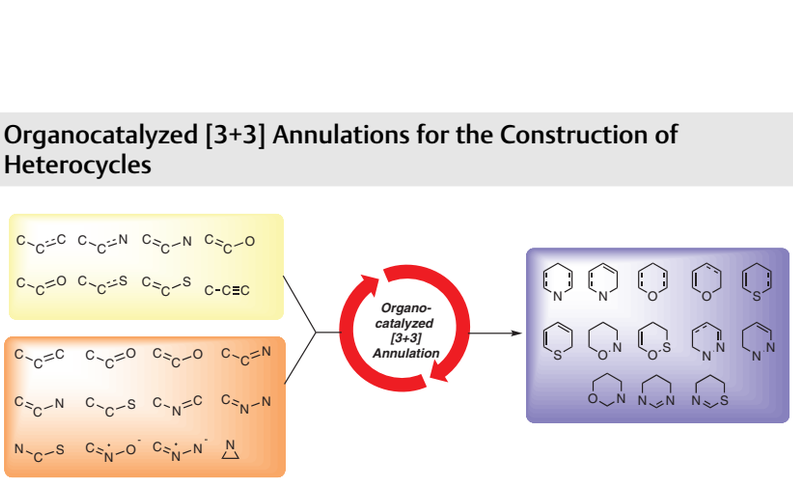
Synthesis

Synthesis **2020**, *52*, 1181–1202
DOI: 10.1055/s-0039-1690810

Y. Zhu
Y. Huang*
Nankai University, P. R. of China

Organocatalyzed [3+3] Annulations for the Construction of Heterocycles

Short Review



Synthesis

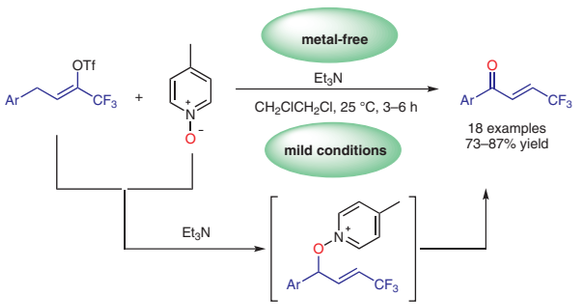
Synthesis **2020**, *52*, 1203–1210
DOI: 10.1055/s-0039-1690054

Oxidation of 4-Aryl-1,1,1-trifluorobut-2-en-2-yl Trifluoromethanesulfonates by 4-Picoline-*N*-Oxide: A Novel Approach to β-Trifluoromethyl-α,β-enones

Feature

1203

D. Li
S. Lv
J. Qu
Y. Zhou*
Dalian University of Technology, P. R. of China



Synthesis

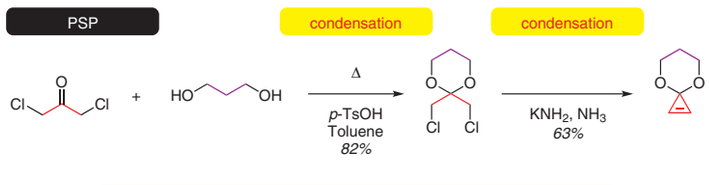
Synthesis, **2020**, 1211–1214
DOI: 10.1055/s-0039-1690830

Practical Preparation of Cyclopropenone 1,3-Propanediol Ketal

PSP

1211

F. F. Mulks*
R. Heckershoff
M. Zimmer
A. S. K. Hashmi
Ruprecht-Karls Universität Heidelberg, Germany



simple C_3 and dioxaspirooctene building block
detailed step-by-step guide for 10 g scale synthesis

Synthesis

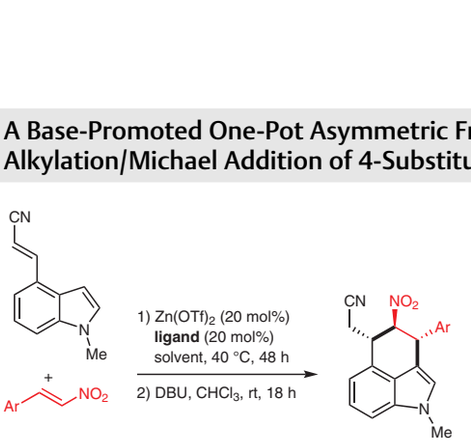
Synthesis **2020**, *52*, 1215–1222
DOI: 10.1055/s-0039-1690241

A Base-Promoted One-Pot Asymmetric Friedel–Crafts Alkylation/Michael Addition of 4-Substituted Indoles

Special Topic

1215

R. Connon
L. Carroll
P. J. Guiry*
University College Dublin, Ireland



Synthesis

Synthesis of Phenanthrenes via Palladium-Catalyzed Three-Component Domino Reaction of Aryl Iodides, Internal Alkynes, and *o*-Bromobenzoic Acids

Special Topic

Synthesis **2020**, *52*, 1223–1230
DOI: 10.1055/s-0039-1690737

Y. Yang
L. Zhou
X. Yang
X. Luo
G. Deng
Y. Yang*
Y. Liang*
Hunan Normal University, P. R. of China

- readily available starting materials
- broad substrate scope
- step economy and three C–C bonds formation
- involving C–H activation and decarboxylation

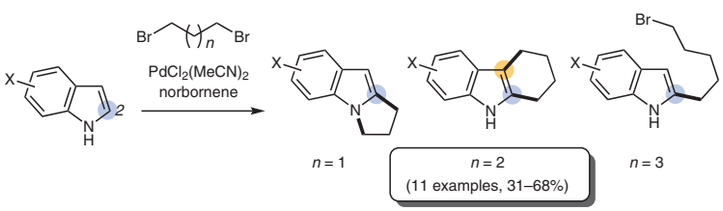
Synthesis

Annulation of Indoles with 1,n-Dibromoalkanes by a Pd(II)-Catalyzed and Norbornene-Mediated Reaction Cascade

Special Topic

Synthesis **2020**, *52*, 1231–1238
DOI: 10.1055/s-0039-1690693

M. Henkel
T. Bach*
Technische Universität München, Germany



Synthesis

Cobalt(III)-Catalyzed Diastereoselective Three-Component C–H Bond Addition to Butadiene and Activated Ketones

Special Topic

Synthesis **2020**, *52*, 1239–1246
DOI: 10.1055/s-0039-1690741

Z. Shen
C. Li
B. Q. Mercado
J. A. Ellman*
Yale University, USA

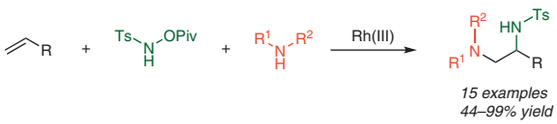
Synthesis

Synthesis **2020**, *52*, 1247–1252
DOI: 10.1055/s-0039-1690756

S. Lee
Y. J. Jang
E. J. T. Phipps
H. Lei
T. Rovis*
Columbia University, USA

Rhodium(III)-Catalyzed Three-Component 1,2-Diamination of Unactivated Terminal Alkenes

Special Topic



15 examples
44–99% yield

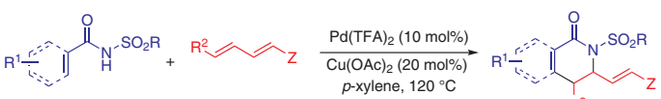
Synthesis

Synthesis **2020**, *52*, 1253–1265
DOI: 10.1055/s-0039-1690219

M. Sun
J. Li
W. Chen
H. Wu
J. Yang
Z. Wang*
Taizhou University,
P. R. of China

Palladium-Catalyzed [4+2] Annulation of Aryl and Alkenyl Carboxamides with 1,3-Dienes via C–H Functionalization: Synthesis of 3,4-Dihydroisoquinolones and 5,6-Dihydropyridinones

Special Topic



R^2 = H, Z = aryl, alkyl, EWG
R^2 = Me, Z = COOEt

- 37 examples, up to 99% yield
- good functional group tolerance
- high stereoselectivity
- air as the terminal oxidant

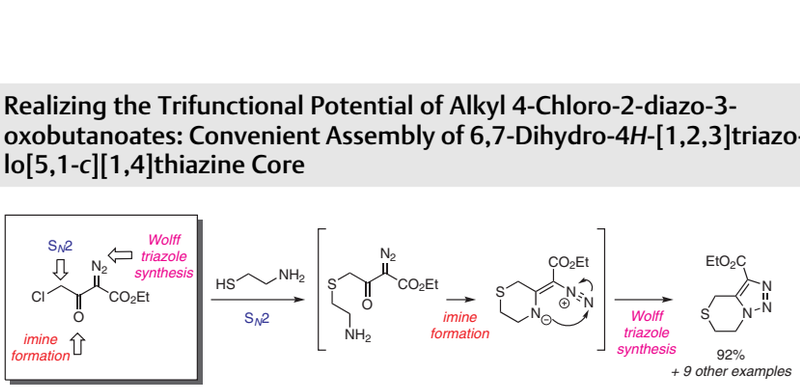
Synthesis

Synthesis **2020**, *52*, 1266–1272
DOI: 10.1055/s-0039-1690802

D. Dar'in
O. Khoroshilova
G. Kantin
M. Krasavin*
Saint Petersburg State University, Russian Federation

Realizing the Trifunctional Potential of Alkyl 4-Chloro-2-diazo-3-oxobutanoates: Convenient Assembly of 6,7-Dihydro-4*H*-[1,2,3]triazolo[5,1-*c*][1,4]thiazine Core

Paper



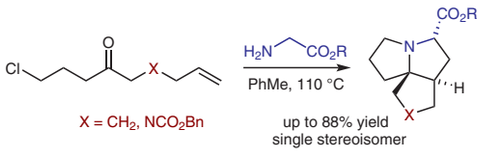
92%
+ 9 other examples

Synthesis

Synthesis **2020**, *52*, 1273–1278
DOI: 10.1055/s-0039-1691588

A. Choi
J. Castle
R. Saruengkhanphasit
I. Coldham*
University of Sheffield, UK

Synthesis of Spirocyclic Amines by 1,3-Dipolar Cycloaddition of Azomethine Ylides and Azomethine Imines

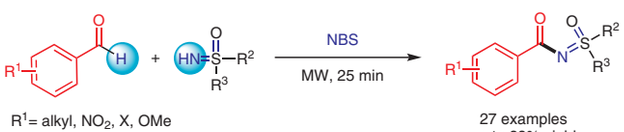


Synthesis

Synthesis **2020**, *52*, 1279–1286
DOI: 10.1055/s-0039-1691589

K. K. Rajbongshi
S. Ambala
T. Govender
H. G. Kruger
P. I. Arvidsson*
T. Naicker*
University of KwaZuluNatal, South Africa

Microwave-Accelerated *N*-Acylation of Sulfoximines with Aldehydes under Catalyst-Free Conditions



R^1 = alkyl, NO_2, X, OMe
R^2, R^3 = aryl, alkyl

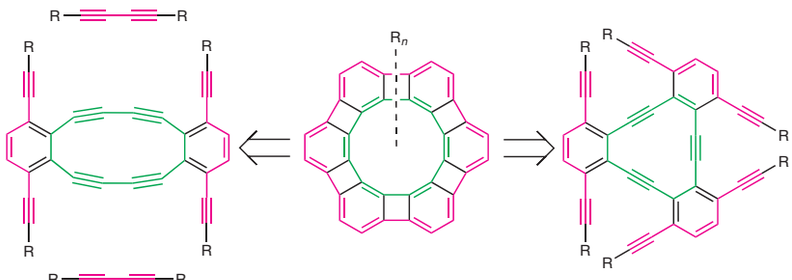
27 examples
up to 88% yield

Synthesis

Synthesis **2020**, *52*, 1287–1300
DOI: 10.1055/s-0039-1690050

U. Dahlmann
K. P. C. Vollhardt*
University of California at Berkeley, USA

Oligoether-Substituted Derivatives of Carbon-Rich 1,4,7,10,13,16-Hexaethynyltribenzo[*a*,*e*,*i*]cyclododeca-5,11,17-triyne ($C_{36}H_{12}$) and 1,4,9,12-Tetrakis(ethynyl)dibenzo[*a*,*g*]cyclododeca-5,7,13,15-tetrayne ($C_{28}H_8$): Potential Precursors to the Circular [6]Phenylene ('Antikekulene') Frame



R = $CH_2OCH_2CH_2OCH_2CH_2OCH_2CH_3$ or *p*-$C_6H_4OCH_2CH_2OCH_2CH_2OCH_3$

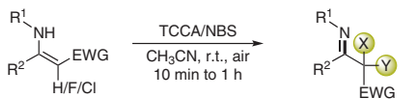
Synthesis

Synthesis **2020**, *52*, 1301–1314
DOI: 10.1055/s-0039-1690819

C. Qiu
H. Yu
C. Qiu
F. Li*
T. Suo
C. Wang
S. Bie
Z. Li*

Tianjin University of Traditional Chinese Medicine, P. R. of China

Metal-Free Halogenation of *N*-Substituted Enaminoesters and Enaminones: A Facile Access to Functionalized α,α-Dihaloimines



- Metal-free
- Inexpensive
- Mild conditions
- Ample scope
- Scalable and safe
- Up to 99% yield

R1 = aryl, alkyl
R2 = het/aryl, alkyl
EWG = CO_2Et, CO_2Bn, COPh, CN

X = **Y** = Cl, 26 examples
X = **Y** = Br, 23 examples
X = F/Cl, **Y** = Cl/Br, 3 examples