

## Synthesis

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

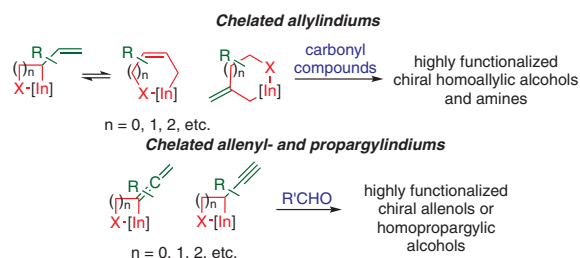
**B. K. Zambrón\***

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

1147



## Synthesis

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

**Y. Zhu**

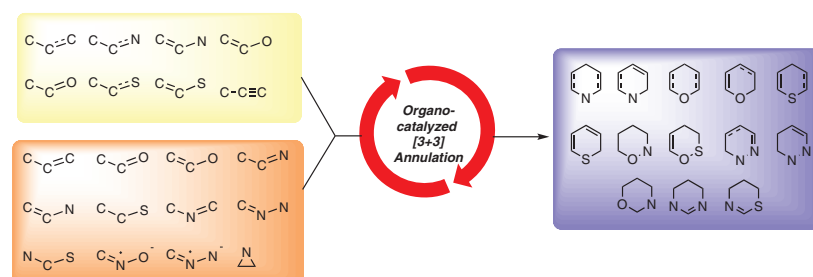
**Y. Huang\***

Nankai University, P. R. of China

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

Short Review

1181



## Synthesis

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

D. Li

S. Lv

J. Qu

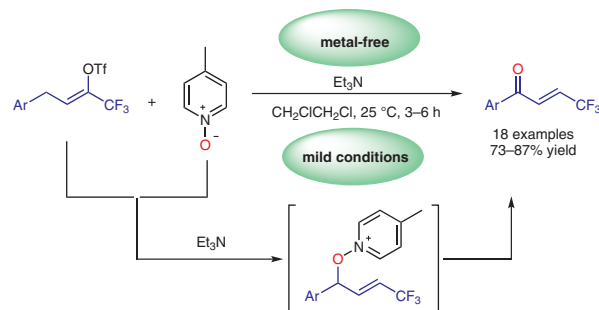
Y. Zhou\*

Dalian University of Technology,  
P. R. of China

### Oxidation of 4-Aryl-1,1,1-trifluorobut-2-en-2-yl Trifluoromethanesulfonates by 4-Picoline-*N*-Oxide: A Novel Approach to $\beta$ -Trifluoromethyl- $\alpha,\beta$ -enones

Feature

1203



## Synthesis

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

F. F. Mulks\*

R. Heckershoff

M. Zimmer

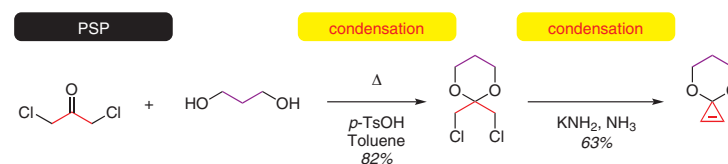
A. S. K. Hashmi

Ruprecht-Karls Universität Hei-  
delberg, Germany

### Practical Preparation of Cyclopropenone 1,3-Propanediol Ketal

PSP

1211



simple C<sub>3</sub> 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

R. Connon

L. Carroll

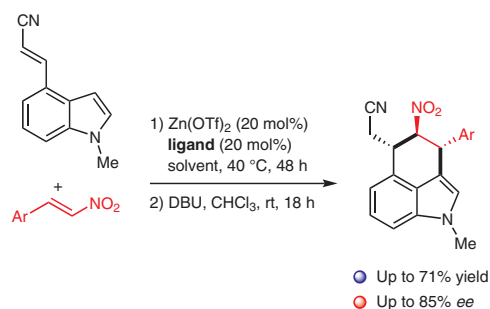
P. J. Guiry\*

University College Dublin,  
Ireland

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

Special Topic

1215



## Synthesis

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

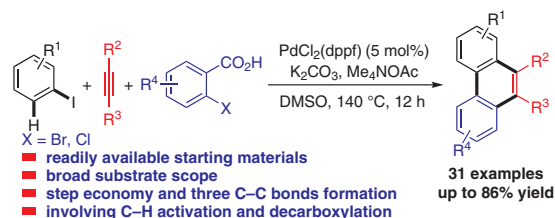
Y. Yang  
L. Zhou  
X. Yang  
X. Luo  
G. Deng  
Y. Yang\*  
Y. Liang\*

Hunan Normal University,  
P. R. of China

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

## Special Topic

1223



## Synthesis

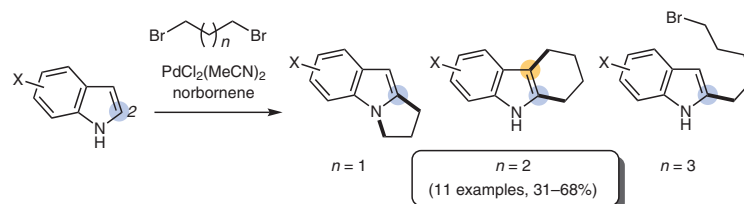
*Synthesis* 2020, 52, 1231–1238  
DOI: 10.1055/s-0039-1690693

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

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

## Special Topic

1231



## Synthesis

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

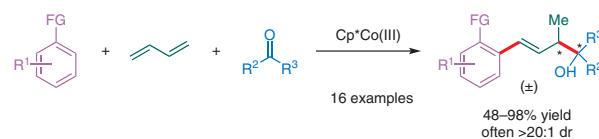
Z. Shen  
C. Li  
B. Q. Mercado  
J. A. Ellman\*

Yale University, USA

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

## Special Topic

1239



## Synthesis

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

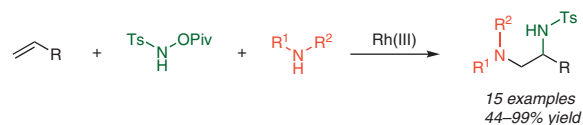
S. Lee  
Y. J. Jang  
E. J. T. Phipps  
H. Lei  
T. Rovis\*

Columbia University, USA

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

## Special Topic

1247



## Synthesis

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

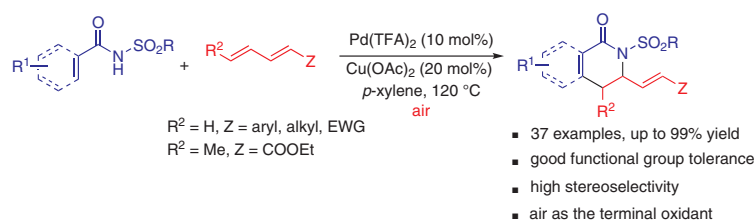
M. Sun  
J. Li  
W. Chen  
H. Wu  
J. Yang  
Z. Wang\*

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

1253



## Synthesis

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

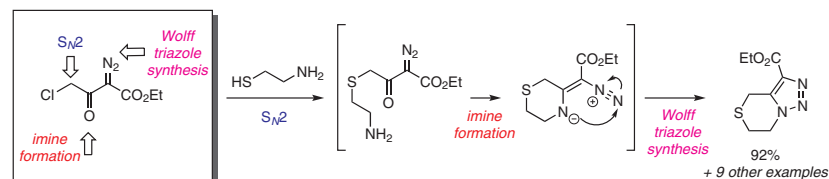
D. Dar'in  
O. Khoroshilova  
G. Kantin  
M. Krasavin\*

Saint Petersburg State University,  
Russian Federation

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

## Paper

1266



## Synthesis

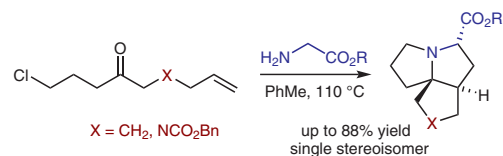
*Synthesis* 2020, 52, 1273–1278  
DOI: 10.1055/s-0039-1691588

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

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

Paper

1273



## 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

Paper

1279



## Synthesis

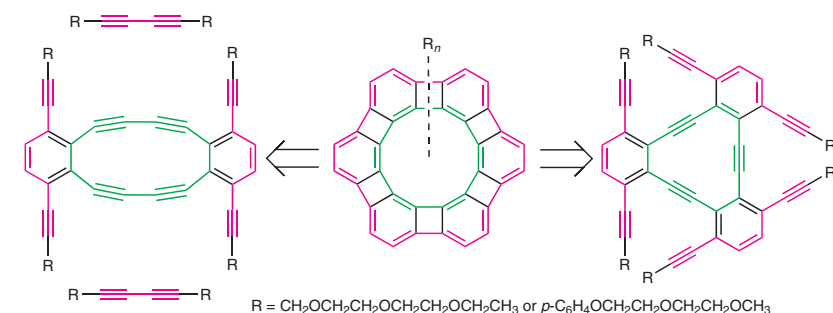
*Synthesis* 2020, 52, 1287–1300  
DOI: 10.1055/s-0039-1690050

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-triynyl ( $\text{C}_{36}\text{H}_{12}$ ) and 1,4,9,12-Tetrakis(ethynyl)dibenzo[*a,g*]cyclododeca-5,7,13,15-tetrayne ( $\text{C}_{28}\text{H}_8$ ): Potential Precursors to the Circular [6]Phenylene ('Antikekulene') Frame

Paper

1287



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

1301

C. Qiu

H. Yu

C. Qiu

F. Li\*

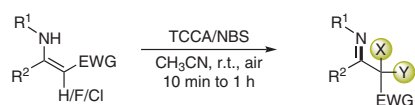
T. Suo

C. Wang

S. Bie

Z. Li\*

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



$R^1$  = aryl, alkyl  
 $R^2$  = het/aryl, alkyl  
EWG =  $\text{CO}_2\text{Et}$ ,  
 $\text{CO}_2\text{Bn}$ ,  $\text{COPh}$ ,  $\text{CN}$

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

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