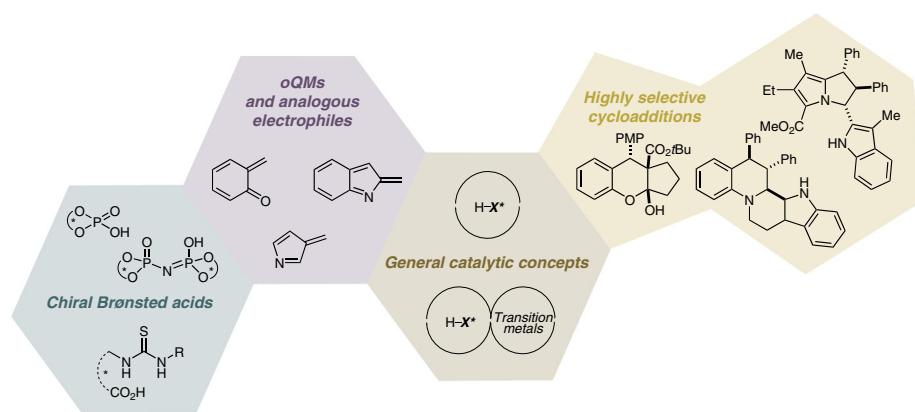


# Synthesis

Reviews and Full Papers in Chemical Synthesis

July 19, 2022 • Vol. 54, 3125–3306



Asymmetric Brønsted Acid Catalyzed Cycloadditions of *ortho*-Quinone Methides and Related Compounds

C. Dorsch, C. Schneider

14

## Synthesis

Synthesis 2022, 54, 3125–3141  
DOI: 10.1055/a-1781-6538

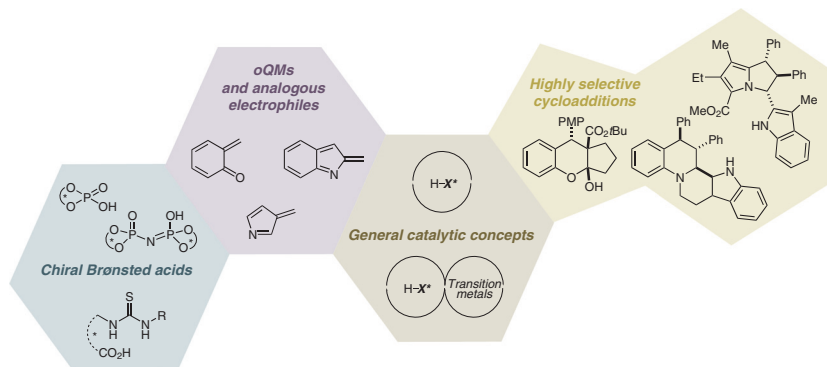
C. Dorsch  
C. Schneider\*

Universität Leipzig, Germany

## Asymmetric Brønsted Acid Catalyzed Cycloadditions of *ortho*-Quinone Methides and Related Compounds

Review

3125



## Synthesis

Synthesis 2022, 54, 3142–3161  
DOI: 10.1055/a-1792-6579

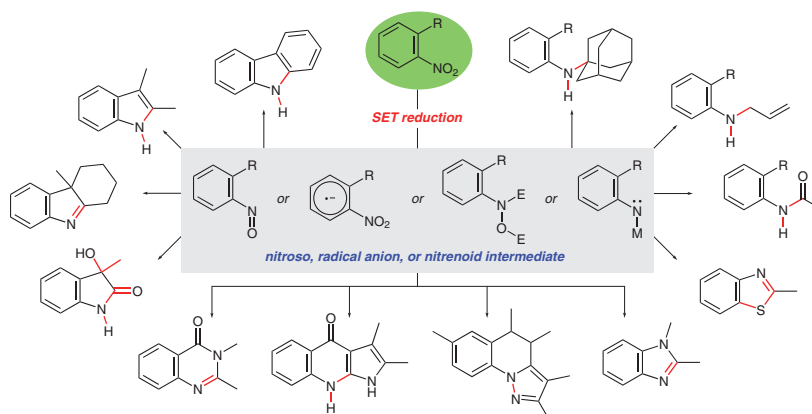
H. Zhu  
T. G. Driver\*

University of Illinois at Chicago,  
USA

## Recent Advances to Mediate Reductive Processes of Nitroarenes Using Single-Electron Transfer, Organomagnesium, or Organozinc Reagents

Short Review

3142



## Synthesis

Synthesis 2022, 54, 3162–3179  
DOI: 10.1055/a-1794-8355

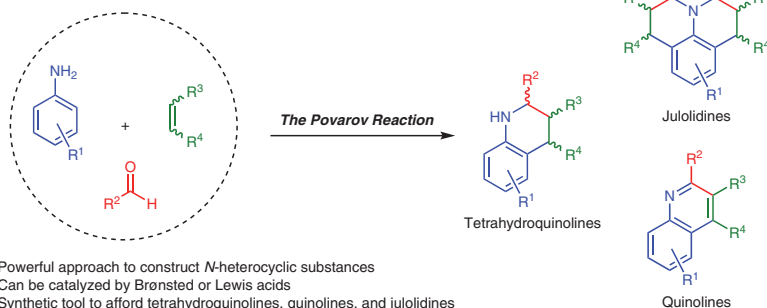
W. Ferreira de Paiva  
Y. de Freitas Rego  
Á. de Fátima\*  
S. A. Fernandes\*

Universidade Federal de Viçosa,  
Brazil  
Universidade Federal de Minas  
Gerais, Brazil

## The Povarov Reaction: A Versatile Method to Synthesize Tetrahydroquinolines, Quinolines and Julolidines

## Short Review

3162



## Synthesis

Synthesis 2022, 54, 3180–3192  
DOI: 10.1055/a-1782-4224

V. Sabadasch  
S. Dachwitz  
Y. Hannappel  
T. Hellweg\*  
N. Sewald\*

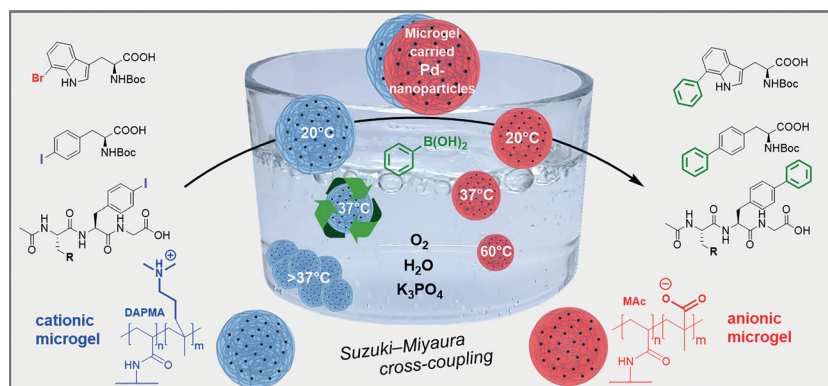
Bielefeld University, Germany

## Acrylamide-Based Pd-Nanoparticle Carriers as Smart Catalysts for the Suzuki–Miyaura Cross-Coupling of Amino Acids

## Feature

OPEN ACCESS

3180



## Synthesis

Synthesis 2022, 54, 3193–3200  
DOI: 10.1055/a-1767-6153

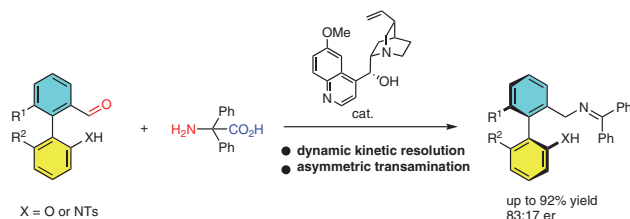
D. Guo  
J. Wang\*

Tsinghua University, P. R. China

## Cinchona Alkaloid Catalyzed Dynamic Kinetic Resolution of Biaryl Aldehydes via Asymmetric Decarboxylative Transamination

## Feature

3193



## Synthesis

## Practical Synthesis of Varilyly Substituted 2,3,4-Benzothiadiazepine 2,2-Dioxides

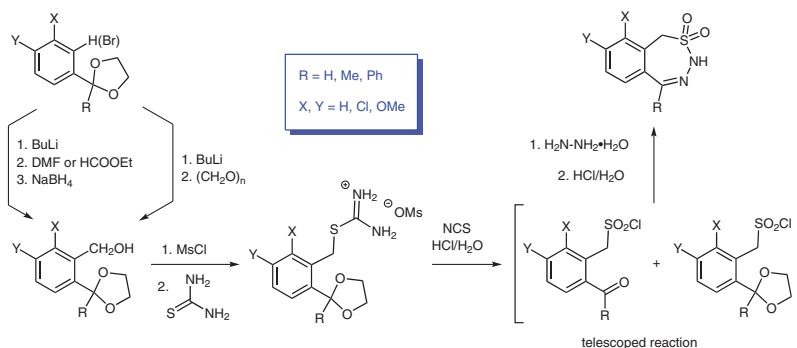
Paper

3201

*Synthesis* 2022, 54, 3201–3208  
DOI: 10.1055/a-1797-5298

B. Nyulasi  
T. Teski  
A. G. Németh  
S. Spróber  
G. Simig  
B. Volk\*

Egis Pharmaceuticals Plc.,  
Hungary



## Synthesis

## Stereocontrolled Synthesis of (±)-Grandisol

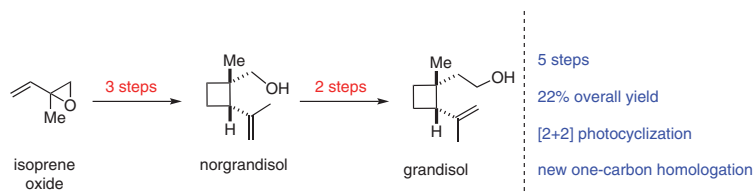
Paper

3209

*Synthesis* 2022, 54, 3209–3214  
DOI: 10.1055/s-0040-1719910

W. R. Bartlett\*  
J. Read de Alaniz\*  
J. L. Carlson  
M. P. Dillon  
E. Edstrom  
D. A. Fischer  
A. A. Goldblum  
G. R. Luedtke  
G. W. Paneitz  
K. Ryter  
M. Schulz  
D. A. Shepard  
C. Switzer

Fort Lewis College, USA



## Synthesis

## Selective N2-Alkylation of 1H-Indazoles and 1H-Azaindazoles

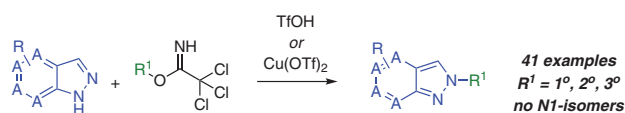
Paper

3215

*Synthesis* 2022, 54, 3215–3226  
DOI: 10.1055/s-0040-1719917

J. Clemens  
E. L. Bell  
A. T. Londregan\*

Pfizer Inc., USA



## Synthesis

Synthesis 2022, 54, 3227–3238  
DOI: 10.1055/a-1799-9339

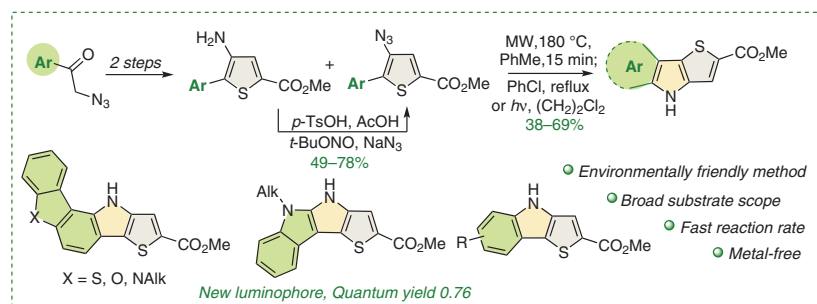
A. L. Samsonenko  
A. S. Kostyuchenko  
T. Y. Zheleznova  
V. Y. Shuvalov  
I. S. Vlasov  
A. S. Fisyuk\*

Omsk State Technical University,  
Russian Federation

### Synthesis of New Fused 4*H*-Thieno[3,2-*b*]pyrrole Derivatives via Decomposition of Methyl 4-Azido-5-arylthiophene-2-carboxylates

Paper

3227



## Synthesis

Synthesis 2022, 54, 3239–3248  
DOI: 10.1055/a-1794-0685

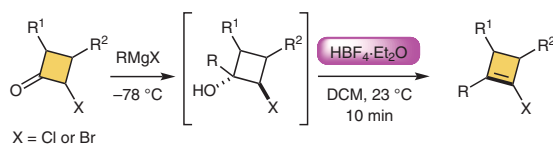
P. Oeser  
A. Petrenko  
T. Edlová  
M. Čubiňák  
J. Koudelka  
T. Tobrman\*

University of Chemistry and  
Technology, Prague, Czech Re-  
public

### Halocyclobutanol Dehydration En Route to Halocyclobutenes

Paper

3239



- one-pot, two-step protocol
- 9 examples, 5–76% yield
- **HBF<sub>4</sub>·Et<sub>2</sub>O** required for regioselective elimination

## Synthesis

Synthesis 2022, 54, 3249–3261  
DOI: 10.1055/a-1785-7191

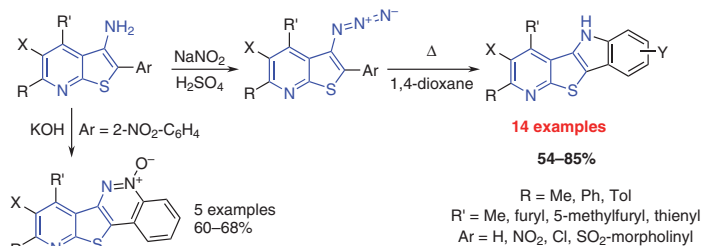
V. K. Vasilin  
E. A. Kanishcheva  
T. A. Stroganova\*  
I. G. Dmitrieva  
V. V. Taranenko  
R. S. Tumskiy  
A. V. Tumskaiia  
N. A. Aksenov  
G. D. Krapivin

Kuban State Technological Uni-  
versity, Russian Federation

### Design, Synthesis, and Screening of Pyridothieno[3,2-*b*]indole and Pyridothieno[3,2-*c*]cinnoline Derivatives as Potential Biologically Active Molecules

Paper

3249



## Synthesis

## Radical Oxyazidation of Alkenes in Pure Water

Paper

3262

*Synthesis* **2022**, *54*, 3262–3270  
DOI: 10.1055/a-1804-8859

J. Cui  
H. Zhou\*  
Y. Li\*  
H. Bao

Fujian Institute of Research on  
the Structure of Matter,  
P. R. of China



## Synthesis

## Rh(III)-Catalyzed Tandem [4+2] Annulation To Construct Functional Dihydroisoquinolinones

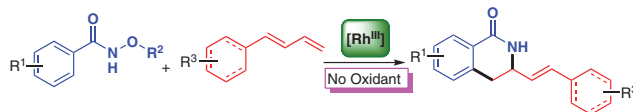
Paper

3271

*Synthesis* **2022**, *54*, 3271–3281  
DOI: 10.1055/a-1787-3958

J.-H. Yang  
L. Dong\*

Sichuan University, P. R. of China



## Synthesis

Rhodol-Based Fluorescent Probes Used for Fast Response toward ClO<sup>-</sup> and Delayed Determination of H<sub>2</sub>O<sub>2</sub> in Living Cells

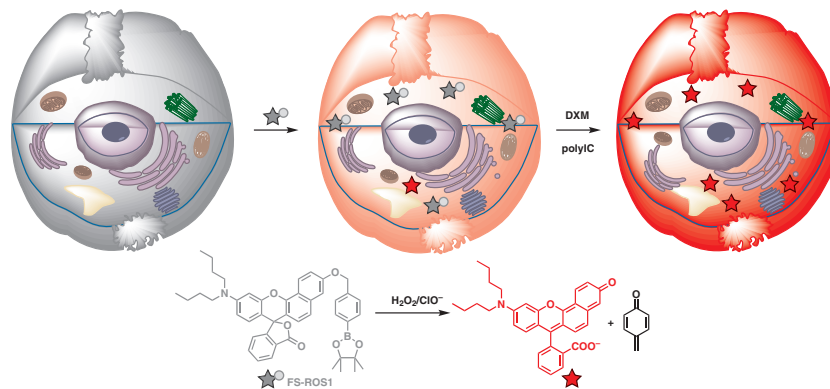
Paper

3282

*Synthesis* **2022**, *54*, 3282–3288  
DOI: 10.1055/a-1786-1584

B. Wang  
L. Zhang  
J. Zheng  
H. Bao  
D. Li\*

Fujian Normal University,  
P. R. China



## Synthesis

*Synthesis* **2022**, *54*, 3289–3297  
DOI: 10.1055/a-1794-1314

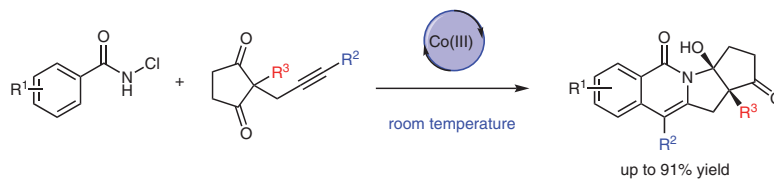
Z. Wu  
Q. Zheng  
G. Lv  
R. Lai  
Y. Hu  
L. Hai  
Y. Wu\*

Sichuan University, P. R. of China

### Cobalt(III)-Catalyzed C–H Activation/Annulation Cascade Reaction of *N*-Chlorobenzamides with 2-Acetylenic Ketones at Room Temperature

Paper

3289



- Co(III)-catalyzed C–H functionalization cascade
- Broad substrate scope
- Construction of complex heterocyclic molecules
- Room temperature

## Synthesis

*Synthesis* **2022**, *54*, 3298–3306  
DOI: 10.1055/a-1792-9930

G. Zhou  
Z. Huang  
X. Xu  
Z. Fang  
P. Huang  
Z. Deng  
B. Li\*  
Y. Zhao\*

Soochow University,  
P. R. of China  
Henan Normal University,  
P. R. of China

### Rhodium(III)-Catalyzed Synthesis of Quinazolin-4(3*H*)-ones with *N*-Methoxyamides as Synthesis Reagents

Paper

3298

