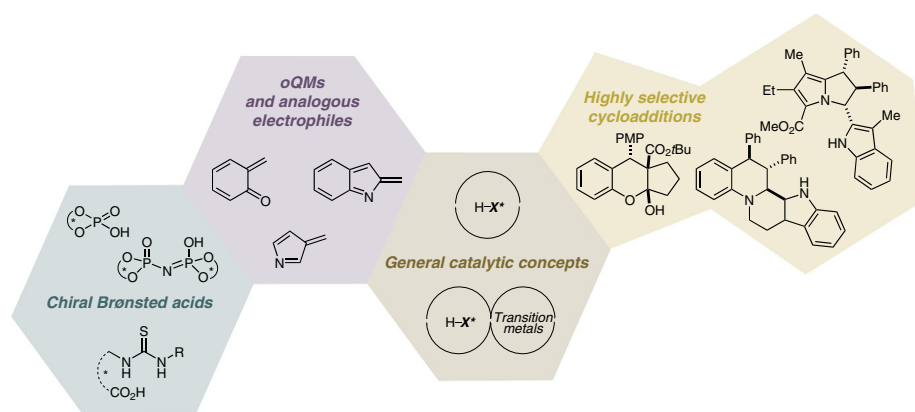


Synthesis

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

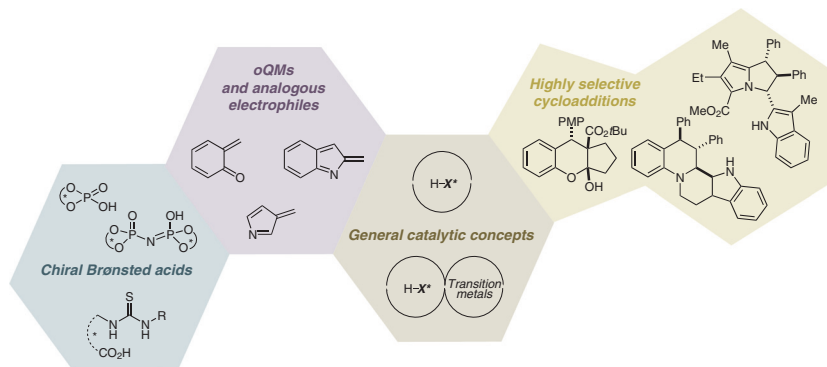
C. Dorsch
C. Schneider*

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

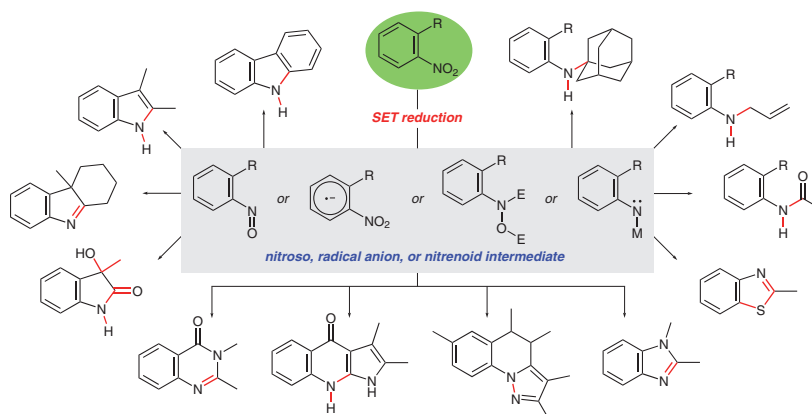
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T. G. Driver*

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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

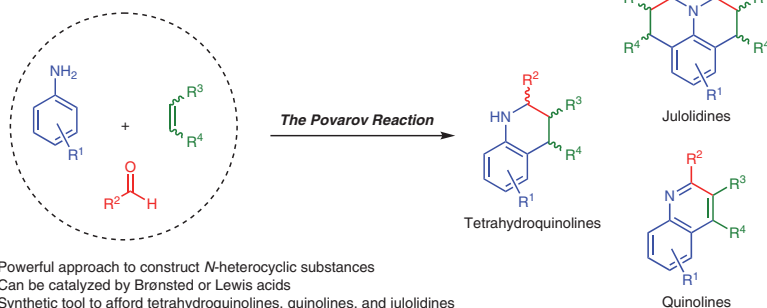
W. Ferreira de Paiva
Y. de Freitas Rego
Á. de Fátima*
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Universidade Federal de Minas
Gerais, Brazil

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

Short Review

3162



- Powerful approach to construct *N*-heterocyclic substances
- Can be catalyzed by Brønsted or Lewis acids
- Synthetic tool to afford tetrahydroquinolines, quinolines, and julolidines

Synthesis

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

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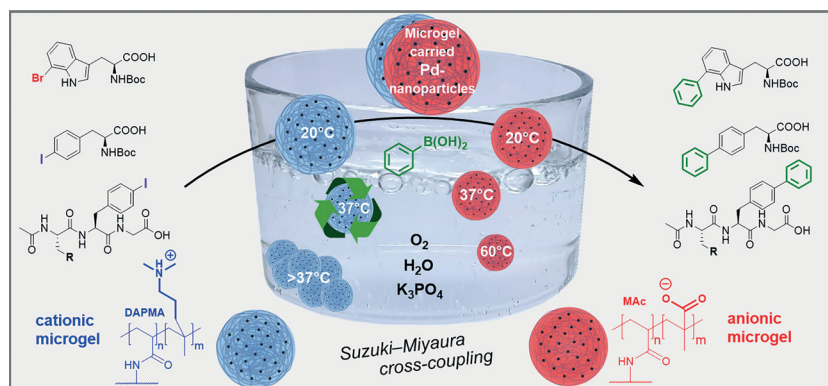
Bielefeld University, Germany

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

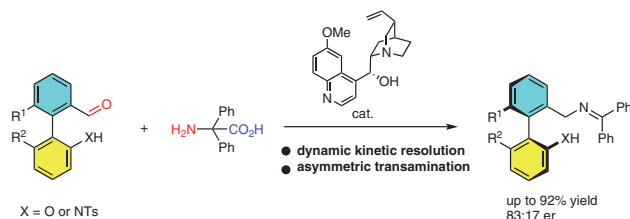
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Cinchona Alkaloid Catalyzed Dynamic Kinetic Resolution of Biaryl Aldehydes via Asymmetric Decarboxylative Transamination

Feature

3193



Synthesis

Practical Synthesis of Variously Substituted 2,3,4-Benzothiadiazepine 2,2-Dioxides

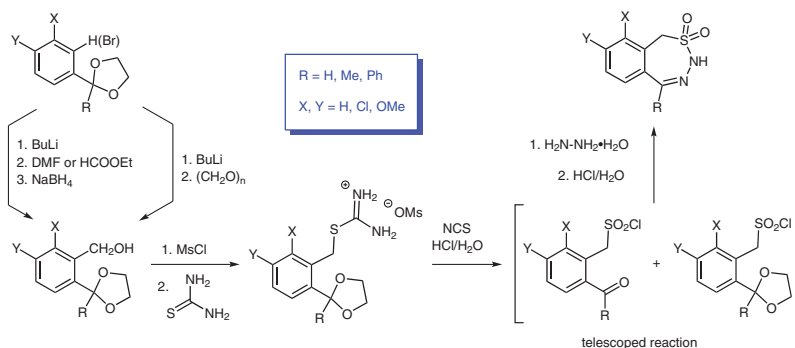
Paper

3201

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

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Synthesis

Stereocontrolled Synthesis of (±)-Grandisol

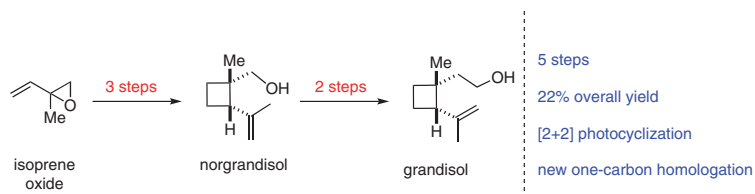
Paper

3209

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

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J. L. Carlson
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K. Ryter
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Synthesis

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

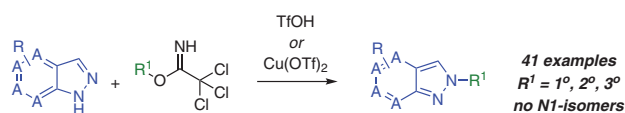
Paper

3215

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

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Synthesis

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

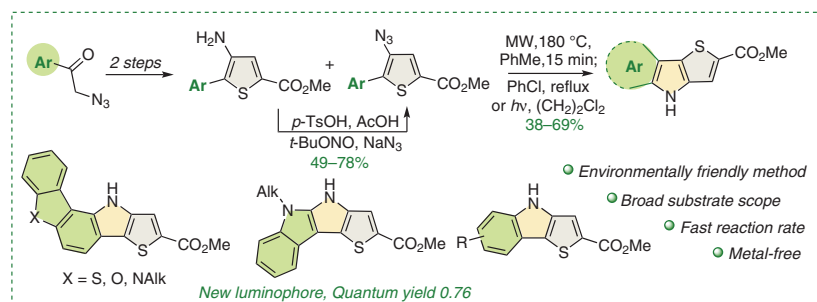
A. L. Samsonenko
A. S. Kostyuchenko
T. Y. Zheleznova
V. Y. Shuvalov
I. S. Vlasov
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Synthesis of New Fused 4*H*-Thieno[3,2-*b*]pyrrole Derivatives via Decomposition of Methyl 4-Azido-5-arylthiophene-2-carboxylates

Paper

3227



Synthesis

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

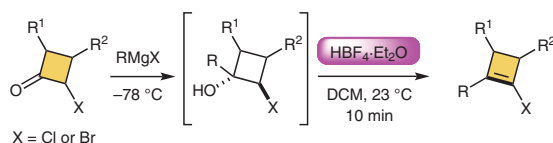
P. Oeser
A. Petrenko
T. Edlová
M. Čubiňák
J. Koudelka
T. Tobrman*

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
- **HBF₄·Et₂O** required for regioselective elimination

Synthesis

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

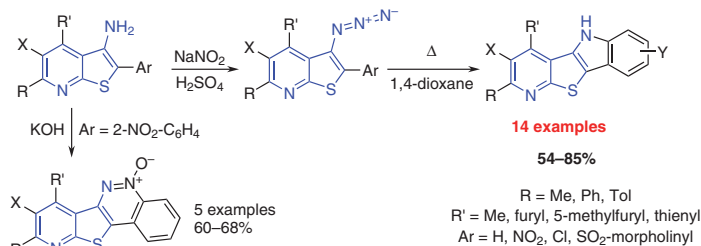
V. K. Vasilin
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T. A. Stroganova*
I. G. Dmitrieva
V. V. Taranenko
R. S. Tumskiy
A. V. Tumskaiia
N. A. Aksenov
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Design, Synthesis, and Screening of Pyridothieno[3,2-*b*]indole and Pyridothieno[3,2-*c*]cinnoline 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

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Synthesis

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

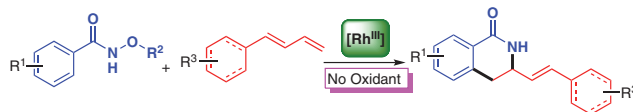
Paper

3271

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

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Synthesis

Rhodol-Based Fluorescent Probes Used for Fast Response toward ClO⁻ and Delayed Determination of H₂O₂ in Living Cells

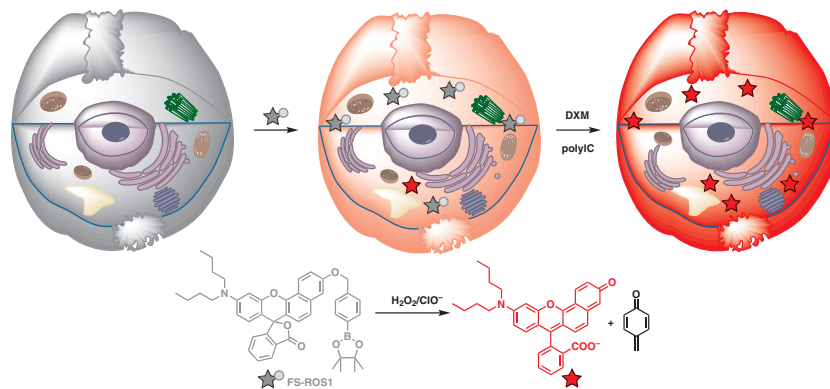
Paper

3282

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

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Synthesis

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

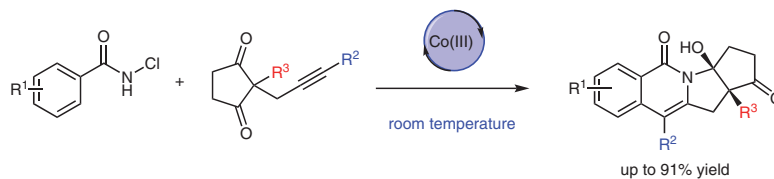
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Q. Zheng
G. Lv
R. Lai
Y. Hu
L. Hai
Y. Wu*

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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

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X. Xu
Z. Fang
P. Huang
Z. Deng
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Rhodium(III)-Catalyzed Synthesis of Quinazolin-4(3*H*)-ones with *N*-Methoxyamides as Synthesis Reagents

Paper

3298

