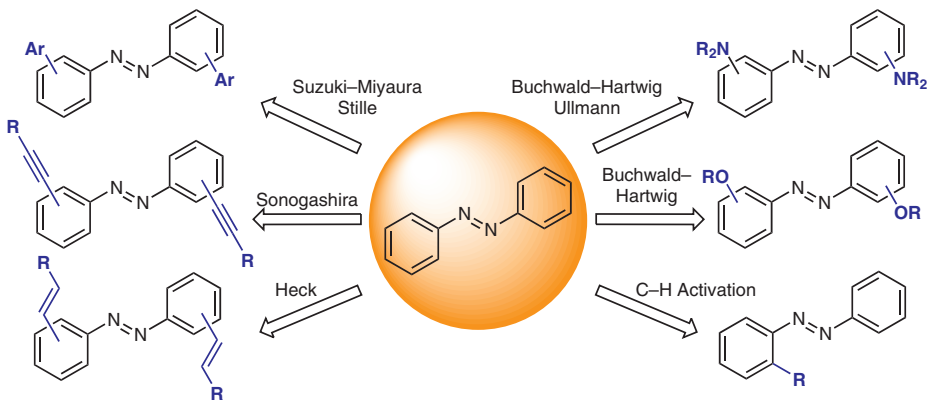
Synthesis

Reviews and Full Papers in Chemical Synthesis

April 1, 2021 • Vol. 53, 1181–1378



Modification of Azobenzenes by Cross-Coupling Reactions

M. Walther, W. Kipke, S. Schultzke, S. Ghosh, A. Staubitz

7

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Synthesis

Reviews and Full Papers in Chemical Synthesis

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Synthesis

Modification of Azobenzenes by Cross-Coupling Reactions

Short Review

Synthesis **2021**, *53*, 1213–1228
DOI: 10.1055/s-0040-1705999

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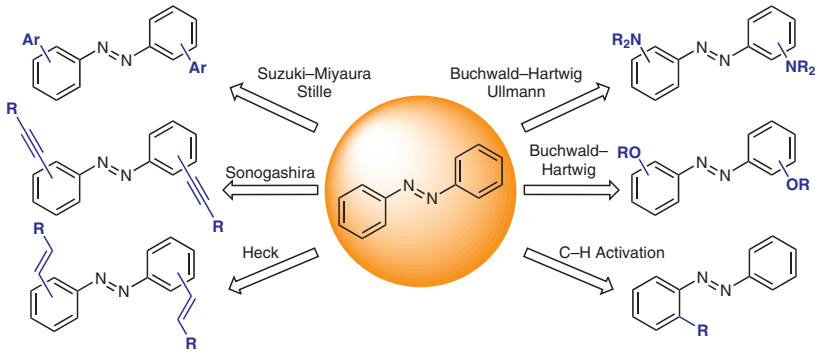

Synthesis

Catalytic Asymmetric Osmium-Free Dihydroxylation of Alkenes

Short Review

Synthesis **2021**, *53*, 1229–1236
DOI: 10.1055/a-1325-4092

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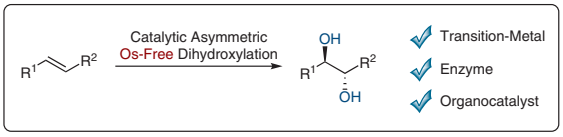
University of Science and Technology of China, P. R. of China



Synthesis

Synthesis of Pyrrolo[1,2-*a*][1,6]- and [1,8]naphthyridines by Alkyne-Carbonyl Metathesis

Feature

Synthesis **2021**, *53*, 1237–1246
DOI: 10.1055/s-0040-1706105

M. B. Ponce
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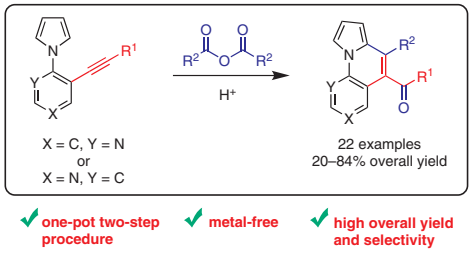

Synthesis

Forskolin Editing via Radical Iodo- and Hydroalkylation

Feature

1247

Synthesis **2021**, *53*, 1247–1261
DOI: 10.1055/s-0040-1706003

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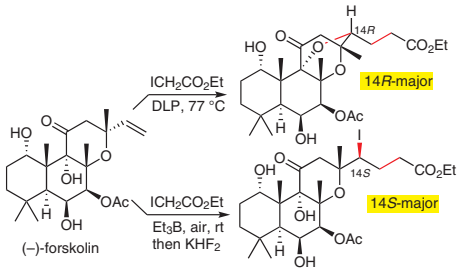

Synthesis

Straightforward Synthesis of Succinimide-Fused Pyrrolizidines by A Three-Component Reaction of α-Diketone, Amino Acid, and Maleimide

Paper

1262

Synthesis **2021**, *53*, 1262–1270
DOI: 10.1055/s-0040-1706608

P. Shen
Y. Guo
J. Wei
H. Zhao*
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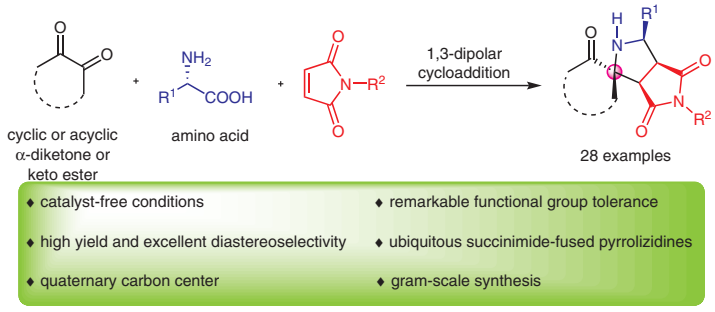

Synthesis

Iodothiophenes and Related Compounds as Coupling Partners in Copper-Mediated *N*-Arylation of Anilines

Paper

1271

Synthesis **2021**, *53*, 1271–1284
DOI: 10.1055/s-0040-1706542

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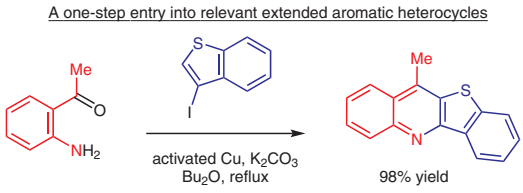

Synthesis

Reductive Knoevenagel Condensation with the Zn–AcOH System

Paper

1285

Synthesis **2021**, *53*, 1285–1291
DOI: 10.1055/s-0040-1705940

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M. Ya. Melnikov
E. M. Budynina*
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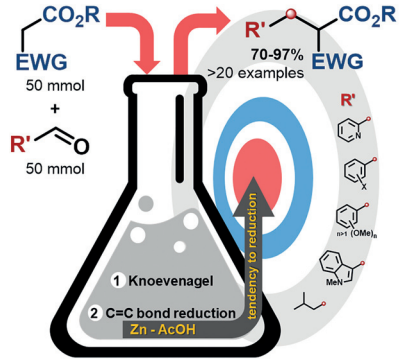

Synthesis

(*E*)-3-Arylidene-4-diazopyrrolidine-2,5-diones: Preparation and Use in Rh^{II}-Catalyzed X–H Insertion Reactions towards Novel, Medicinally Important Michael Acceptors

Paper

1292

Synthesis **2021**, *53*, 1292–1300
DOI: 10.1055/s-0040-1706556

E. Chupakhin
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G. Kantin
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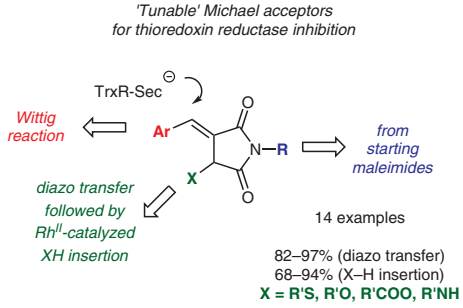
Immanuel Kant Baltic Federal University, Russian Federation



Synthesis

Palladium Nanoparticles Anchored on Magnesium Organosilicate: An Effective and Selective Catalyst for the Heck Reaction

Paper

1301

Synthesis **2021**, *53*, 1301–1306
DOI: 10.1055/s-0040-1705938

B. F. dos Santos
B. A. L. da Silva
A. R. de Oliveira
M. H. Sarragiotto
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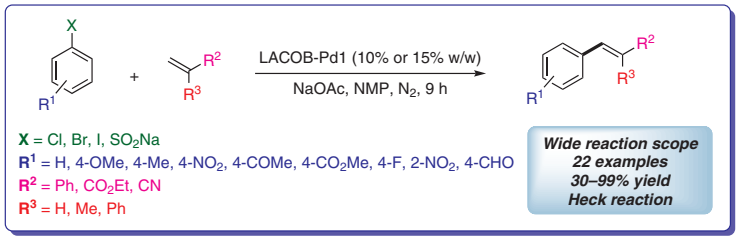

Synthesis

Synthesis **2021**, *53*, 1307–1314
DOI: 10.1055/s-0040-1705964

D. E. Collin
E. H. Jackman
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M. E. Light
D. C. Harrowven
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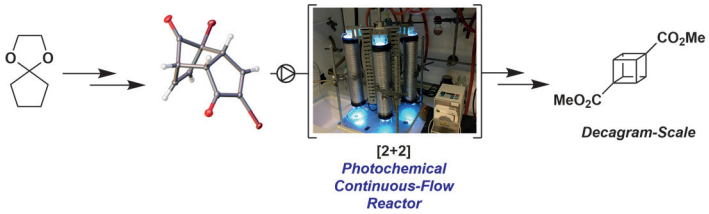
University of Southampton, UK

Decagram Synthesis of Dimethyl 1,4-Cubanedicarboxylate Using Continuous-Flow Photochemistry

Paper



Synthesis

Synthesis **2021**, *53*, 1315–1330
DOI: 10.1055/s-0040-1706484

S. A. Guerrero
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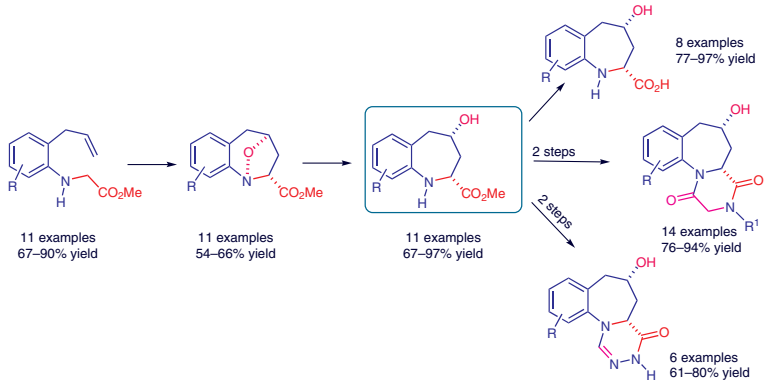
Easy Access to Novel Tetrahydro-1-benzazepine-2-carboxylic Acids and Tetrahydro-1-benzazepines Carrying [*a*]-Fused Heterocyclic Units from 2-(Allylaryl)glycinates

Paper



Synthesis

Synthesis **2021**, *53*, 1331–1340
DOI: 10.1055/s-0040-1706599

Z. Gan*
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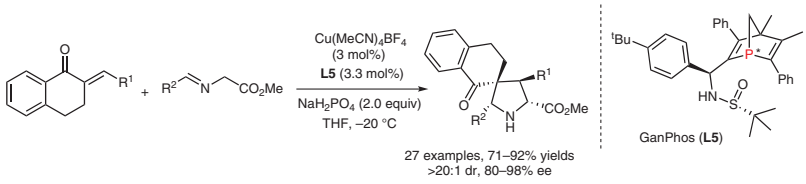
Copper/GanPhos-Catalyzed 1,3-Dipolar Cycloaddition of Azomethine Ylides: An Efficient Access to Chiral Pyrrolidine Spirocycles

Paper



Synthesis

Synthesis **2021**, *53*, 1341–1348
DOI: 10.1055/s-0040-1705963

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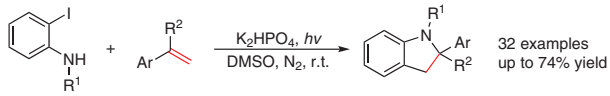
Photoinduced [3+2] Annulation of Alkene with *o*-Iodoanilines: An Expedient Approach to Indolines



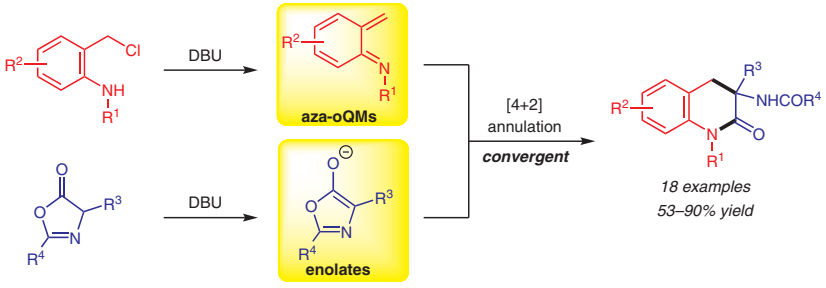
- metal-free
- mild conditions
- high regioselectivity
- general access to mono-/disubstituted indolines and spiroindolines

Synthesis

Synthesis **2021**, *53*, 1349–1355
DOI: 10.1055/s-0040-1706549

H. Ji
C. He
H. Gao
W. Fu
J. Xu*
Zhejiang Sci-Tech University, P. R. of China

DBU-Promoted Formal [4+2] Annulation Reactions of *o*-Chloromethyl Anilines with Azlactones

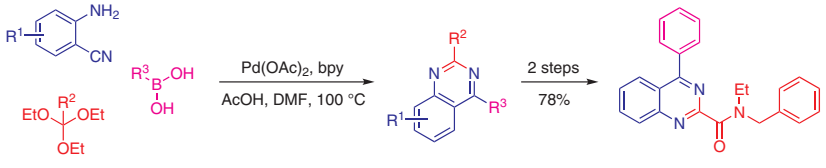


Synthesis

Synthesis **2021**, *53*, 1356–1364
DOI: 10.1055/s-0040-1707329

Z. Wang
W. Chen
C. He
G. Zhang*
Y. Yu*
Zhejiang University, P. R. of China

Palladium(II)-Catalyzed Three-Component Tandem Cyclization Reaction for the One-Pot Assembly of 4-Arylquinazolines



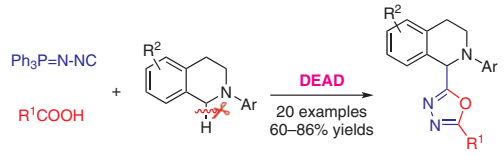
- 27 examples, up to 95% yield
- one-pot cascade reaction
- gram-scale synthesis
- good functional group tolerance

Synthesis

Synthesis **2021**, *53*, 1365–1371
DOI: 10.1055/s-0040-1705967

M. Sun
L. Zhao
Y.-L. Yu
M.-W. Ding*
Central China Normal University, P. R. of China

DEAD-Mediated Oxidative Ugi/Aza-Wittig Reaction for the Synthesis of 5-(1,2,3,4-Tetrahydroisoquinolin-1-yl)-1,3,4-oxadiazoles Starting from (*N*-Isocyanimine)triphenylphosphorane



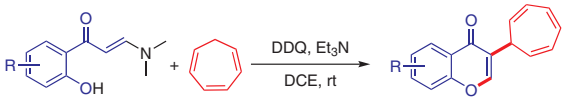
- Odorless isocyanide chemistry
- DEAD as an efficient metal-free oxidant
- Simple operation and mild reaction conditions
- A first example of oxidative Ugi/aza-Wittig reaction
- C(sp^3)–H bond functionalization involving 1,3,4-oxadiazoles generated in situ

Synthesis

Synthesis **2021**, *53*, 1372–1378
DOI: 10.1055/s-0040-1705973

D. Cheng*
Y. Pu
M. Wang
Y. Shen
J. Shen
X. Xu*
J. Yan
Zhejiang University of Technology, P. R. of China

2,3-Dichloro-5,6-dicyano-1,4-benzoquinone (DDQ)-Mediated Tandem Oxidative-Coupling/Annulation of *o*-Hydroxyaryl Enaminones with Cycloheptatriene



- Excellent yields
- Mild conditions
- Easy operation

19 examples
up to 96% yields