Synlett

Accounts and Rapid Communications in Chemical Synthesis

July 7, 2023 • Vol. 34, 1285–1538

Special Issue

Honoring Prof. Masahiro Murakami's Contributions to Science

Editor: Ruben Martin

12

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Synlett

Accounts and
Rapid Communications
in Chemical Synthesis

2023
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Synlett

Cluster Preface: Special Issue Honoring Masahiro Murakami's Contributions to Science

Cluster

1285

Synlett **2023**, *34*, 1285–1288
DOI: 10.1055/s-0042-1752715

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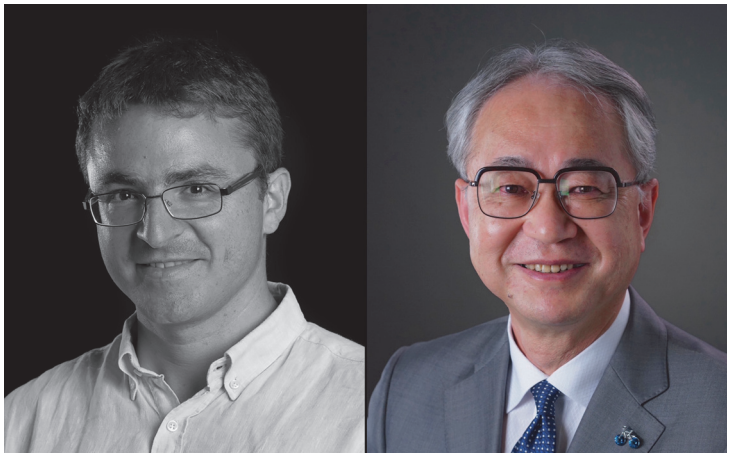

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Recent Advances in Dual Triplet Ketone/Transition-Metal Catalysis

Cluster Account

1289

Synlett **2023**, *34*, 1289–1308
DOI: 10.1055/s-0042-1751444

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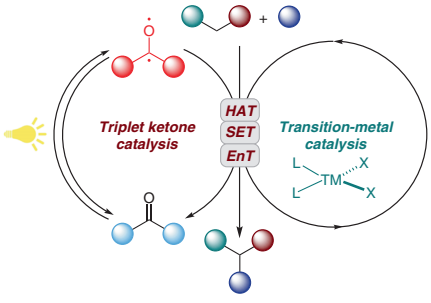
The University of Texas at Dallas, USA



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Catalyst-Free Reactions under Biocompatible Conditions

Cluster Account

1309

Synlett **2023**, *34*, 1309–1316
DOI: 10.1055/a-1994-3327

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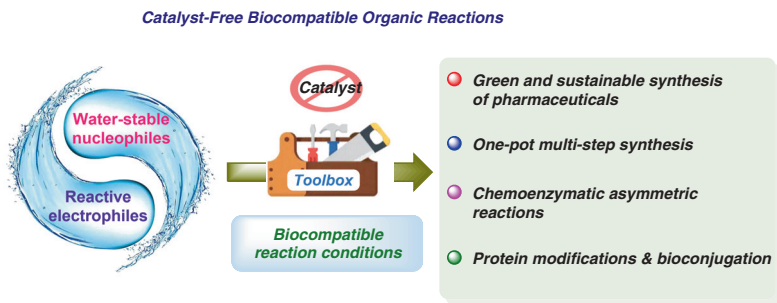
Nanjing Tech University, P. R. of China
Henan University of Technology, P. R. of China
Nanyang Technological University, Singapore



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C–C Bond Activations of Minimally Activated Cyclopropanes

Cluster Account

1317

Synlett **2023**, *34*, 1317–1326
DOI: 10.1055/s-0042-1753177

O. O. Sokolova
A. G. Dalling
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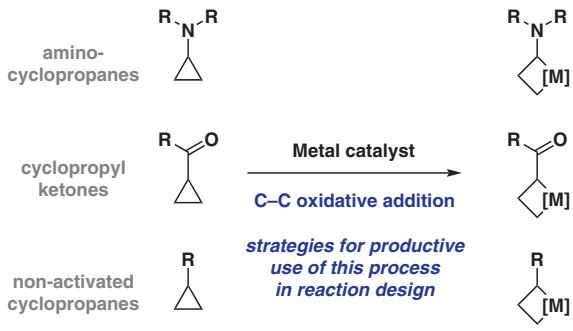

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Recent Advances on the Carboxylations of C(sp^3)–H Bonds Using CO_2 as the Carbon Source

Cluster Account

1327

Synlett **2023**, *34*, 1327–1342
DOI: 10.1055/a-2012-5317

S. Pradhan
S. Das*
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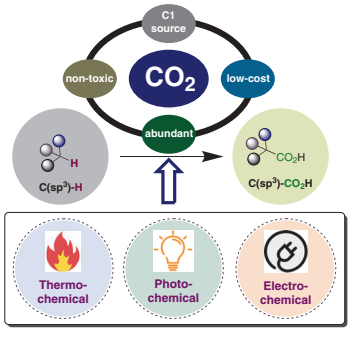

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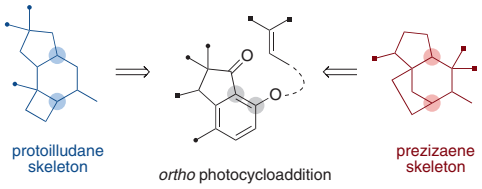
Synlett
Synlett **2023**, *34*, 1343–1355
DOI: 10.1055/s-0042-1751354

A. Gilbert
T. Bach*
Technische Universität München, Germany

The Awakening of a Sleeping Beauty: The *ortho* Photocycloaddition in the Total Synthesis of Protoilludane- and Prezizaene-Type Sesquiterpenes

Cluster Account

1343



Synlett
Synlett **2023**, *34*, 1356–1366
DOI: 10.1055/a-1987-6464

J. Lee
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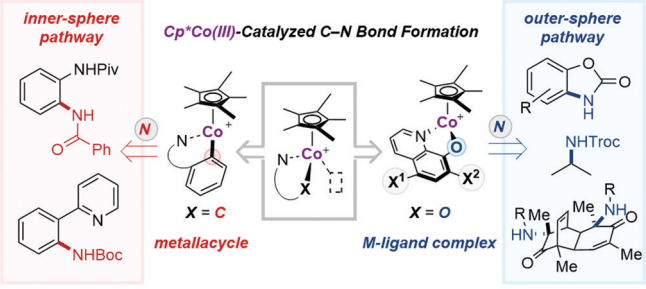
Versatile Utility of Cp*Co(III) Catalysts in C–H Amination under Inner- and Outer-Sphere Pathway

Cluster Account

1356



Synlett
Synlett **2023**, *34*, 1367–1375
DOI: 10.1055/a-1990-5102

R. A. Jagtap
M. Kanai*
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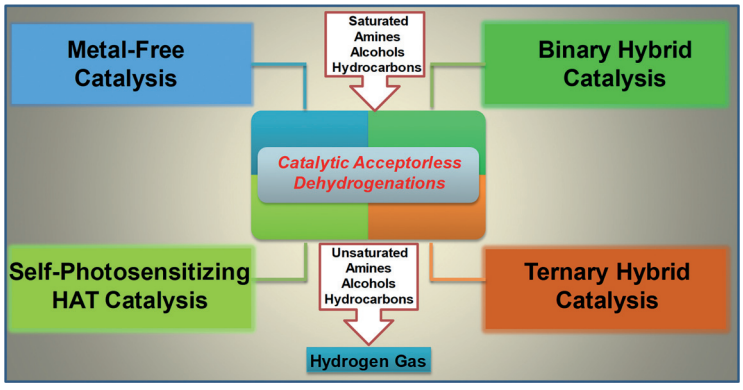
Sustainable and Mild Catalytic Acceptorless Dehydrogenations

Cluster Account

1367



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Synlett **2023**, *34*, 1376–1380
DOI: 10.1055/a-1990-5360

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I. Tohara
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Tohoku University, Japan
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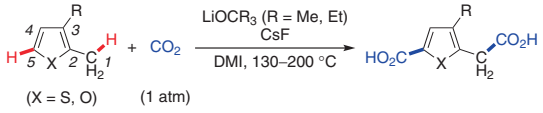
1,5-Double-Carboxylation of 2-Alkylheteroarenes Mediated by a Combined Brønsted Base System

Cluster **1376**



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Synlett **2023**, *34*, 1381–1384
DOI: 10.1055/s-0042-1752655

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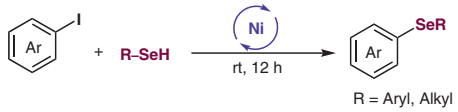
Nickel-Catalyzed Carbon–Selenium Bond Formations under Mild Conditions

Cluster **1381**



- ✔ *Good functional group tolerance*
- ✔ *Scalable*
- ✔ *Mild reaction conditions*
- ✔ *Wide scope*

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Synlett **2023**, *34*, 1385–1390
DOI: 10.1055/a-2039-9942

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Y. Deng
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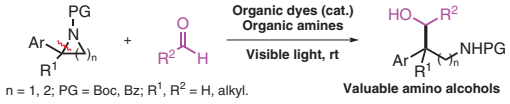
Nankai University, P. R. of China

Visible-Light Photocatalytic Barbier-Type Reaction of Aziridines and Azetidines with Nonactivated Aldehydes

Cluster **1385**



- **Mild conditions**
- **Transition-metal-free**
- **Broad substrate scope**

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Synlett **2023**, *34*, 1391–1394
DOI: 10.1055/a-2059-3003

K. Yamanomoto
T. Matsudaira
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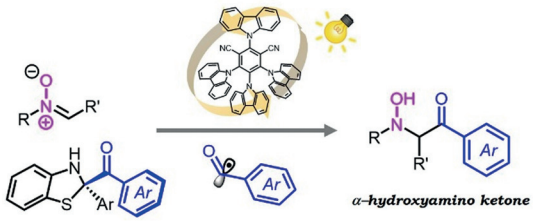
Metal- and Additive-Free Synthesis of α-Hydroxyamino Ketones Enabled by Organophotocatalyst

Cluster

1391



Synlett

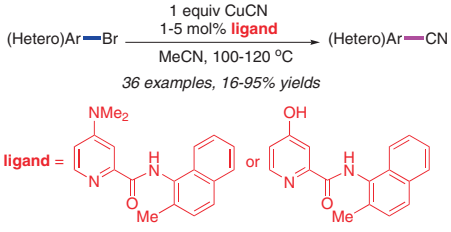
Synlett **2023**, *34*, 1395–1398
DOI: 10.1055/s-0042-1751414

Q. Zhang
D. Ma*
East China Normal University, P. R. of China
Shanghai Institute of Organic Chemistry, P. R. of China

Ligand-Promoted Rosenmund–von Braun Reaction

Cluster

1395



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Synlett **2023**, *34*, 1399–1402
DOI: 10.1055/s-0042-1752986

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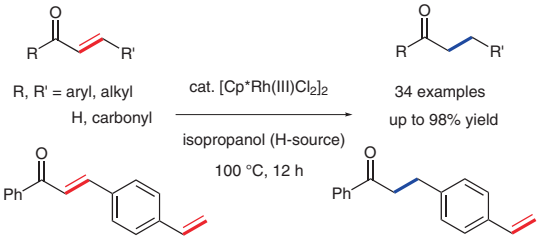
Xiangtan University, P. R. of China

1,4-Reduction of α,β-Unsaturated Ketones through Rhodium(III)-Catalyzed Transfer Hydrogenation

Cluster

1399



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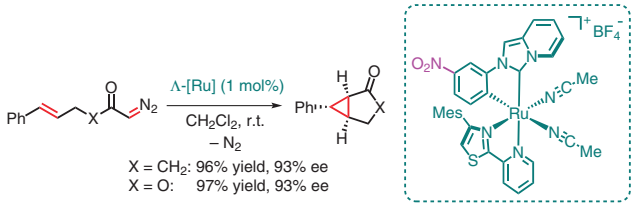
DOI: 10.1055/s-0042-1751372

Chiral-at-Ru Catalyst with Cyclometalated Imidazo[1,5-*a*]pyridinylidene for Enantioselective Intramolecular Cyclopropanations

Cluster

1403

F. Han
Y. Xie
X. Xie
S. I. Ivlev
E. Meggers*
Philipps-Universität Marburg, Germany



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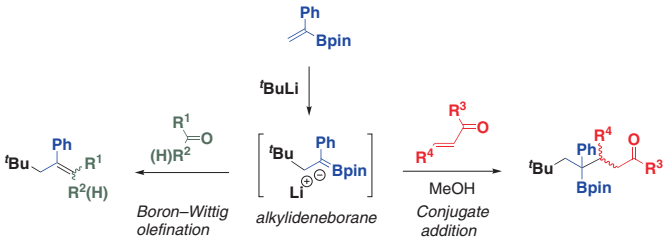
Synlett **2023**, *34*, 1409–1414
DOI: 10.1055/a-1954-3236

Alkenylboronic Ester Activation to Nucleophilic Addition and Electrophilic Trapping with Carbonyl Groups

Cluster

1409

S. González
E. Fernández*
University Rovira i Virgili, Spain



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Synlett **2023**, *34*, 1415–1418
DOI: 10.1055/a-1969-4095

Synthesis and Reactivity of a Stable Prototropic Isomer of 2-Acetyl-3-methylpyrrole

Cluster

1415

A. Lotuzas
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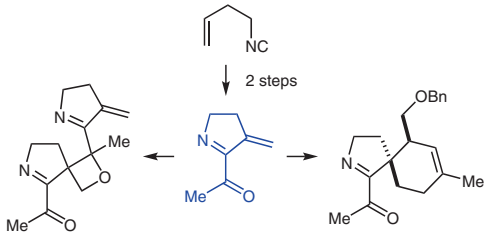
L. Li
P. G. Harran*
University of California, USA



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Synlett
Synlett **2023**, *34*, 1419–1424
DOI: 10.1055/a-2021-9599

R. Isshiki*
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H. Ito*
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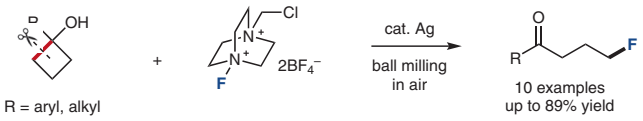
Solid-State Silver-Catalyzed Ring-Opening Fluorination of Cyclobutanols by Using Mechanochemistry

Cluster **1419**



• *free of solvent, glove-box, and inert gas* • *fast and efficient*

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Synlett **2023**, *34*, 1425–1432
DOI: 10.1055/a-2016-6577

N. Morita*
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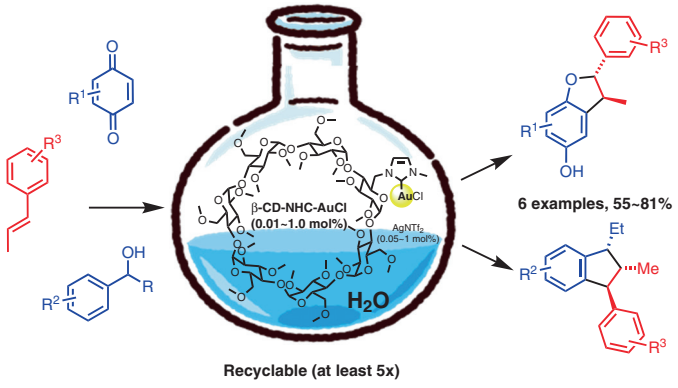
Sustainable Chemical Synthesis of 2,3-Dihydrobenzofurans/1,2,3-Tri-substituted Indanes in Water by Using a Permethylated β-Cyclodextrin-Tagged *N*-Heterocyclic Carbene–Gold Catalyst

Cluster **1425**



Synlett
Synlett **2023**, *34*, 1433–1436
DOI: 10.1055/a-2009-8219

N. Kai
H. Kono
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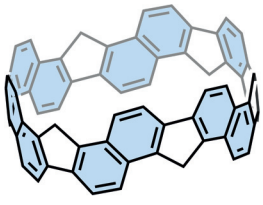
K. Itami*
Nagoya University, Japan

Synthesis and Properties of Methylene-Bridged [6]Cyclo-2,6-naphthylene

Cluster **1433**



Methylene-bridged [6]Cyclo-2,6-naphthylene ([6]MCN)

· *Rapid synthesis*
· *π-Extended nanobelt*
· *Fluorescence (Φ=0.20)*

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Photoinduced Carboarylation of Alkenes by Using Bifunctional Reagents

Cluster

1437

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K. Lee
S. Kim
S. Hong*
Institute for Basic Science (IBS), Republic of Korea
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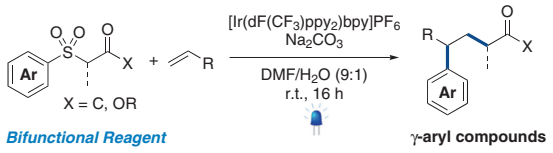

Synlett

Synlett **2023**, *34*, 1442–1446
DOI: 10.1055/a-2021-9514

Enantioselective Synthesis of Axially Chiral 1-Arylisoquinolines by Iridium(I)-Catalyzed Hydroarylation of Alkynes

Cluster

1442

Q. Zhou
S.-Y. Yin
D.-S. Zheng
W.-W. Zhang
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Q. Gu*
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University of Shanghai for Science and Technology, P. R. of China
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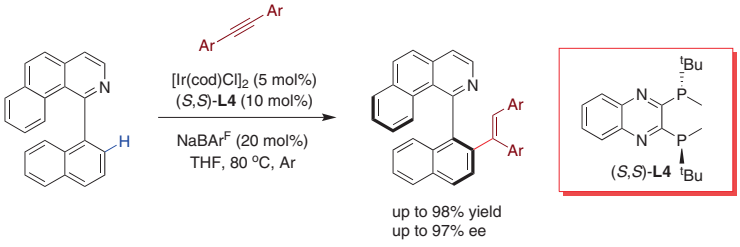

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Synlett **2023**, *34*, 1447–1451
DOI: 10.1055/a-2059-3168

Synthesis of 2-Sulfonylthiazoles via Heteroaryl C–H Sulfonylation of Thiazole *N*-Oxides

Cluster

1447

H.-S. Um
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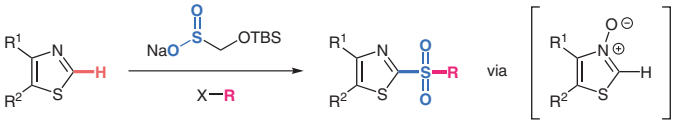
Seoul National University, Republic of Korea



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Synlett **2023**, *34*, 1452–1456
DOI: 10.1055/a-2036-4809

N. P. Corneliussen
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A. S. Donslund
K. T. Neumann*
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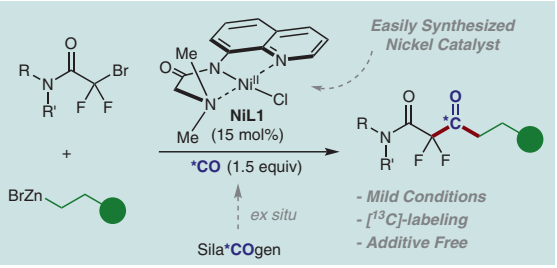
Nickel-Catalyzed Carbonylative Coupling of Alkylzinc Reagents and α-Bromo-α,α-difluoroacetamides

Cluster

1452



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Synlett **2023**, *34*, 1457–1461
DOI: 10.1055/a-2043-4862

S. Han
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Y. Zhao*
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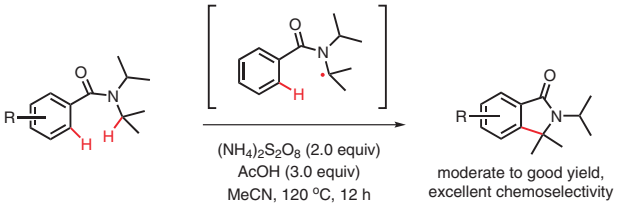
Soochow University, P. R. of China
Nankai University, P. R. of China

Facile Synthesis of Isoindolinones via Radical-Mediated Intramolecular Coupling of Two C–H Bonds

Cluster

1457



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Synlett **2023**, *34*, 1462–1466
DOI: 10.1055/a-2059-3372

C. Papucci
F. Ventura
D. Franchi
A. Dessi
A. Pucci
G. Reginato
A. Mordini*
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L. Zani
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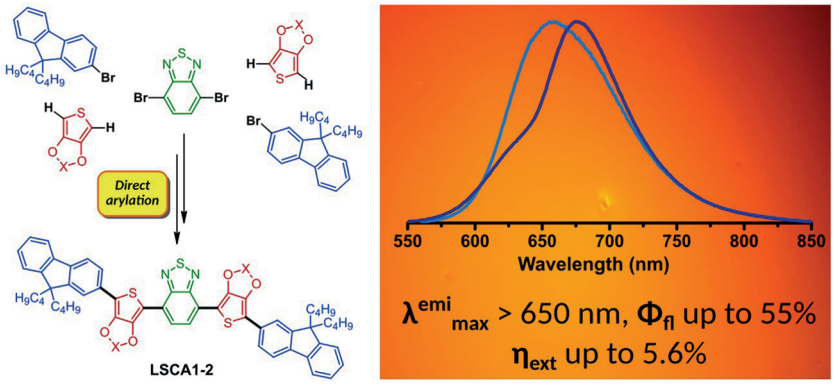
Università degli Studi di Firenze, Italy

A Direct Arylation Approach for the Preparation of Benzothiadiazole-Based Fluorophores for Application in Luminescent Sola-Concentrators

Cluster

1462



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Synlett **2023**, *34*, 1467–1471
DOI: 10.1055/a-2059-3498

Martin Silicates as Versatile Radical Precursors in Photoredox/ Nickel Dual Catalysis

Cluster

1467

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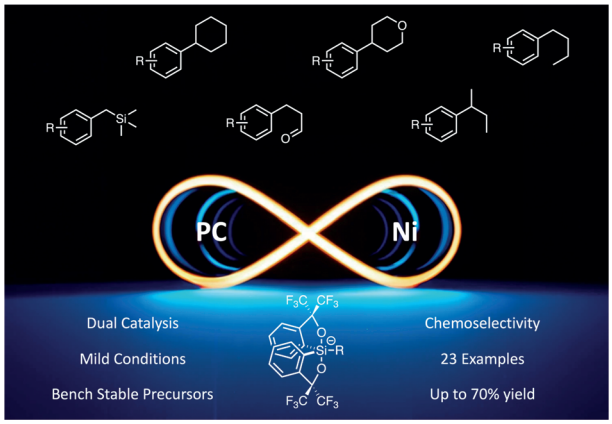
M. Abdellaoui
T. Deis
V. Corcé
G. Lemière*
C. Ollivier*
L. Fensterbank*
Sorbonne Université, France



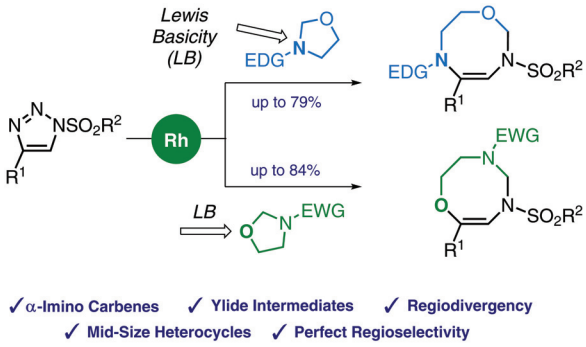
Synlett
Synlett **2023**, *34*, 1472–1476
DOI: 10.1055/a-2072-4537

Regiodivergent Synthesis of Oxadiazocines *via* Dirhodium-Catalyzed Reactivity of Oxazolidines and α-Imino Carbenes

Cluster

1472

O. Viudes
A. Guarnieri-Ibáñez
C. Besnard
J. Lacour*
University of Geneva, Switzerland



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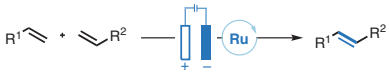
Synlett **2023**, *34*, 1477–1481
DOI: 10.1055/s-0042-1751469

Electrochemically Controlled Ruthenium-Catalyzed Olefin Metathesis

Cluster

1477



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Columbia University, USA

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Catalytic Generation of Radicals from Nitroalkanes

Cluster

1482

Synlett **2023**, *34*, 1482–1486
DOI: 10.1055/a-1942-0683

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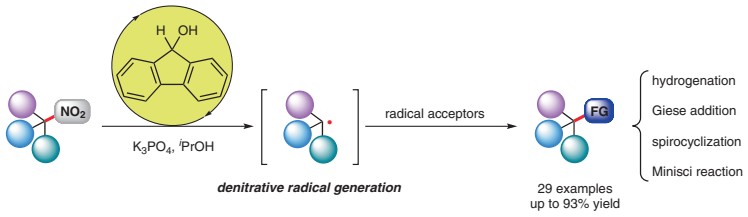

Synlett

Synthesis of *N*-Acyl Pyrroles and Isoindoles from Oxime Ester Precursors via Transition-Metal-Catalyzed Iminocarboxylation

Cluster

1487

Synlett **2023**, *34*, 1487–1491
DOI: 10.1055/s-0042-1751377

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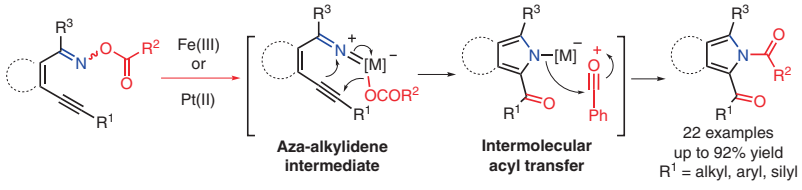

Synlett

Fused λ^5-Phosphinines: Design, Syntheses, and Properties

Cluster

1492

Synlett **2023**, *34*, 1492–1496
DOI: 10.1055/a-1979-6123

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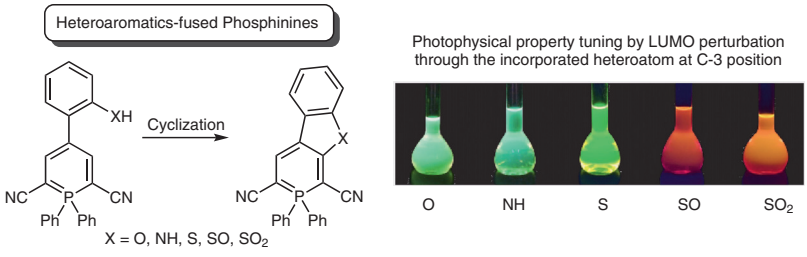

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Synlett
Synlett **2023**, *34*, 1497–1501
DOI: 10.1055/a-1995-5791

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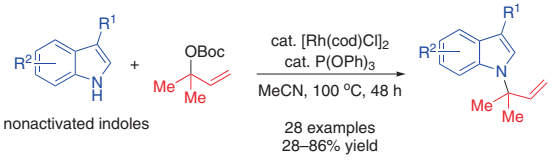
Rhodium-Catalyzed N-Reverse Prenylation of Nonactivated Indoles

Cluster **1497**



Synlett
Synlett **2023**, *34*, 1502–1506
DOI: 10.1055/a-1979-6245

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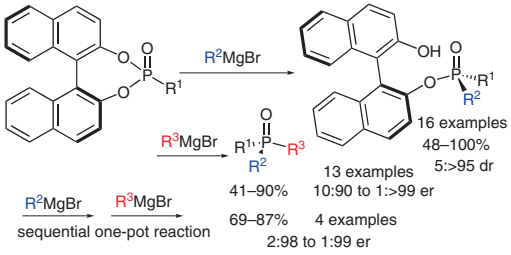
Two-Step Substitution Reaction of Phosphonates Carrying a Binaphthyl Group with Grignard Reagents Leading to the Formation of P-Chirogenic Phosphine Oxides

Cluster **1502**



Synlett
Synlett **2023**, *34*, 1507–1511
DOI: 10.1055/a-1995-5960

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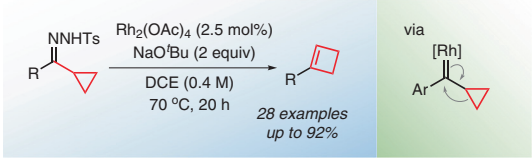
Rh(II)-Catalyzed Ring Expansion of Cyclopropyl *N*-Tosylhydrazones to 1-Substituted Cyclobutenes

Cluster **1507**



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Synlett

Synlett **2023**, *34*, 1512–1518
DOI: 10.1055/a-1992-6650

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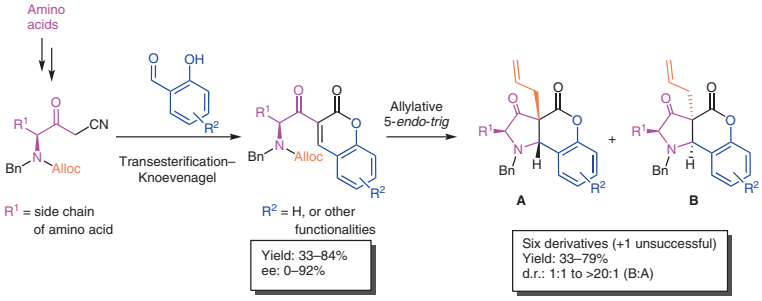
Diastereoselective Synthesis of Substituted Chromenopyrrolidinones from Amino Acid Derived Nitriles

Cluster **1512**



Synlett

Synlett **2023**, *34*, 1519–1523
DOI: 10.1055/s-0042-1751399

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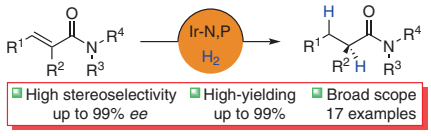
Enantioselective Synthesis of α-Chiral Amides by Catalytic Hydrogenation with Iridium N,P-Complexes

Cluster **1519**



Synlett

Synlett **2023**, *34*, 1524–1528
DOI: 10.1055/a-1982-5433

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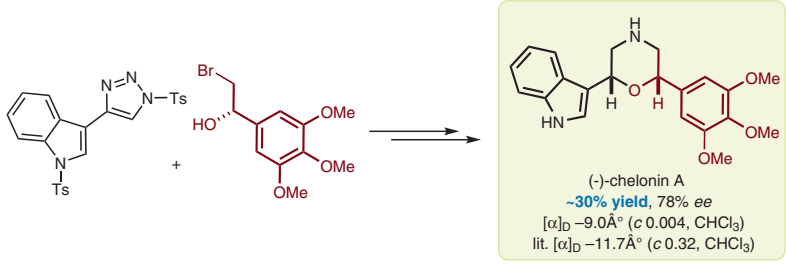
N-Tosyl-1,2,3-triazoles as Scaffolds for Morpholines: The Total Synthesis of (–)-Chelonin A

Cluster **1524**



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Synlett

Synlett **2023**, *34*, 1529–1533
DOI: 10.1055/a-2002-8680

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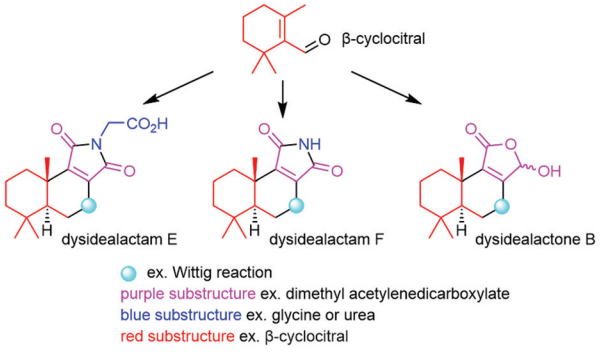
Total Syntheses of Dysidealactams E and F and Dysidealactone B, Drimane-Type Sesquiterpenes Derived from a *Dysidea* sp. of Marine Sponge

Cluster

1529



Synlett

Synlett **2023**, *34*, 1534–1538
DOI: 10.1055/a-2006-4548

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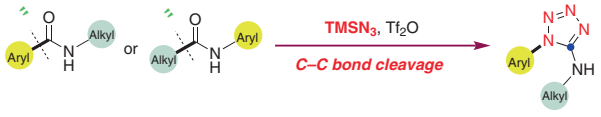
Aminotetrazole Synthesis from Secondary Amides by C–C Bond Nitrogenation

Cluster

1534



• Challenging C–C cleavage • Transition-metal-free • Valuable products

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