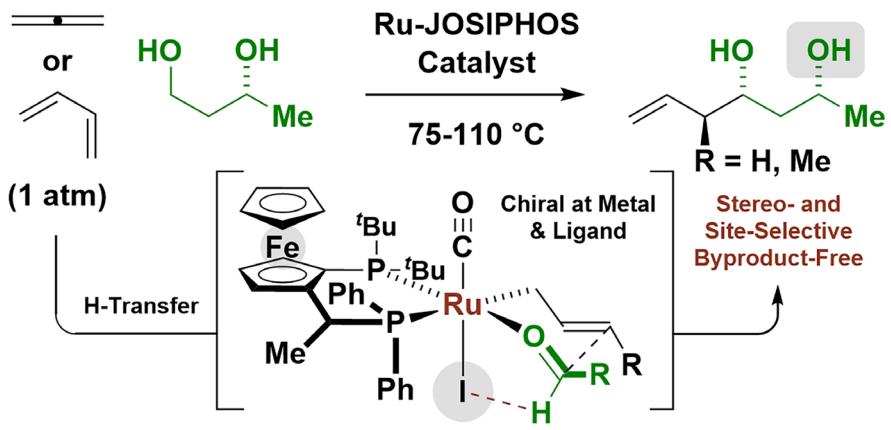
Synthesis

Reviews and Full Papers in Chemical Synthesis

May 17, 2023 • Vol. 55, 1467–1612



Carbonyl Allylation and Crotylation: Historical Perspective, Relevance to Polyketide Synthesis, and Evolution of Enantioselective Ruthenium-Catalyzed Hydrogen Auto-Transfer Processes

E. Ortiz, C. Saludares, J. Wu, Y. Cho, C. G. Santana, M. J. Krische

10

Thieme

Synthesis

Reviews and Full Papers in Chemical Synthesis

2023
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May II

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Synthesis **2023**, *55*, 1467–1486
DOI: 10.1055/a-2043-3973

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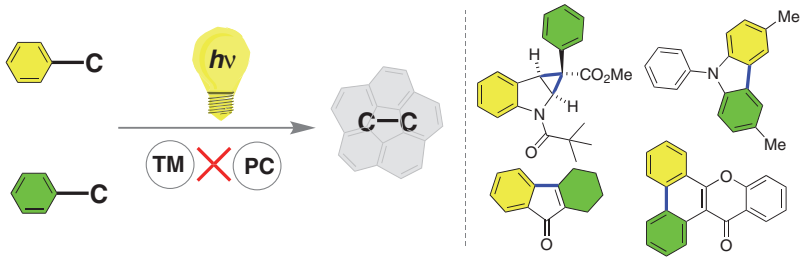

Synthesis **2023**, *55*, 1487–1496
DOI: 10.1055/s-0042-1751420

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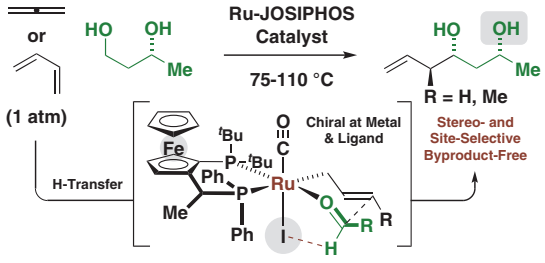

Synthesis

Advances in Enantioconvergent Transition-Metal-Catalyzed Cross-Coupling Reactions of Racemic α-Silyl and α-Boryl Reagents

Short Review

1497

Synthesis **2023**, *55*, 1497–1506
DOI: 10.1055/a-2006-9754

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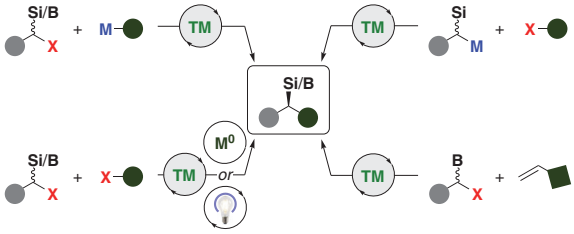

Synthesis

Hetero-Diels–Alder Addition of Ethyl 2-Nitrosoacrylate to (*Z*)-Prop-1-enyl Ethers. Stereoselective Synthesis of a Precursor to Sacubitril

Feature

1507

Synthesis **2023**, *55*, 1507–1516
DOI: 10.1055/a-2029-0015

S. A. Zisopoulou
T. Andreou
T. V. Koftis
J. K. Gallos*
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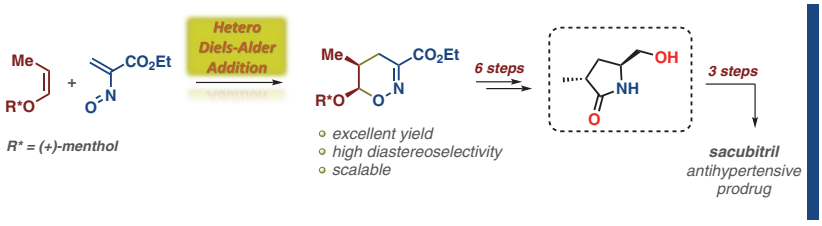
Aristotle University of Thessaloniki, Greece



Synthesis

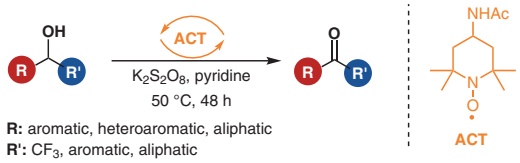
Oxidation of α-Trifluoromethyl and Nonfluorinated Secondary Alcohols to Ketones Using a Nitroxide Catalyst

Paper

1517

Synthesis **2023**, *55*, 1517–1524
DOI: 10.1055/s-0042-1752398

F. Politano
W. P. Brydon
N. E. Leadbeater*
University of Connecticut, USA



- *employed to prepare trifluoromethyl ketones and non-fluorinated ketones*
- *broad substrate scope*
- *27 examples; 44–95% yields*

Synthesis

Synthesis of 2-Alkyl-2-(2-furanyl)-1,3-cyclopentanediones

Paper

1525

Synthesis **2023**, *55*, 1525–1532
DOI: 10.1055/a-2004-1333

K. Ikeuchi*
Y. Ozoe
R. Kato
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K. Tanino*
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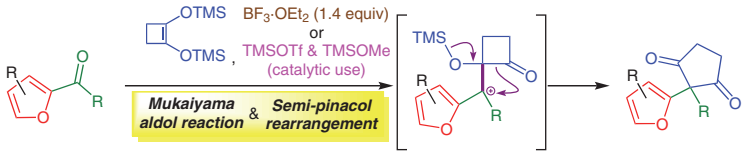

Tandem Deoxygenative Geminal Fluorosulfonimidation of 1,2-Diketones via Formal N–F Insertion Enabled by Dealkylation-Resistant Phosphoramidite

Paper

1533

Synthesis **2023**, *55*, 1533–1542
DOI: 10.1055/a-2005-4296

S. Bak
Y. Son
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H. E. Kim
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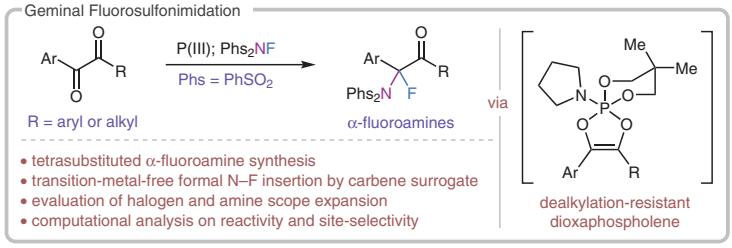

Transition-Metal-Free Dehydrogenative Cyclization via α-Csp^3–H Activation of Ethers and Thioethers

Paper

1543

Synthesis **2023**, *55*, 1543–1552
DOI: 10.1055/a-2017-6065

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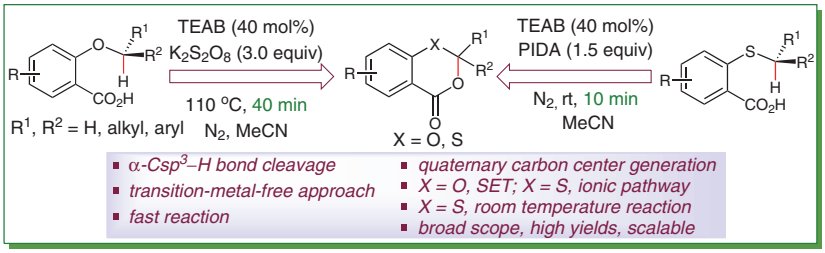

Synthesis

Concise Synthesis of the Hexasaccharide Repeating Unit of the Capsular Polysaccharide of *Klebsiella* K19 Strain

Synthesis **2023**, *55*, 1553–1560
DOI: 10.1055/s-0042-1751419

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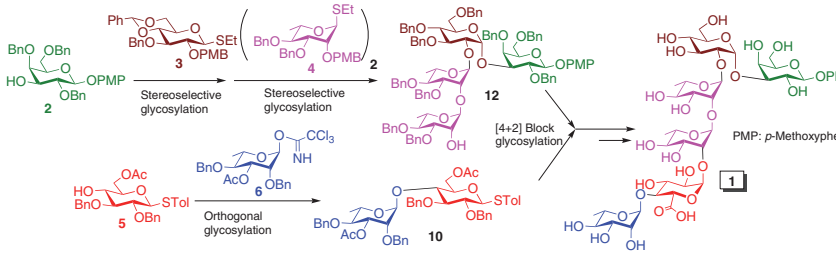

(a) Use of thioglycosides and trichloroacetimidate derivative as glycosyl donors.
(b) A combination of NIS and $HClO_4$-SiO_2 glycosylation promoter.
(c) Construction of hexasaccharide by [4+2] block glycosylation and minimum functional group manipulatic

Synthesis

Synthesis of Spiro[benzofuran-2,3′-pyrazol]-3-imines from Aurone-Derived Azadienes and Hydrazonoyl Chlorides via Regio- and Diastereospecific [2+3] Cycloaddition

Synthesis **2023**, *55*, 1561–1569
DOI: 10.1055/a-1994-8251

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X. Liu
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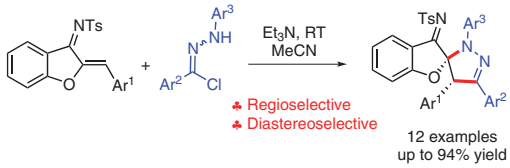

Synthesis

Base-Mediated Direct Carboxylation of Heteroarenes with CO_2

Synthesis **2023**, *55*, 1570–1576
DOI: 10.1055/a-1988-5943

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X. H. Peng*
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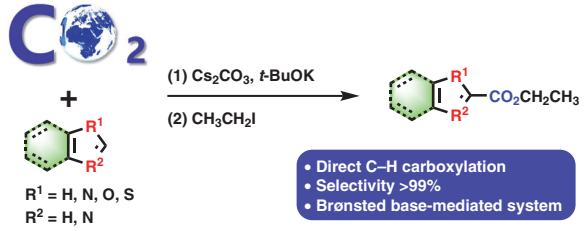

Synthesis

Synthesis **2023**, *55*, 1577–1585
DOI: 10.1055/a-1992-6926

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F.-Y. Ling
X.-J. Fang
Y.-M. Cui
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Z. Xu
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H. Yang
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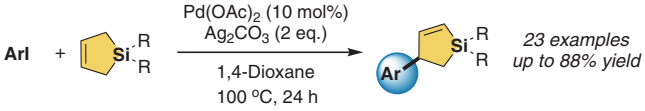
Hangzhou Normal University, P. R. of China

Synthesis of 2,3-Dihydrosiloles via Palladium-Catalyzed Heck-type Arylation of Silacyclopentenes with Aryl Iodides

Paper



Synthesis

Synthesis **2023**, *55*, 1586–1592
DOI: 10.1055/s-0042-1751435

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K. Su
M. Ji
H. Xue
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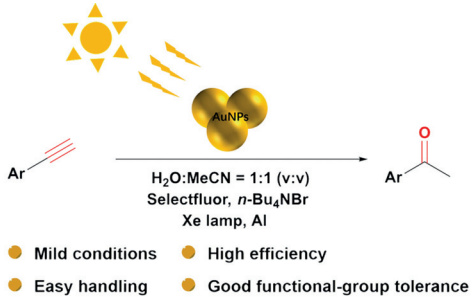
Hydration of Arylacetylenes Promoted by the Photothermal Effect of Gold Nanoparticles

Paper



Synthesis

Synthesis **2023**, *55*, 1593–1601
DOI: 10.1055/a-2011-7334

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Y. Li
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Z. Sun
Y. Yuan*
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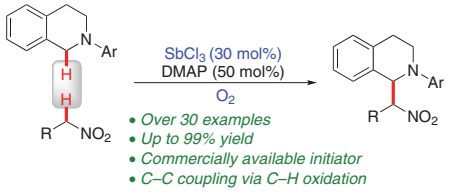
$SbCl_3$-Initiated Csp^3–Csp^3 Coupling between *N*-Aryltetrahydroisoquinolines and Nitroalkanes via the Aerobic Oxidation of sp^3 C–H Bond

Paper



Synthesis

Synthesis **2023**, *55*, 1602–1612
DOI: 10.1055/a-2009-8114

Silylium Ion Initiated Intramolecular Friedel–Crafts-Type Cyclization of 1,1-Difluoroalkenes with Subsequent Hydrodefluorination of C(sp^3)–F Bonds

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H. F. T. Klare
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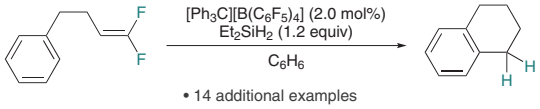
Technische Universität Berlin, Germany



- 14 additional examples
- no need of sacrificial base
- silylation of the C=C bond rather than C(sp^2)–F bond heterolysis