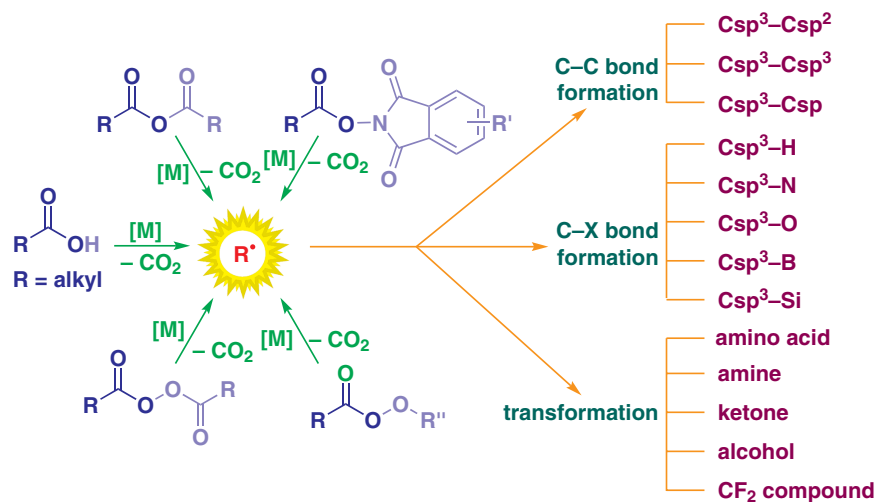


Synthesis

Reviews and Full Papers in Chemical Synthesis

January 5, 2021 • Vol. 53, 1–192



Recent Progress in Radical Decarboxylative Functionalizations Enabled by Transition-Metal (Ni, Cu, Fe, Co or Cr) Catalysis

H. Chen, Y. A. Liu, X. Liao

1

Synthesis

Synthesis 2021, 53, 1–29
DOI: 10.1055/s-0040-1707273

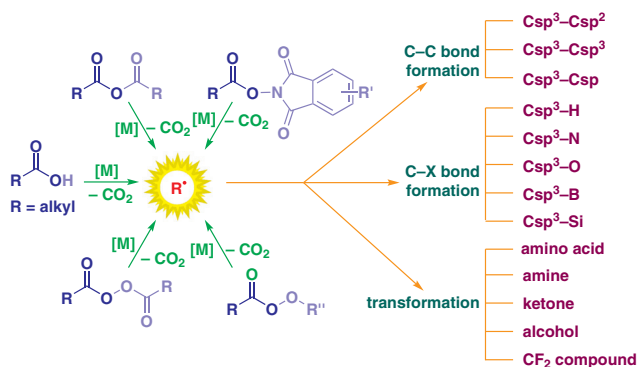
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Recent Progress in Radical Decarboxylative Functionalizations Enabled by Transition-Metal (Ni, Cu, Fe, Co or Cr) Catalysis

Review

1



Synthesis

Synthesis 2021, 53, 30–50
DOI: 10.1055/s-0040-1705918

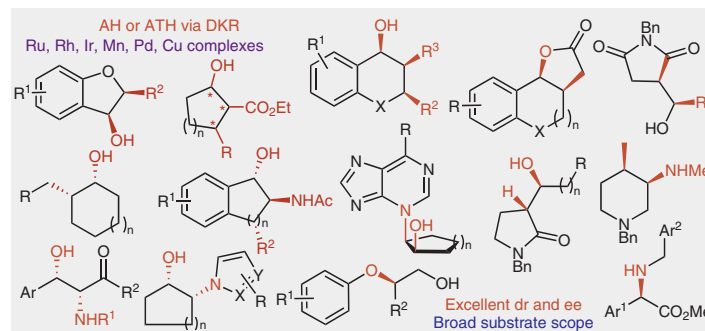
R. Molina Betancourt
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Recent Progress and Applications of Transition-Metal-Catalyzed Asymmetric Hydrogenation and Transfer Hydrogenation of Ketones and Imines through Dynamic Kinetic Resolution

Review

30



Synthesis

Recent Advances in Copper-Catalyzed Radical C–H Bond Activation Using N–F Reagents

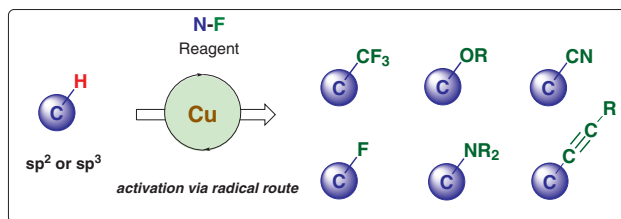
Short Review

51

Synthesis 2021, 53, 51–64
DOI: 10.1055/s-0040-1707234

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Synthesis

Synthetic Approaches to Non-Tropane, Bridged, Azapolycyclic Ring Systems Containing Seven-Membered Carbocycles

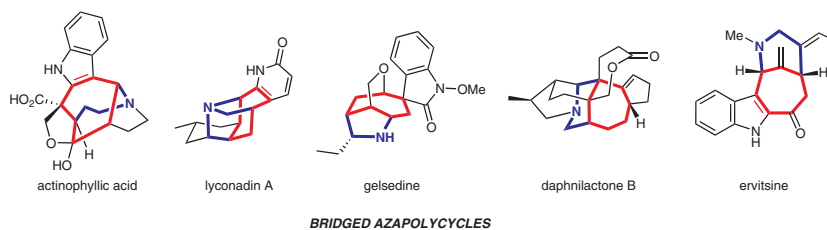
Short Review

65

Synthesis 2021, 53, 65–78
DOI: 10.1055/s-0040-1707385

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Synthesis

The Power of Iron Catalysis in Diazo Chemistry

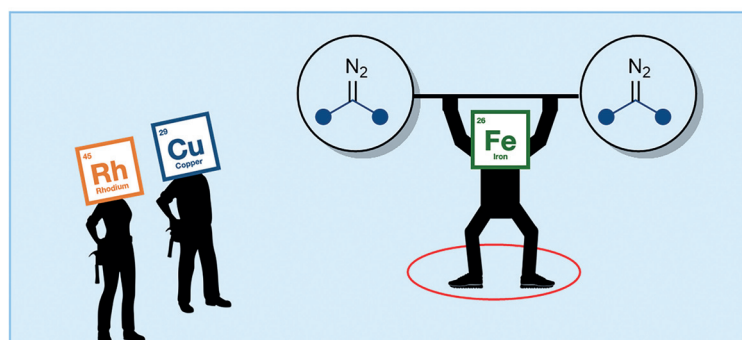
Short Review

79

Synthesis 2021, 53, 79–94
DOI: 10.1055/s-0040-1707272

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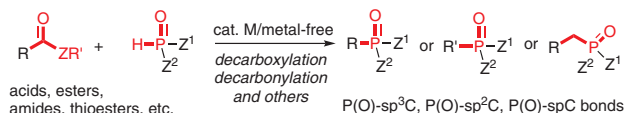


Synthesis 2021, 53, 95–106
DOI: 10.1055/s-0040-1707286

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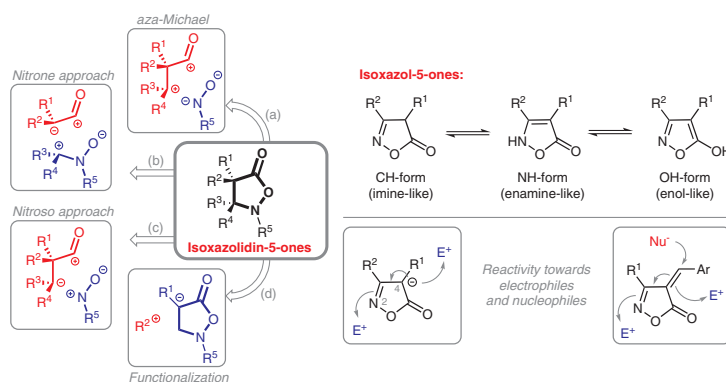
Phosphorylation of carboxylic acids and their derivatives forming P(O)-C bonds



Synthesis 2021, 53, 107–122
DOI: 10.1055/s-0040-1706483

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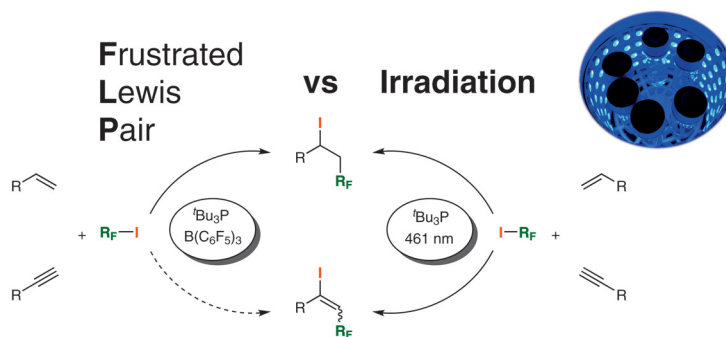
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Synthesis 2021, 53, 123–134
DOI: 10.1055/s-0040-1707232

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Synthesis

Synthesis 2021, 53, 135–145
DOI: 10.1055/s-0040-1707245

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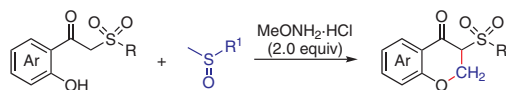
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MeONH₂·HCl-Mediated α -Methylenation/Conjugate Addition of α -Sulfonyl *o*-Hydroxyacetophenones with Methyl Sulfoxides: Route to 3-Sulfonylchroman-4-ones

Paper

135



✓ DMSO as dual role

✓ >30 examples

✓ up to 93% yield

Synthesis

Synthesis 2021, 53, 146–160
DOI: 10.1055/s-0040-1706424

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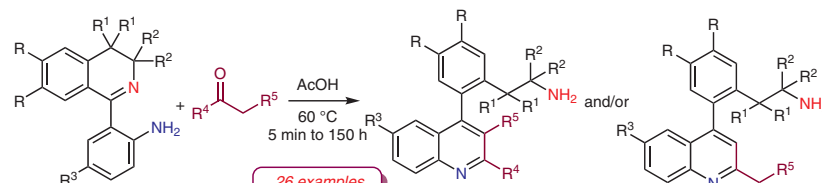
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Synthesis of Aminoalkyl-Functionalized 4-Arylquinolines from 2-(3,4-Dihydroisoquinolin-1-yl)anilines via the Friedländer Reaction

Paper

146



26 examples

30–99% yield

only for unsymmetrical
acyclic aliphatic ketones
(R⁵ = Me, *i*-Pr, Allyl, Bn)

R = H, OMe; R¹ = H, Me; R² = H, Me; R³ = H, OMe, Me, Br, NO₂; R⁴ = Alk, Ar; R⁵ = H, Alk, Allyl, Bn, Ac, COOEt

Synthesis

Synthesis 2021, 53, 161–174
DOI: 10.1055/s-0040-1707274

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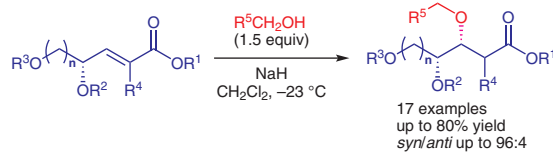
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Stereoselective 1,4-Addition of Primary Alcohols to γ -Alkoxy- α,β -unsaturated Esters

Paper

161



17 examples
up to 80% yield
syn/anti up to 96:4

Synthesis

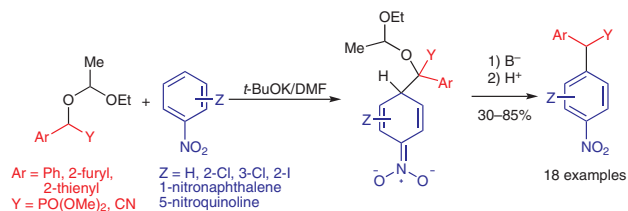
Synthesis 2021, 53, 175–181
DOI: 10.1055/s-0040-1707230

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Simple Synthesis of Dimethyl Nitrobenzhydrylphosphonates and Heteroaryl Nitroarylacetonitriles via Vicarious Nucleophilic Substitution (VNS) Reaction



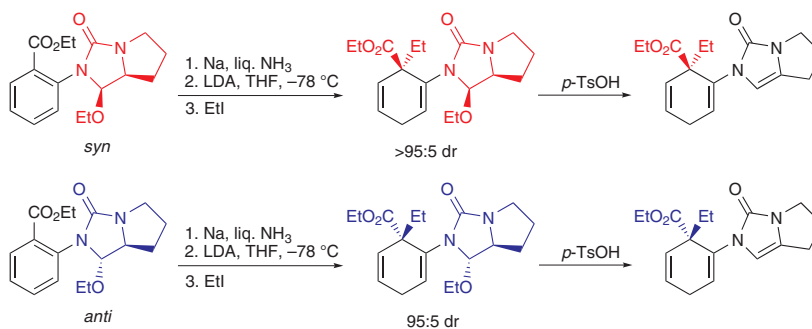
Synthesis

Synthesis 2021, 53, 182–192
DOI: 10.1055/s-0040-1707351

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Diastereoselective Synthesis of Alkylated 1,4-Cyclohexadiene Esters Using Epimeric Pyrroloimidazolones



Synthesis

Instructions for Authors