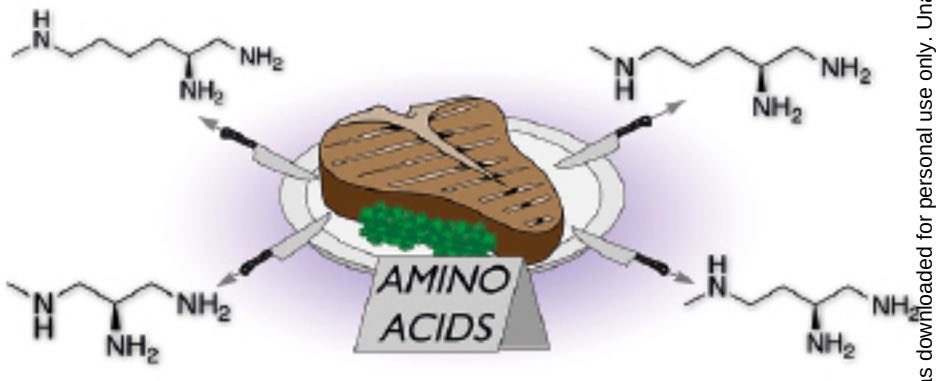
Synthesis
Reviews and Full Papers in Chemical Synthesis
November 3, 2020 • Vol. 52, 3095–3294

Special Topic

Recent Advances in Amide Bond Formation

Editor: Franziska Schoenebeck



Syntheses of Enantiopure 1,2-Ethylenediamines with Tethered Secondary Amines of the Formula $H_2NCH_2CH[(CH_2)_nNHMe]NH_2$ (n = 1–4) from α-Amino Acids: New Agents for Asymmetric Catalysis

C. Q. Kabes, J. H. Gunn, M. A. Selbst, R. F. Lucas, J. A. Gladysz

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Thieme

Synthesis

Reviews and Full Papers in Chemical Synthesis

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Synthesis

Synthesis **2020**, *52*, 3095–3110
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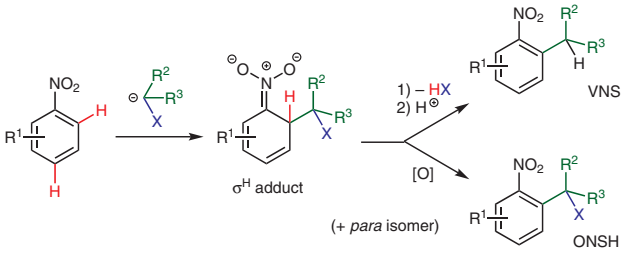
Introduction of Carbon Substituents into Nitroarenes via Nucleophilic Substitution of Hydrogen: New Developments

Review



Synthesis

Synthesis **2020**, *52*, 3111–3128
DOI: 10.1055/s-0040-1707225

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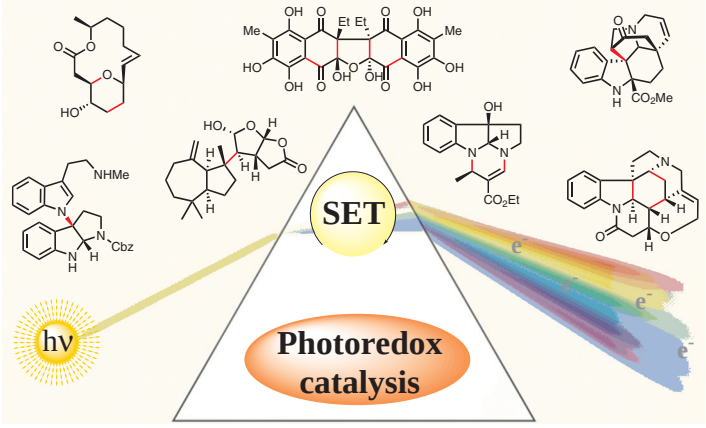
Visible-Light-Mediated Photoredox Reactions in the Total Synthesis of Natural Products

Short Review



Synthesis

Silylboranes as Powerful Tools in Organic Synthesis: Stereo- and Regioselective Reactions with 1,n-Enynes

Short Review

3129

Synthesis **2020**, *52*, 3129–3139
DOI: 10.1055/s-0040-1707247

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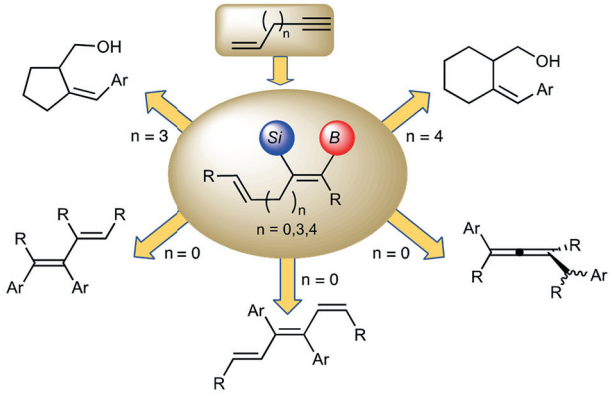

Synthesis

Asymmetric Synthesis of 3,3′-Piperidinoyl Spirooxindoles and Discovery of Stereospecific Cycloadducts as Novel Hedgehog Pathway Modulators

Feature

3140

Synthesis **2020**, *52*, 3140–3152
DOI: 10.1055/s-0040-1707222

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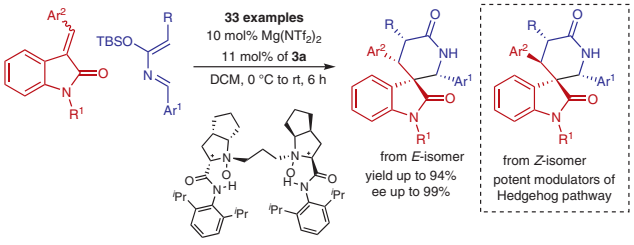

Synthesis

Remote Deprotometalation-Iodolysis of *N*,*N*-Diisopropyl-2-trimethylsilylferrocenecarboxamide: A New Route Toward 1,1′-Disubstituted Ferrocenes

PSP

3153

Synthesis **2020**, *52*, 3153–3161
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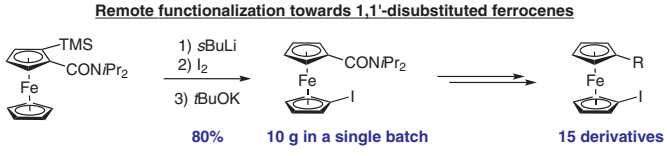

Synthesis

Synthesis **2020**, *52*, 3162–3188
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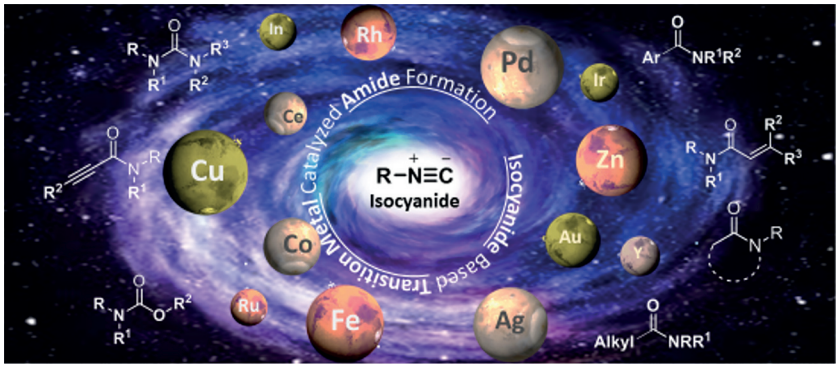
Transition Metal and Inner Transition Metal Catalyzed Amide Derivatives Formation through Isocyanide Chemistry

Special Topic



Synthesis

Synthesis **2020**, *52*, 3189–3210
DOI: 10.1055/s-0040-1706296

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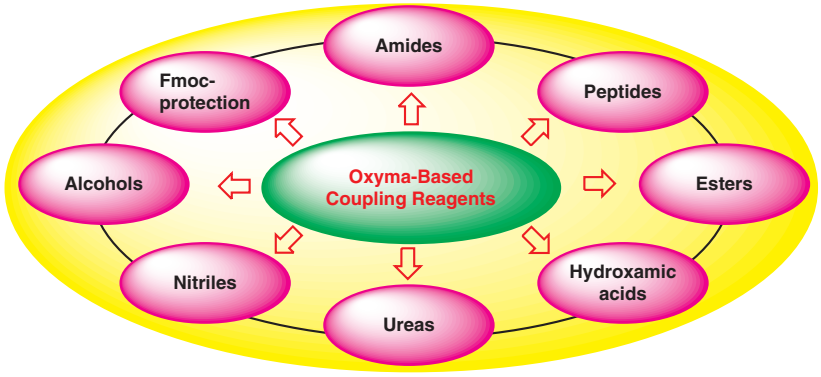
OxymaPure Coupling Reagents: Beyond Solid-Phase Peptide Synthesis

Special Topic



Synthesis

Synthesis **2020**, *52*, 3211–3218
DOI: 10.1055/s-0040-1707124

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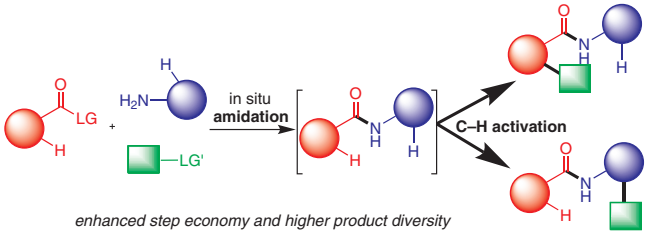
Step-Economical C–H Activation Reactions Directed by In Situ Amidation

Special Topic



Synthesis

Synthetic Approaches to Acyl Hydrazides and Their Use as Synthons in Organic Synthesis

Special Topic

Synthesis **2020**, *52*, 3219–3230
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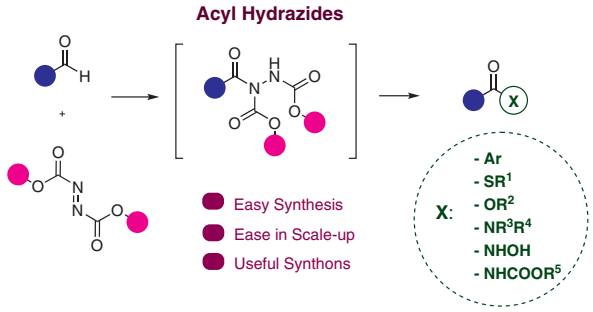

Synthesis

Amide Synthesis by Transamidation of Primary Carboxamides

Special Topic

Synthesis **2020**, *52*, 3231–3242
DOI: 10.1055/s-0040-1707133

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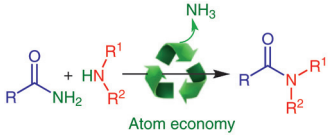

Synthesis

Highly Selective Synthesis of α-Hydroxy, α-Oxy, and α-Oxo Amides by a Post-Passerini Condensation Transformation

Special Topic

Synthesis **2020**, *52*, 3243–3252
DOI: 10.1055/s-0040-1707132

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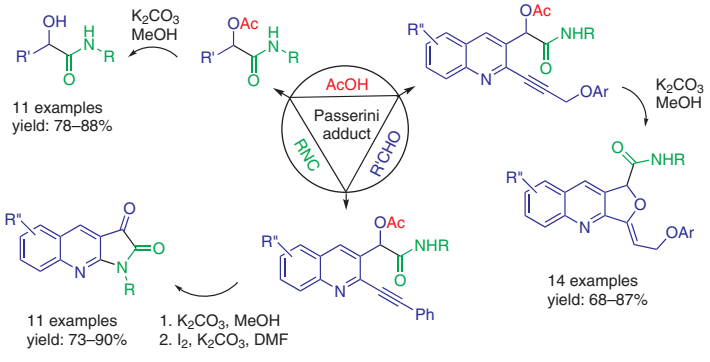

Synthesis

Synthesis **2020**, *52*, 3253–3262
DOI: 10.1055/s-0040-1707174

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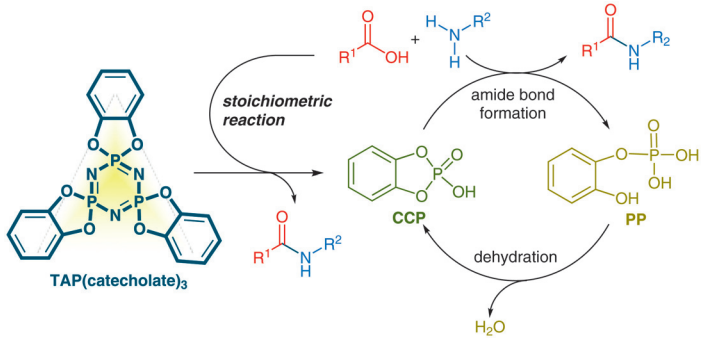
Tris(*o*-phenylenedioxy)cyclotriphosphazene as a Promoter for the Formation of Amide Bonds Between Aromatic Acids and Amines

Special Topic



Synthesis

Synthesis **2020**, *52*, 3263–3271
DOI: 10.1055/s-0040-1707864

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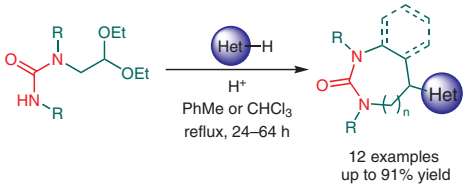
Nucleophilic Cyclization/Electrophilic Substitution of (2,2-Dialkoxyethyl)ureas: Highly Regioselective Access to Novel 4-(Het)arylimidazolidinones and Benzo[*d*][1,3]diazepinones

Special Topic



Synthesis

Synthesis **2020**, *52*, 3272–3276
DOI: 10.1055/s-0040-1707809

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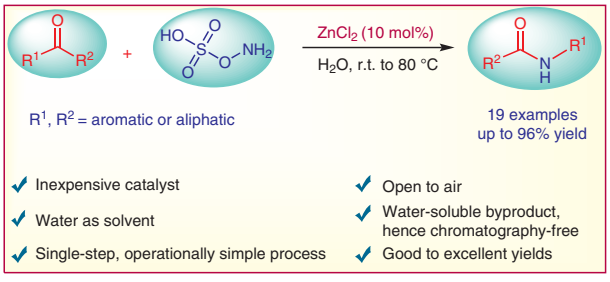
Zinc(II)-Catalyzed Synthesis of Secondary Amides from Ketones via Beckmann Rearrangement Using Hydroxylamine-*O*-sulfonic Acid in Aqueous Media

Special Topic



Synthesis

Synthesis **2020**, *52*, 3277–3285
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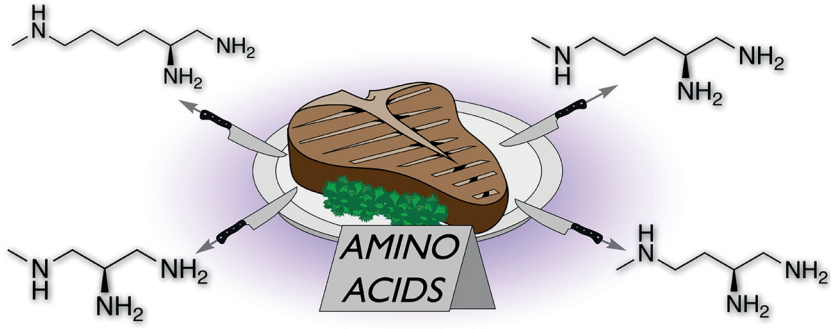
Syntheses of Enantiopure 1,2-Ethylenediamines with Tethered Secondary Amines of the Formula $H_2NCH_2CH[(CH_2)_nNHMe]NH_2$ (n = 1–4) from α-Amino Acids: New Agents for Asymmetric Catalysis

Special Topic



Synthesis

Synthesis **2020**, *52*, 3286–3294
DOI: 10.1055/s-0040-1705892

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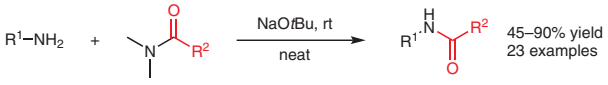
A Practical Approach for the Transamidation of *N*,*N*-Dimethyl Amides with Primary Amines Promoted by Sodium *tert*-Butoxide under Solvent-Free Conditions

Special Topic



R^1 = aliphatic, (hetero)aryl; R^2 = H or alkyl

- Transition-metal-free and solvent-free
- Uses 1.5 equiv of NaO*t*Bu and 3.0 equiv of the N,N-disubstituted amide
- Compatible with long-chain alkyl groups and heteroatom-containing amines
- Gram-scale reactions with an easy work-up procedure