

# Synthesis

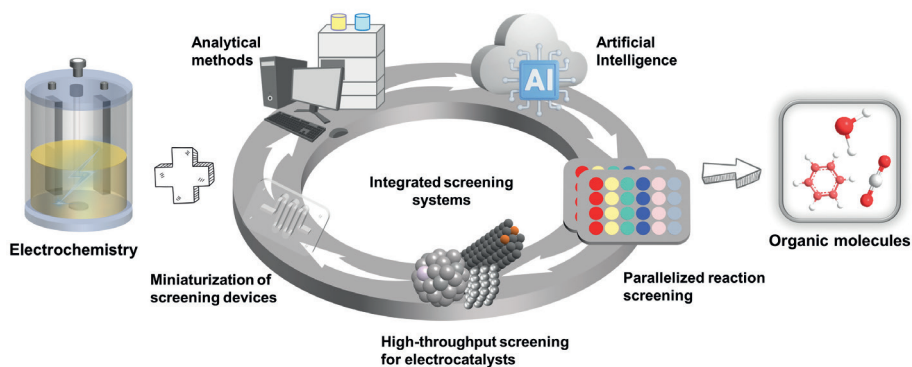
Reviews and Full Papers in Chemical Synthesis

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## Special Topic

*Electrochemical Organic Synthesis*

*Editor: Liu-Zhu Gong, Guest Editor: Hai-Chao Xu*



Accelerated Electrosynthesis Development Enabled by High-Throughput Experimentation

*H. Chen, Y. Mo*

18

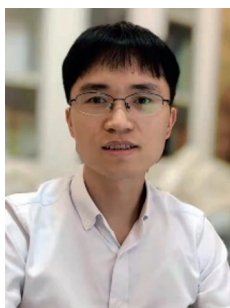
## Synthesis

## Electrochemical Organic Synthesis

## Editorial

*Synthesis* **2023**, 55, 2797–2798  
DOI: 10.1055/a-2096-4349

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2797

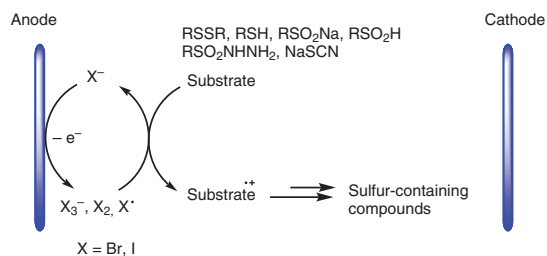
## Synthesis

## Progress in S–X Bond Formation by Halogen-Mediated Electrochemical Reactions

## Review

*Synthesis* **2023**, 55, 2799–2816  
DOI: 10.1055/a-2096-4349

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## Synthesis

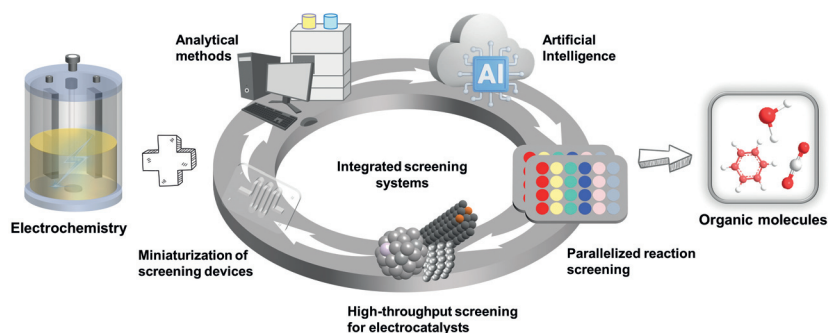
Synthesis 2023, 55, 2817–2832  
DOI: 10.1055/a-2072-2617

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## Accelerated Electrosynthesis Development Enabled by High-Throughput Experimentation

Short Review

2817



## Synthesis

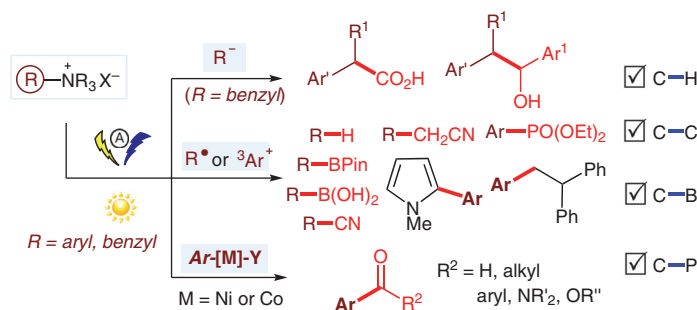
Synthesis 2023, 55, 2833–2842  
DOI: 10.1055/a-2020-8923

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## Recent Advances in Electro- or Photochemical Driven Transformations via Cleavage of the C–N Bond of Quaternary Ammonium Salts

Short Review

2833



## Synthesis

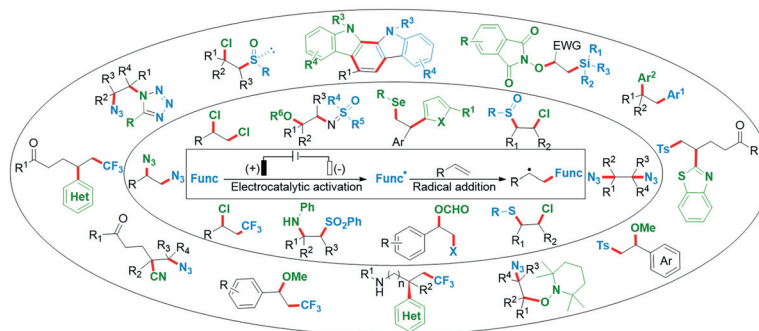
Synthesis 2023, 55, 2843–2859  
DOI: 10.1055/a-2036-2074

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## Electrochemical Difunctionalization of Alkenes

Short Review

2843



## Synthesis

Synthesis 2023, 55, 2860–2872  
DOI: 10.1055/a-2044-2140

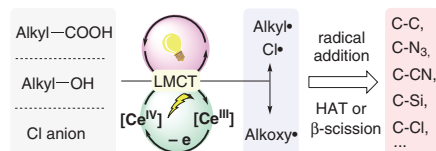
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## Photoelectrochemical Cerium Catalysis via Ligand-to-Metal Charge Transfer: A Rising Frontier in Sustainable Organic Synthesis

Short Review

2860



## Synthesis

Synthesis 2023, 55, 2873–2895  
DOI: 10.1055/a-2019-0399

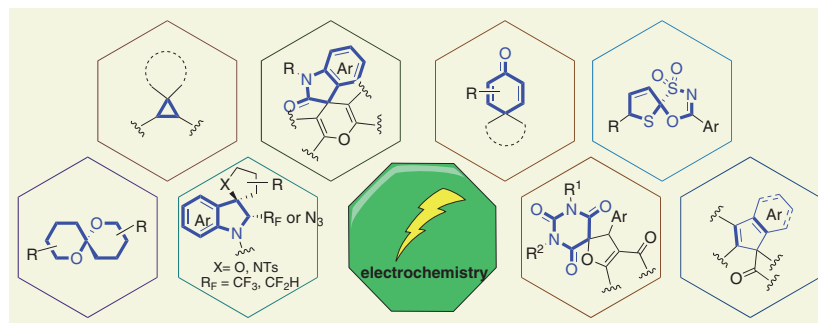
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## Research Advances in Electrochemical Synthesis of Spirocyclic Skeleton Compounds

Short Review

2873



## Synthesis

Synthesis 2023, 55, 2896–2910  
DOI: 10.1055/a-2004-6485

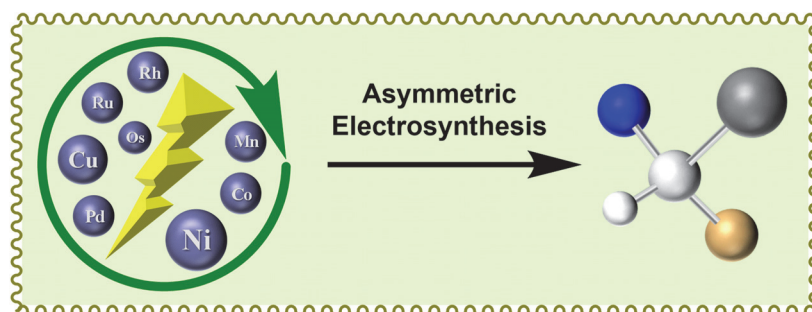
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## Asymmetric Organic Electrochemistry Catalyzed by Transition Metals

Short Review

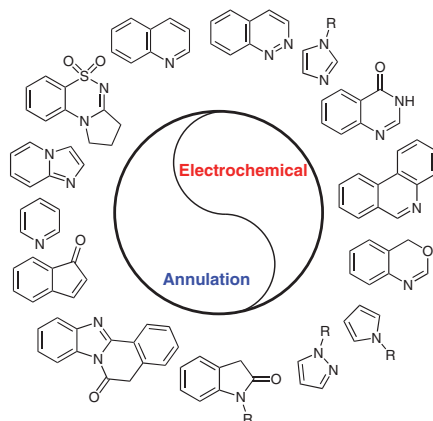
2896



Synthesis 2023, 55, 2911–2925  
DOI: 10.1055/a-2039-1728

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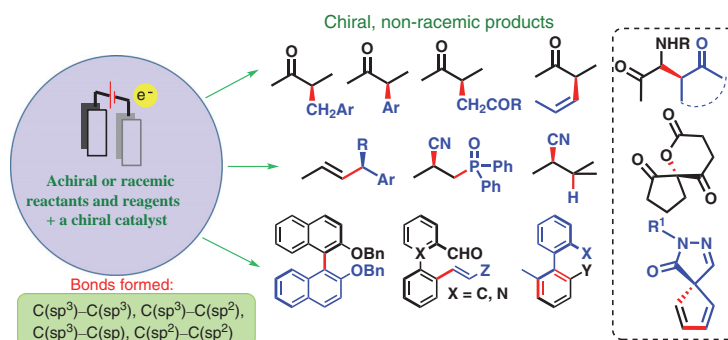
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Synthesis 2023, 55, 2926–2942  
DOI: 10.1055/a-2011-7073

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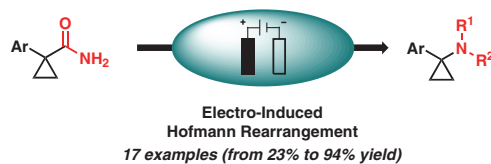
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Synthesis 2023, 55, 2943–2950  
DOI: 10.1055/a-2050-9368

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## Synthesis

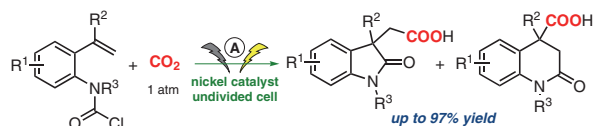
Synthesis 2023, 55, 2951–2958  
DOI: 10.1055/s-0041-1738439

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## Nickel-Catalyzed Electrochemical Cyclizative Carboxylation of Alkene-Tethered Carbamoyl Chlorides with Carbon Dioxide

Paper  
2951



## Synthesis

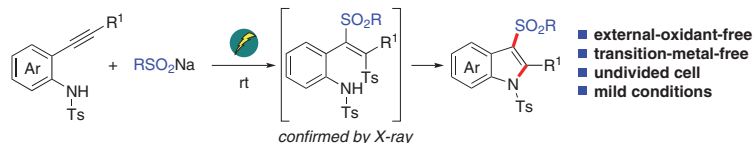
Synthesis 2023, 55, 2959–2968  
DOI: 10.1055/a-1996-8054

P. Jiang  
R. Liu  
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Electrochemical Synthesis of 3-Sulfonylindoles via Annulation of *o*-Alkynylanilines with Sodium Sulfinates

Paper  
2959



## Synthesis

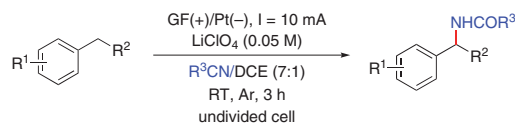
Synthesis 2023, 55, 2969–2978  
DOI: 10.1055/a-1992-7066

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Electrochemical Benzylic C(sp<sup>3</sup>)-H Amidation via Ritter-Type Reaction in the Absence of External Mediator and Oxidant

Paper  
2969



- ▲ Transition-metal-free
- ▲ External-oxidant-free
- ▲ Mediator-free
- ▲ Broad substrate scope

## Synthesis

Synthesis 2023, 55, 2979–2984  
DOI: 10.1055/a-2000-8231

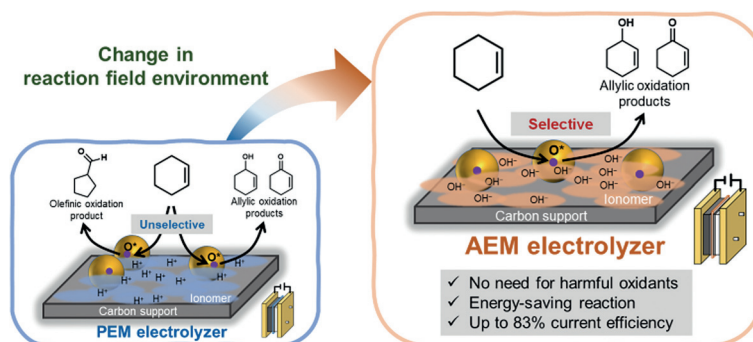
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## Comparative Investigation of Electrocatalytic Oxidation of Cyclohexene by Proton-Exchange Membrane and Anion-Exchange Membrane Electrolyzers

Paper

2979



## Synthesis

Synthesis 2023, 55, 2985–2992  
DOI: 10.1055/a-2038-9146

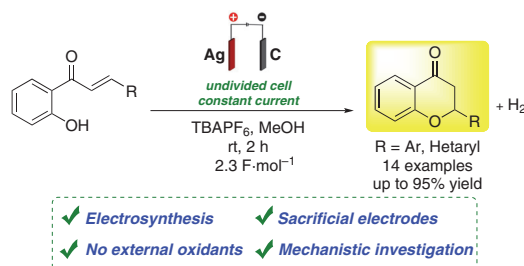
W. A. B. Santos  
P. P. de Castro  
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G. M. Martins\*  
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## Electrosynthesis of Flavanones via oxa-Michael Addition Using Sacrificial Electrodes

Paper

2985



## Synthesis

Synthesis 2023, 55, 2993–2998  
DOI: 10.1055/a-2013-5865

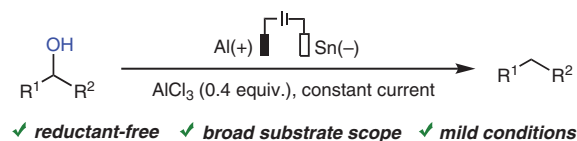
J. Liu  
X. Li  
X. Chen  
T. Wang  
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## Electrochemical Deoxygenation of Alcohols into Alkanes

Paper

2993



## Synthesis

Synthesis 2023, 55, 2999–3004  
DOI: 10.1055/a-2034-9821

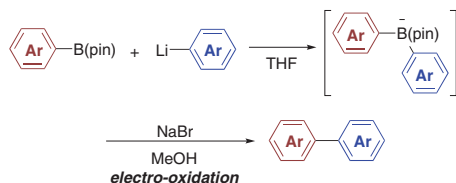
K. Mitsudo\*  
K. Shigemori  
T. Shibata  
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## Electrochemical Cross-Coupling Reactions between Arylboronic Esters and Aryllithiums Using NaBr as a Halogen Mediator

Paper

2999



## Synthesis

Synthesis 2023, 55, 3005–3012  
DOI: 10.1055/a-2044-1995

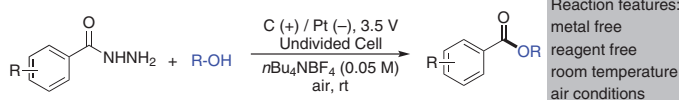
P. Xie  
X. Peng  
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## Reagent-Free Esterification from Benzoyl Hydrazines and Alcohols under Electrochemical Conditions

Paper

3005



## Synthesis

Synthesis 2023, 55, 3013–3018  
DOI: 10.1055/a-2039-4825

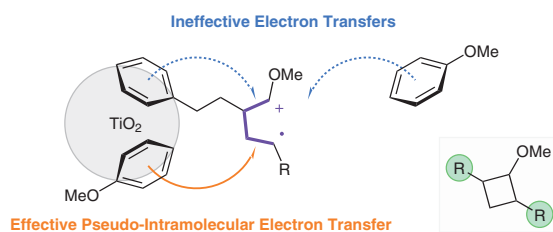
S. Adachi  
N. Maeta  
K. Nakayama  
Z. Wang  
Y. Hashimoto  
Y. Okada\*

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## Radical Cation [2+2] Cycloadditions Enabled by Surface-Assisted Pseudo-Intramolecular Electron Transfers

Paper

3013





## Synthesis

Synthesis 2023, 55, 3019–3025  
DOI: 10.1055/a-2029-0617

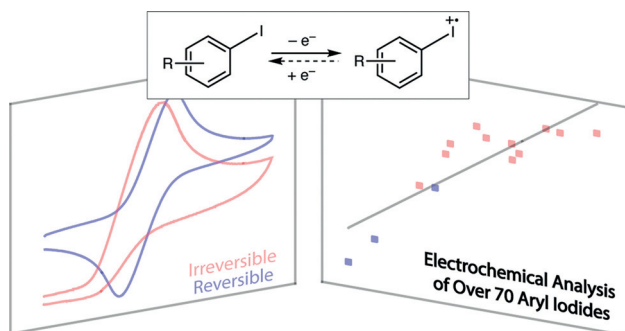
B. L. Frey  
P. Thai  
L. Patel  
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Texas A&M University, USA

## Structure–Activity Relationships for Hypervalent Iodine Electro-catalysis

Paper

3019



## Synthesis

Synthesis 2023, 55, 3026–3032  
DOI: 10.1055/a-2147-2863

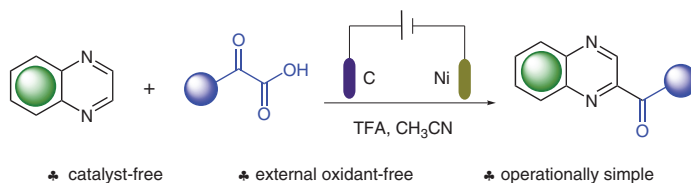
Y. Li  
S. Liang\*  
D. Wang  
K. Xu\*  
C. Zeng\*

Beijing Technology and Business University, P. R. of China  
Beijing University of Technology, P. R. of China

## Electrochemical Decarboxylative Minisci-Type Acylation of Quinoxalines under Catalyst- and External-Oxidant-Free Conditions

Paper

3026



## Synthesis

Synthesis 2023, 55, 3033–3039  
DOI: 10.1055/a-2006-1285

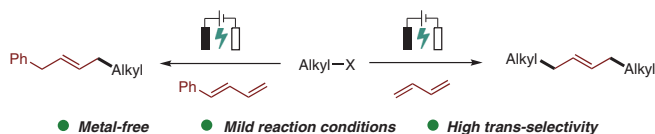
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Electrochemical Synthesis of *trans*-Olefins from Buta-1,3-dienes and Alkyl Halides

Paper

3033



Synthesis

Electrochemical Difunctionalization of Alkenes towards the Synthesis of  $\beta$ -Bromoethers under Metal-Free Conditions

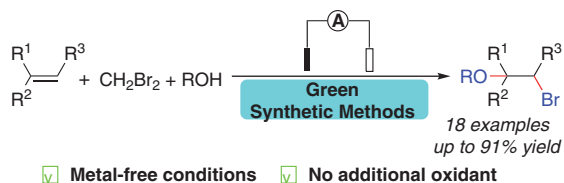
Paper

3040

Synthesis 2023, 55, 3040–3046  
DOI: 10.1055/a-2025-1822

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Synthesis

Catalyst- and Additive-Free Electrochemical CO<sub>2</sub> Fixation into Morita–Baylis–Hillman Acetates

Paper

3047

Synthesis 2023, 55, 3047–3055  
DOI: 10.1055/a-2029-0488

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