

# CJC

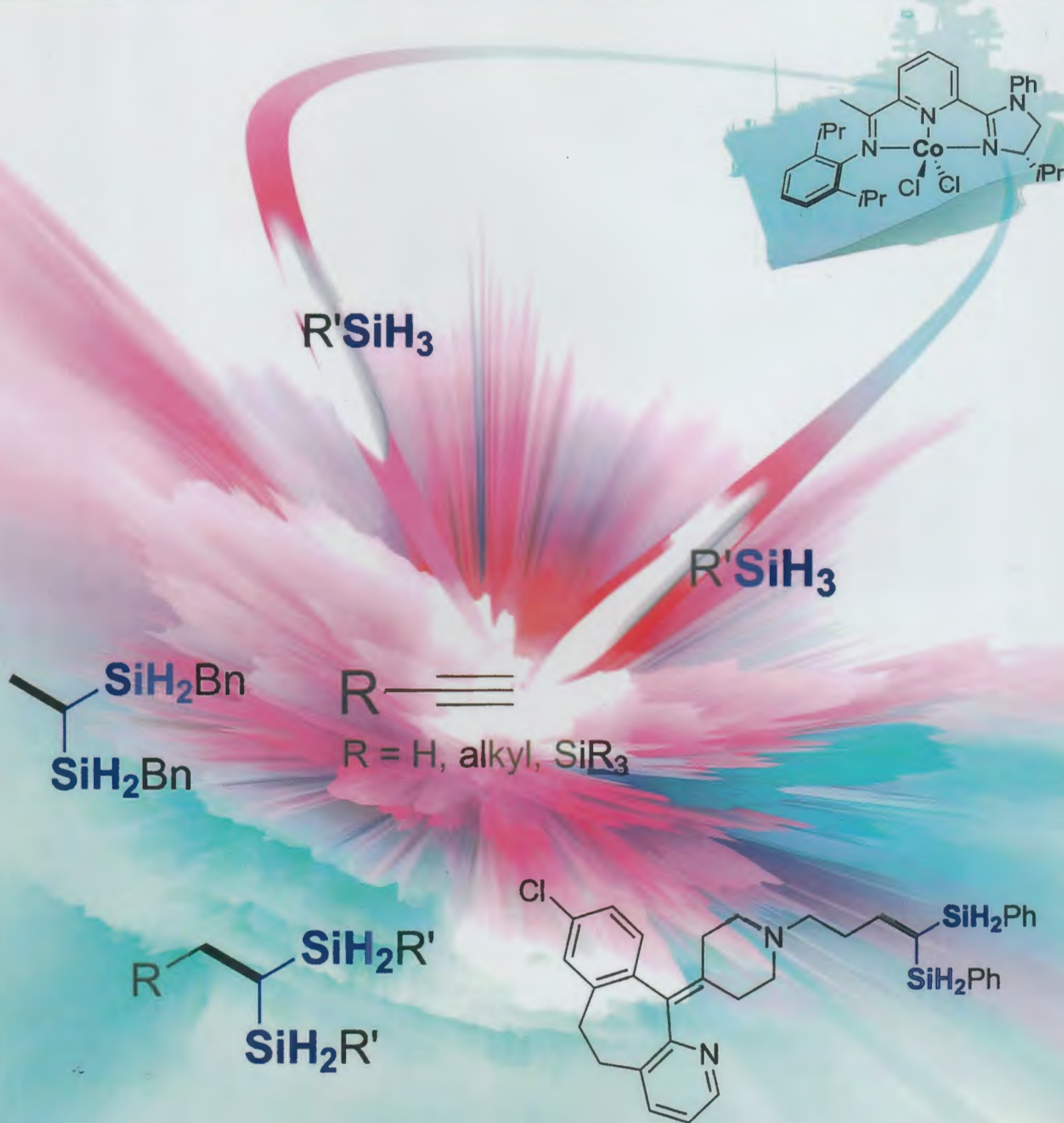
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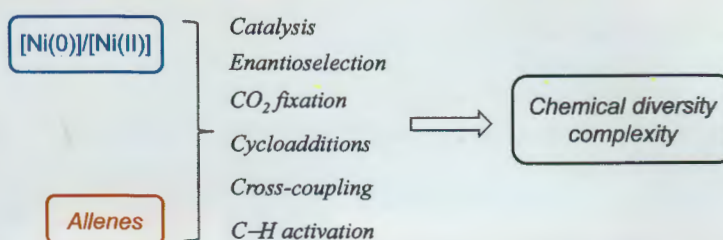


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## Chemistry Authors Up Close

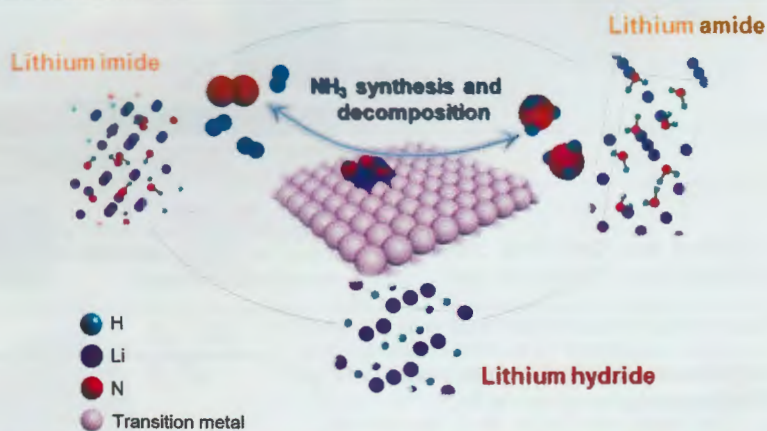
431  
Nickel Catalyzed Functionalization of Allenes



Yang Liu, Marco Bandini\*

The latest findings in the Ni catalyzed/promoted organic manipulations of allenes and allene derivatives are presented herein.

442  
Hydrides, Amides and Imides Mediated Ammonia Synthesis and Decomposition



Wenbo Gao, Jianping Guo,\* Ping Chen\*

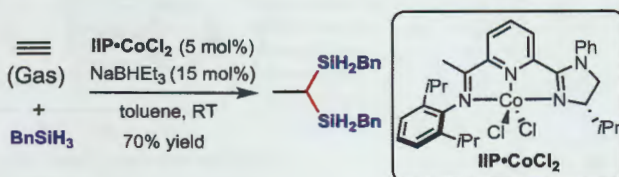
## Breaking Reports

452  
Copper-Catalyzed Carbotrifluoromethylation of Unactivated Alkenes Driven by Trifluoromethylation of Alkyl Radicals



Zhenzhen Zhang, Lin Zhu, Chaozhong Li\*

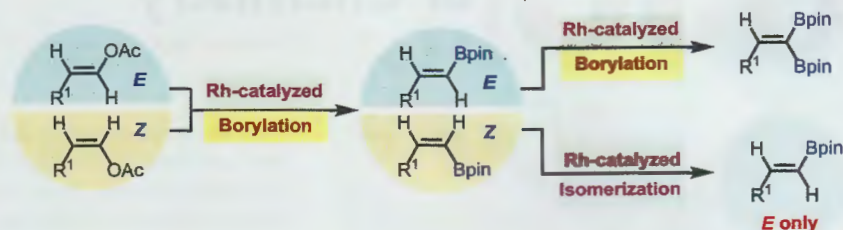
457  
Highly Regioselective Sequential 1,1-Dihydrosilylation of Terminal Aliphatic Alkynes with Primary Silanes



Zhaoyang Cheng, Shipai Xing, Jun Guo, Biao Cheng, Lan-Fang Hu, Xing-Hong Zhang, Zhan Lu\*

462

Stereoselective Synthesis of Vinylboronates by Rh-Catalyzed Borylation of Stereoisomeric Mixtures

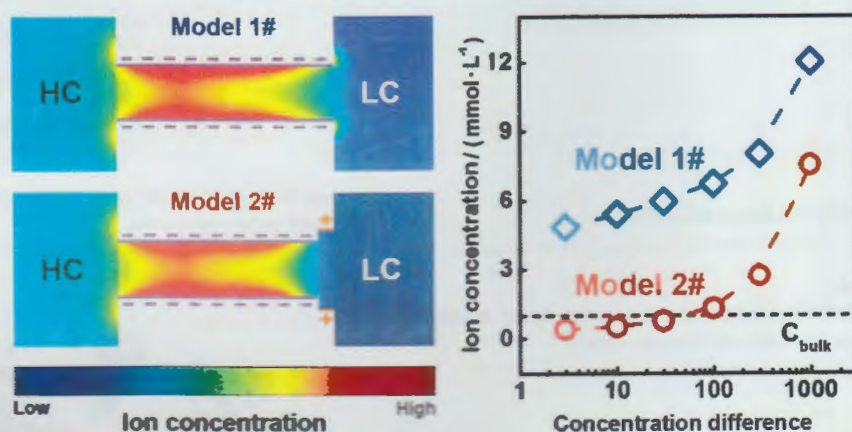


A variety of (*E*)-vinylboronates and vinyl diboronates were prepared via rhodium-catalyzed borylation of an *E/Z* mixture of vinyl esters. Mechanistic studies indicated that the mechanism involved a borylation-isomerization sequence. The *Z* to *E* isomerization of the vinylboronates was also demonstrated.

Shenhuan Li, Jie Li, Tianlai Xia, Wanxiang Zhao\*

469

On the Role of Heterogeneous Nanopore Junction in Osmotic Power Generation

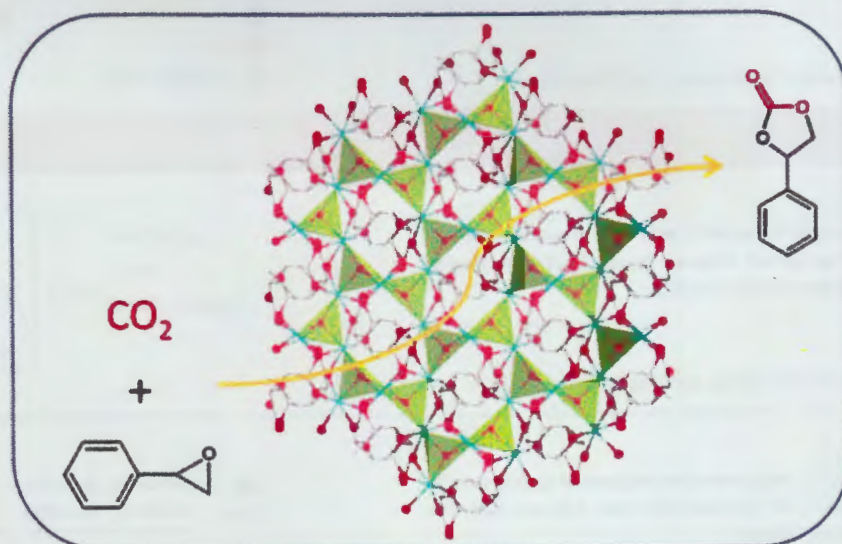


Ion concentration polarization can be effectively suppressed by heterogeneous nanopore junction at the low-concentration end. With appropriately optimized parameters, the overall performance can be greatly enhanced.

Hao Li, Feilong Xiao, Gang Hong, Jianjian Su, Ning Li, Liuxuan Cao,\* Qi Wen,\* Wei Guo\*

474

[Zn<sub>4</sub>O] Cluster-Based Metal-Organic Frameworks as Catalysts for Conversion of CO<sub>2</sub>

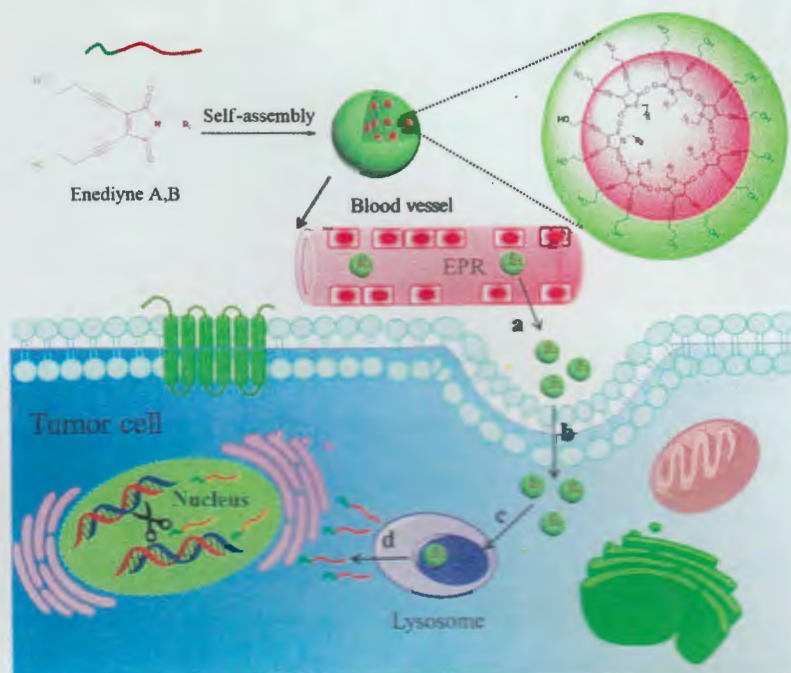


One new two-dimensional [Zn<sub>4</sub>O] cluster-based MOF can serve as an efficient and recyclable heterogeneous catalyst to catalyze CO<sub>2</sub> coupling with epoxides into cyclic carbonates under mild conditions.

Wanzhen Qiao, Tianqun Song, Bin Zhao\*

479

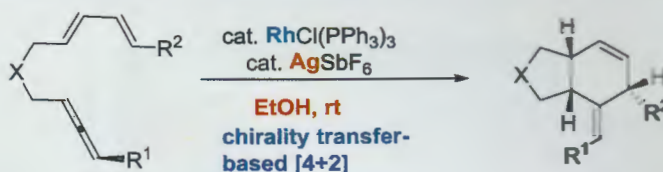
Self-Delivery Nanoparticles of Amphiphilic Acyclic Eneidyne for Efficient Tumor Cell Suppression



Jing Li, Yuequn Wu, Lili Sun, Shuai Huang, Baojun Li, Yun Ding, Aiguo Hu\*

486

One Stone for Three Birds-Rhodium-Catalyzed Highly Diastereoselective Intramolecular [4+2] Cycloaddition of Optically Active Allene-1,3-dienes

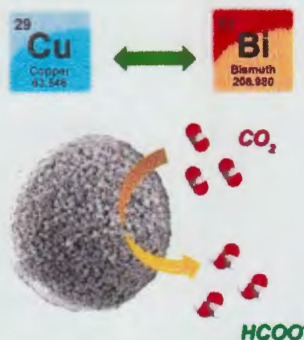


Rhodium-catalyzed intramolecular [4+2] cycloaddition of optically active allene-1,3-dienes afforded bicyclic products in excellent stereoselectivity.

Yulin Han, Anni Qin, Shengming Ma\*

497

Copper-Bismuth Bimetallic Microspheres for Selective Electrocatalytic Reduction of CO<sub>2</sub> to Formate



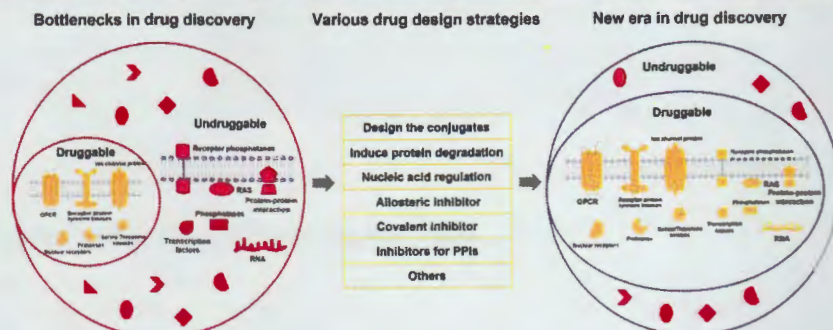
Bimetallic Cu-Bi CO<sub>2</sub>RR electrocatalysts were prepared via the cathodic conversion of hierarchical CuBi<sub>2</sub>O<sub>4</sub> microspheres. They enabled the high-performance electrocatalytic reduction of CO<sub>2</sub> to formate with large current density, excellent selectivity, and sufficient durability.

Lin Jia, Hui Yang, Jun Deng, Junmei Chen, Yuan Zhou, Pan Ding, Leigang Li, Na Han,\* Yanguang Li\*

## Recent Advances

501

Drug Design of "Undruggable" Targets



Jie Wang, Shiliang Li, Honglin Li\*

Drug design strategies against "undruggable" targets.

513  
Recent Advances in Constructing Nitrogen-Containing Heterocycles via Electrochemical Dehydrogenation



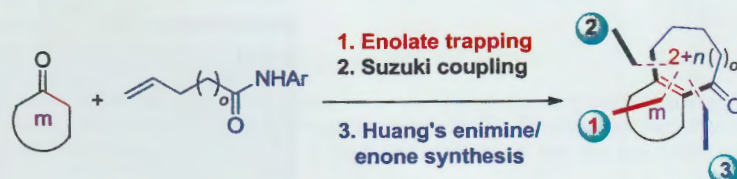
- External Oxidant-Free*
- Environmentally Friendly*
- Innately Scalable*
- Mild Conditions*
- Functional Group Tolerant*
- Enabling New Reactivity*

Zenghui Ye, Fengzhi Zhang\*

In this paper, we summarize the most recent advances in constructing nitrogen-containing heterocycles by electrochemical dehydrogenation.

Inside Story

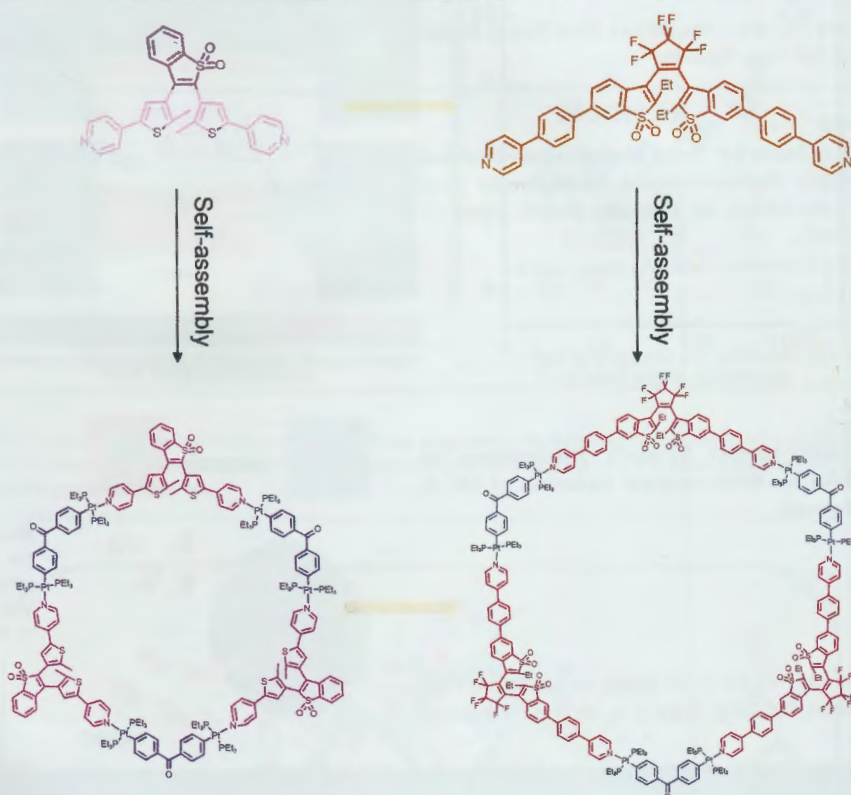
529  
Polycyclic Structure Synthesis via a Three-step “[2+n]” Annulation



Qian He, Dong-Ping Wu\*

Recently, we developed a new strategy for the synthesis of polycyclic structure via a three-step “[2+n]” annulation protocol from simple cycloketones and terminal olefinic amides.

531  
From the Photochromic Metallacycles to the “Turn-On” Photo-Switchable Fluorescent Metallacycles



Yi Qin\*

Developing from the photochromic metallacycles to the “turn-on” photo-switchable fluorescent metallacycles.