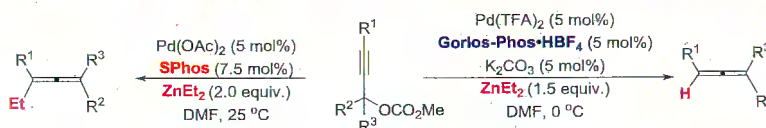


Breaking Reports

1003

Negishi Coupling for Highly Selective Syntheses of Allenes via Ligand Effect and Mechanistic Study via SAESI-MS/MS

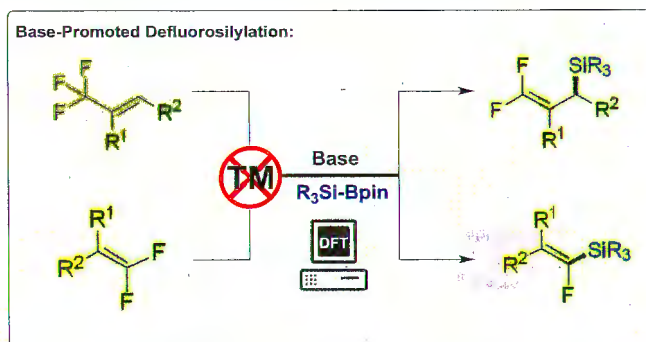


Yangguangyan Zheng, Bukeyan Miao, Anni Qin, Junzhe Xiao, Qi Liu, Gen Li, Li Zhang, Fang Zhang, Yinlong Guo,* Shengming Ma*

1. SAESI-MS approach for capturing the highly reactive organometallic intermediates and demonstrating reactivity towards final products
2. Ligand-controlled synthesis, high selectivity
3. Wide functional group tolerance and decent yields

1009

Transition-Metal-Free Defluorosilylation of Fluoroalkenes with Silylboronates



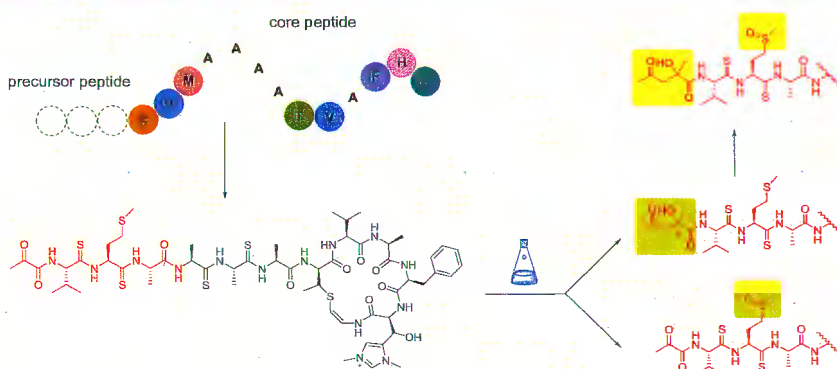
Pan Gao, Guoqiang Wang, Longlong Xi, Minyan Wang, Shuhua Li,* Zhuangzhi Shi*

A mild, catalyst-free system has been established for the defluorosilylation of various fluoroalkenes with silylboronates via C–F activation. This route employs an inexpensive alkoxy base and can be used to generate silylated fluoroalkenes with a variety of synthetically useful functional groups.

Concise Reports

1015

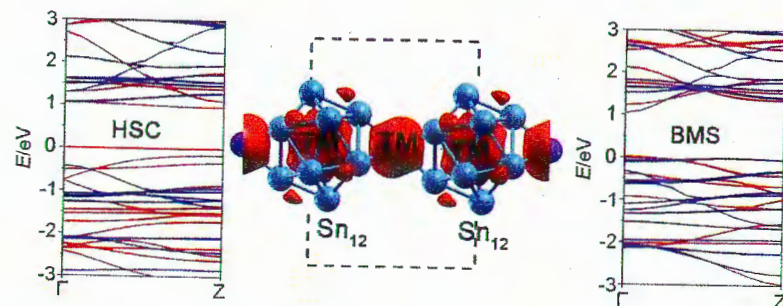
Discovery of New Thioviridamide-Like Compounds with Antitumor Activities



Yuqing Li, Jingyu Liu, Haoyu Tang, Yanping Qiu, Dandan Chen,* Wen Liu*

Discovery of novel antitumor thioviridamide-like compounds provides an insight into the structural modifications during the compound extraction process.

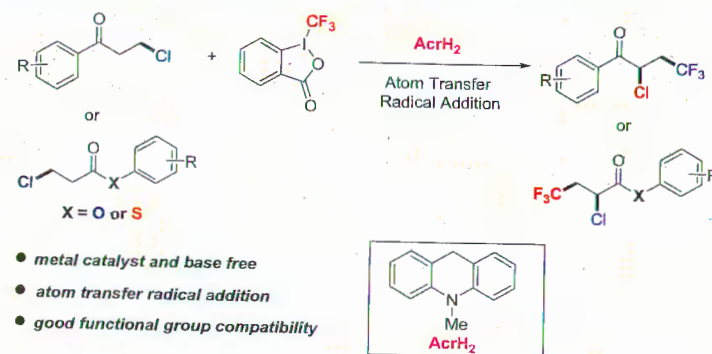
1021
Computational Design of One-Dimensional Ferromagnetic Semiconductors in Transition Metal Embedded Stannaspherene Nanowires



Through theoretically designing a new class of functional nanowires via molecular assembly of stannaspherene and transition metals, ideal one dimensional ferromagnetic semiconductors with moderate band gaps (~1 eV), robust ferromagnetism and large magnetic anisotropy energies (~1 meV/TM) were realized.

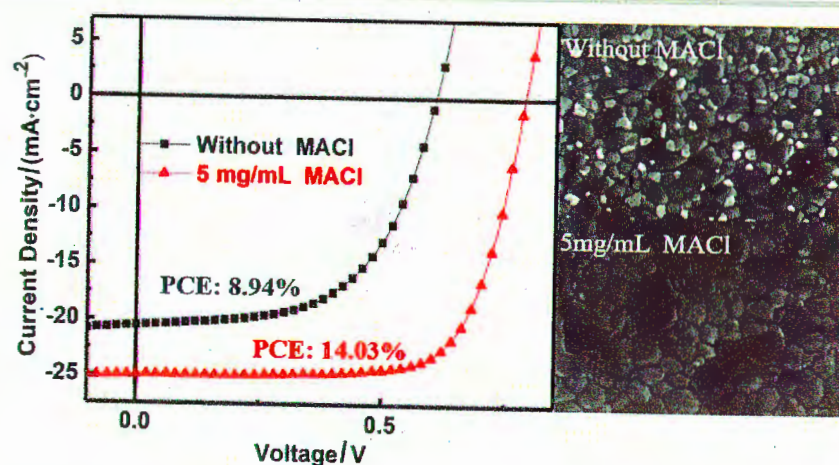
Xingxing Li, Jinlong Yang*

1025
Efficient AcrH_2 Catalyzed β -Trifluoromethylation of Carbonyl Compounds by Atom Transfer Radical Addition Reactions



Zi-Peng Rao, Yu-Yang Sun, Xin-Feng Zhou, Qiang Xie, Hui-Xia Zhu, Jian-Jun Dai, Jun Xu,* Hua-Jian Xu*

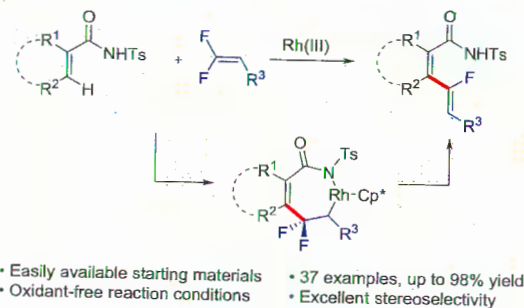
1031
Sn-Pb Binary Perovskite Films with High Crystalline Quality for High Performance Solar Cells



High-quality Sn-Pb binary perovskite film was formed with MACl post-treatment, which contributes to a power conversion efficiency (PCE) of 14.03%.

Xuankun Guo, Jiehan Chen, Xiaomei Lian, Yaqin Wang, Gang Wu,* Hongzheng Chen*

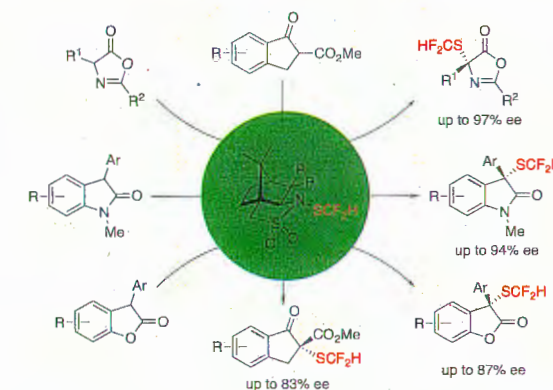
1036
Rhodium-Catalyzed Defluorinative Vinylation of *gem*-Difluoroalkenes for the Synthesis of 2-Fluoro-1,3-dienes



The fluoroalkenylation of alkenes based on rhodium-catalyzed C-H bond activation provides a new strategy for the synthesis of conjugated fluorinated dienes. Without oxidant, the simplicity and stereospecificity of reaction greatly broaden the application of the reaction in medicine synthesis.

Shengjin Song, Huan Liu, Lu Wang, Chuan Zhu, Teck-Peng Loh,* Chao Feng*

1041
Asymmetric Difluoromethylthiolation of Carbon Nucleophiles with Optically Pure Difluoromethylthiolating Reagents Derived from Camphorsultam

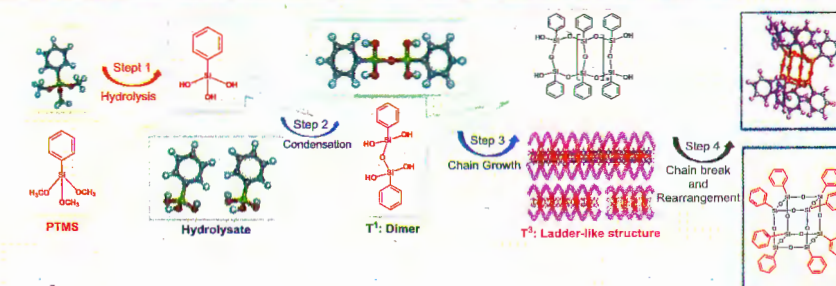


A family of optically pure electrophilic difluoromethylthiolating reagents based on the camphorsultam skeleton was invented. These reagents reacted with a variety of soft carbon nucleophiles such as oxazolone, oxindole, benzolactone and β -ketoester in good to excellent enantioselectivities.

He Zhang, Xiaolong Wan, Qilong Shen*

Comprehensive Report

1051
Mechanistic Insights into the Synthesis of Fully Condensed Polyhedral Octaphenylsilsesquioxane

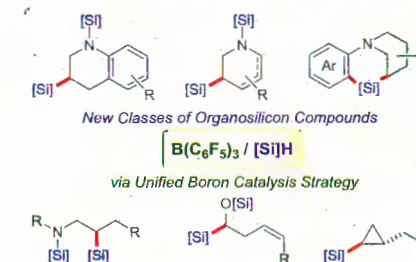


The hydrolysis of PTMS forms a hydrolyzed silanol, then dimer structure is formed by the condensation of the two silanol molecules. After that, the ladder-like structure is formed by the further condensation of the dimer structure. Finally, the break and rearrangement of the ladder-like chains give the cage structured OPS.

Zhao-Lu Qin, Rong-Jie Yang,* Wen-Chao Zhang, Qing-Jie Jiao

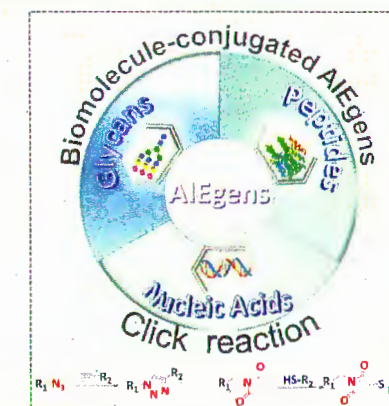
Recent Advances

1057
 $\text{B}(\text{C}_6\text{F}_5)_3$ -Catalyzed sp^3 C—Si Bond Forming Consecutive Reactions



Sehoon Park*

1072
Rational Fabrication and Biomedical Application of Biomolecule-Conjugated AIEgens through Click Reaction



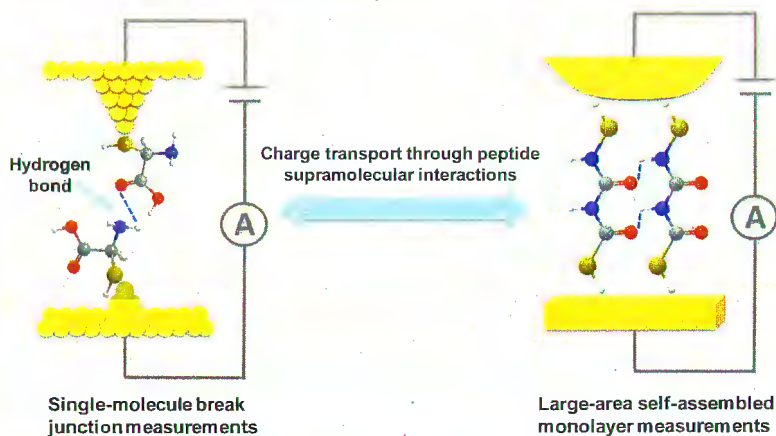
This review summarizes the rational fabrication and biomedical applications of biomolecule-conjugated AIE luminogens (AIEgens) based on "click chemistry" over the past decade.

Qiming Yuan, Yong Cheng, Xiaoding Lou,* Fan Xia*

Critical Review

1083

Charge Transport through Peptides in Single-Molecule Electrical Measurements

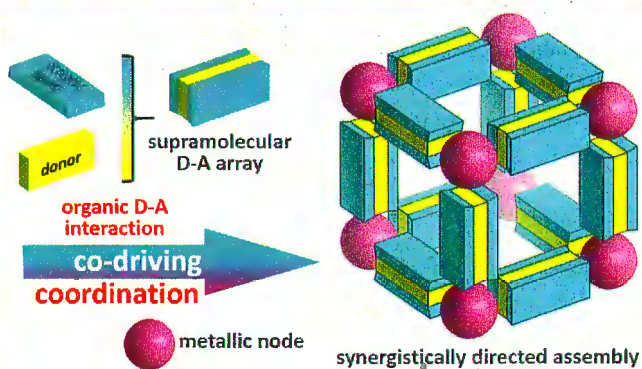


Haining Zheng, Feng Jiang, Runze He, Yang Yang, Jia Shi, Wenjing Hong*

Inside Story

1097

Donor-Acceptor Interaction: A Promising Tool for the Modulation of Coordination Directed Assembly Systems



Xi Wang*