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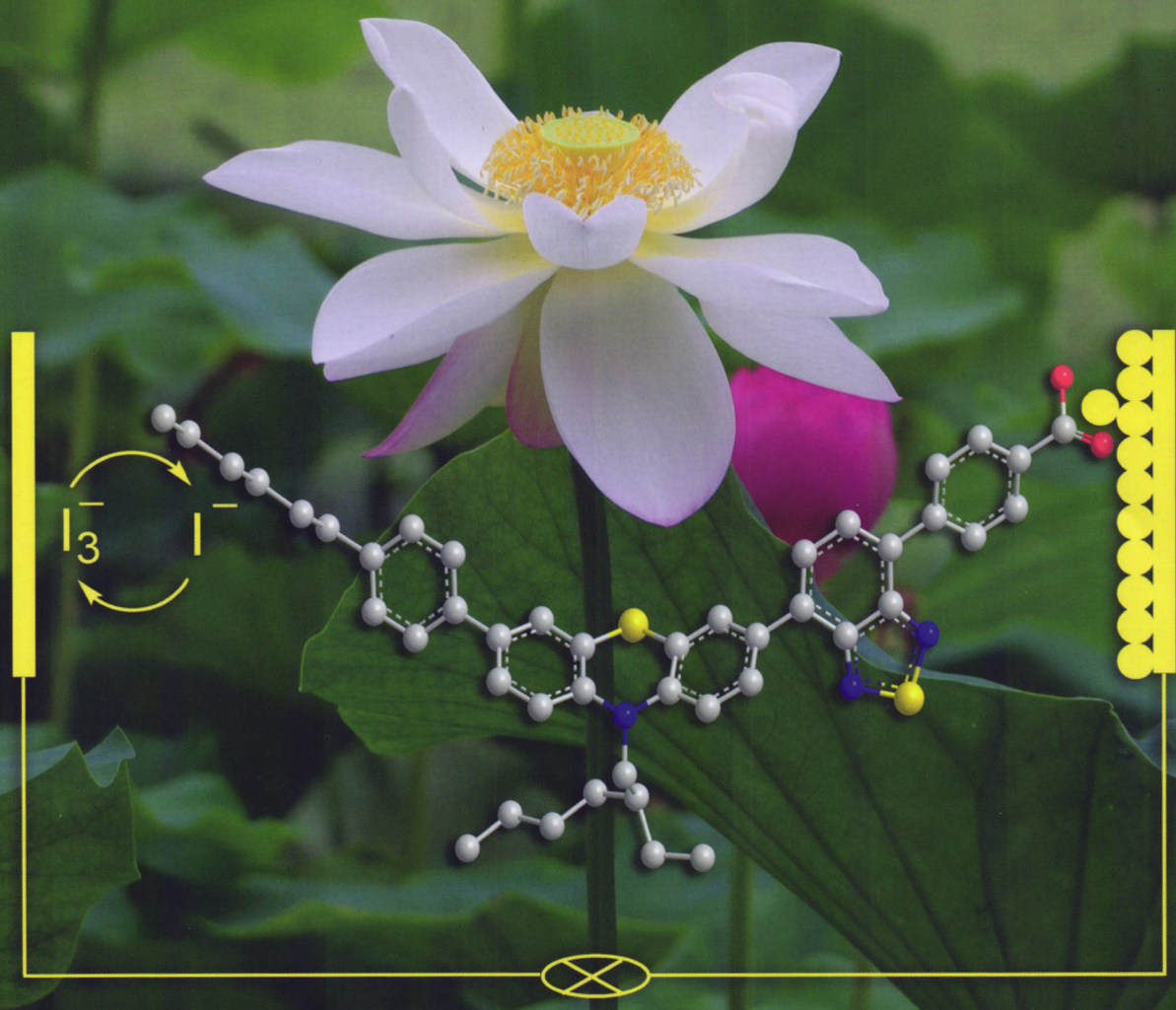


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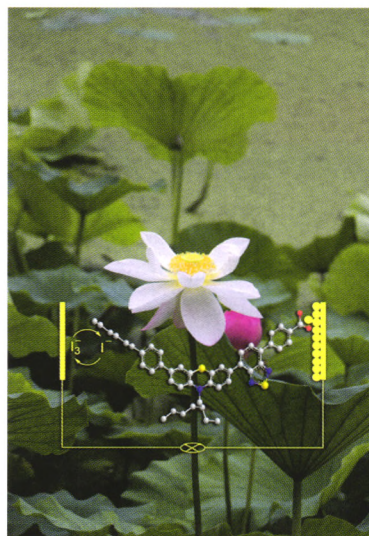
- 光促进的山道年重排反应在复杂萜类天然产物全合成中的应用 杨鲍潮, 高栓虎*, 化学学报, **2018**, 76(3), 161-167
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- 氮掺杂多孔炭片的模板法制备及其储锂性能研究 李志伟, 仲佳亮, 陈楠楠, 薛兵, 米红宇*, 化学学报, **2018**, 76(3), 209-214
- 含苯并噻二唑的吩噻嗪染料分子的设计合成及其在染料敏化太阳能电池中的应用 潘彬, 朱义州*, 邱昌娟, 王冰, 郑健禹*, 化学学报, **2018**, 76(3), 215-223

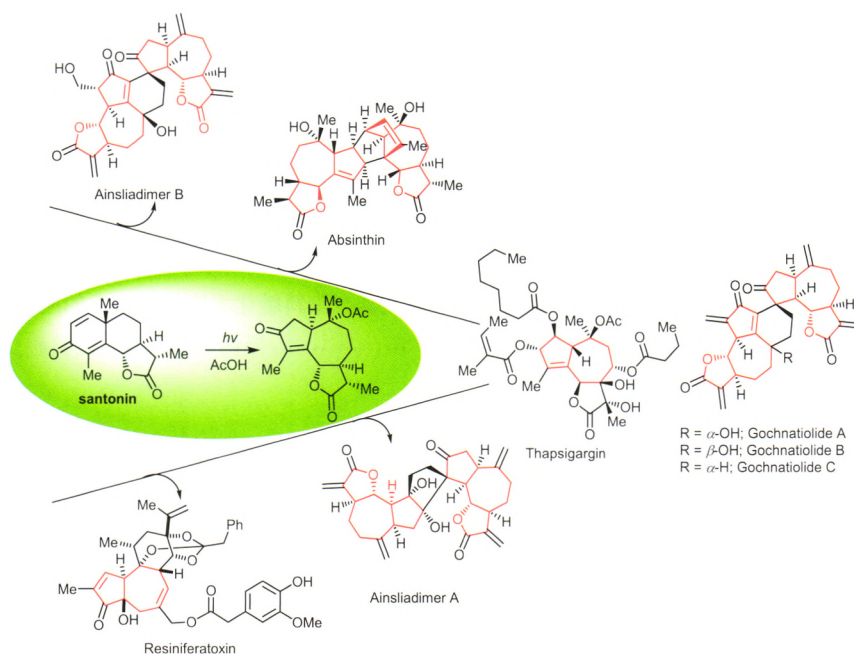
* 通信联系人.

On the cover: A series of novel phenothiazine dyes were synthesized and applied in highly efficient dye-sensitized solar cells. Dye **JY51** containing 4-hexylbenzene unit and benzoic acid acceptor finally achieves a high power conversion efficiency of 7.61%. [Zheng, Jian-Yu *et al.* on page 215-223.]



Review

Application of Photochemical Rearrangement of Santonin in Total Synthesis of Complex Natural Terpenoids



Photochemical rearrangement of santonin is an effective strategy to construct the guaianolide skeleton. Furthermore, as a renewable natural resource, santonin was extensively used in natural product total synthesis, especially complex terpenoids. In this review, a brief overview of application of photochemical rearrangement of santonin in total synthesis of natural complex terpenoids is presented.

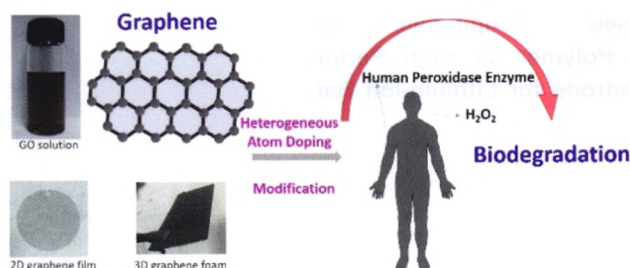
Yang, Baochao; Gao, Shuanhu*

Acta Chim. Sinica **2018**, 76(3), 161-167

A Review: Biodegradation Strategy of Graphene-Based Materials

Zhao, Keli; Hao, Ying; Zhu, Mo; Cheng, Guosheng*

Acta Chim. Sinica **2018**, 76(3), 168-176

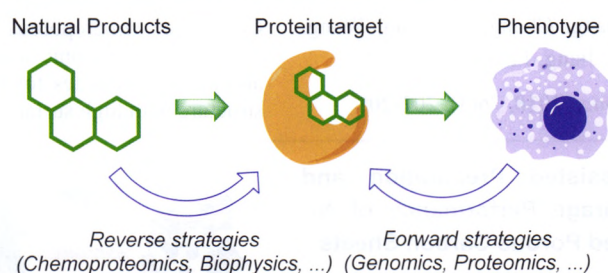


The biodegradation of graphene and its derivatives is now of great importance for their *in vivo* biomedical applications.

Target Identification of Bioactive Natural Products

Zhou, Yiqing; Xiao, Youli*

Acta Chim. Sinica **2018**, 76(3), 177-189



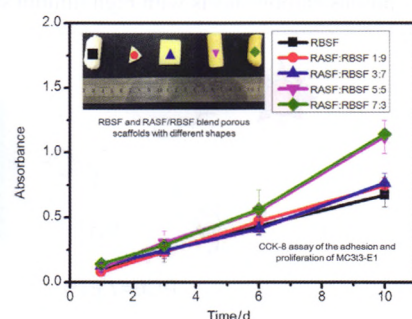
This review describes the most frequently used approaches for target identification of bioactive natural products and provides the representative examples to discuss the advantages, limitations, and applications of each strategy.

Article

Preparation and Properties of *Antheraea pernyi*/Bombyx mori Silk Fibroin Blending Scaffold

Duan, Yu; Chen, Xin; Shao, Zhengzhong*

Acta Chim. Sinica **2018**, 76(3), 190-195

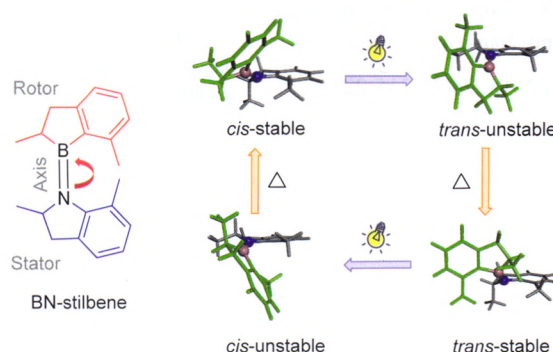


The regenerated *Bombyx mori* silk fibroin (RBSF) scaffold and regenerated *Antheraea pernyi* silk fibroin(RASF)/RBSF blending scaffolds with different ratios were prepared through treating 1-butanol/RSF solution under freezing. With the increase of RASF content, the scaffolds turned from white to yellow and the speed of MC3T3-E1 cell proliferation accelerated.

Theoretical Design and Mechanistic Study on a Light-Driven Molecular Rotary Motor with B=N Axis

Guo, Ni; Wang, Bin; Liu, Fengyi*

Acta Chim. Sinica **2018**, 76(3), 196-201

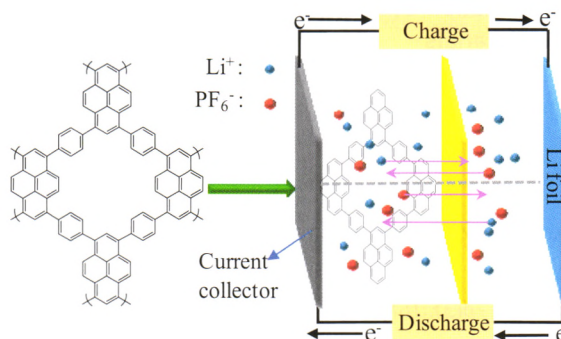


A promising model of light-driven rotary motor, namely BN-stilbene motor, constructed by replacing the central C=C axis of a CC-stilbene rotary motor with a polar B=N bond, was rationally designed. Calculations show that BN-stilbene has a good improvement in the nonadiabatic transition probabilities and the unidirectionality of the rotation compared with that of CC-stilbene, thus can serve as a candidate for light-driven molecular rotary motor.

Pyrene-Based Conjugated Microporous Polymer as High Performance Electrode for Lithium-Ion Batteries

He, Qian; Zhang, Chong; Li, Xiao; Wang, Xue; Mu, Pan; Jiang, Jiaying*

Acta Chim. Sinica **2018**, 76(3), 202-208

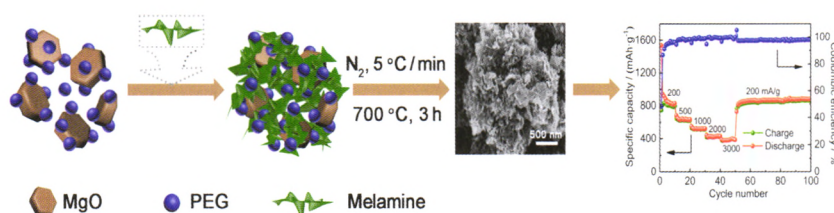


Conjugated microporous polymer PyDB produced from tetrabromopyrene and 1,4-benzene diboronic acid shows high electrochemical performance as both cathode and anode electrodes for LIBs due to its extended π -conjugation structure and porous structure with high surface area.

Template-Assisted Preparation and Lithium Storage Performance of Nitrogen Doped Porous Carbon Sheets

Li, Zhiwei; Zhong, Jialiang; Chen, Nannan; Xue, Bing; Mi, Hongyu*

Acta Chim. Sinica **2018**, 76(3), 209-214

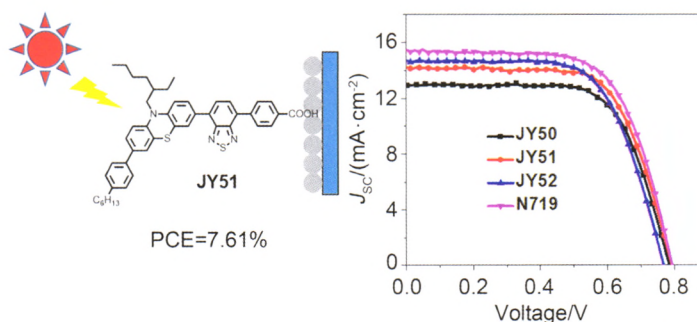


A low-cost and facile template-assisted approach to prepare N-doped interconnected porous carbon sheets with high lithium storage performance is reported.

Synthesis of Phenothiazine Dyes Featuring Benzothiadiazole Unit for Efficient Dye-sensitized Solar Cells

Pan, Bin; Zhu, Yi-Zhou*; Qiu, Changjuan; Wang, Bing; Zheng, Jian-Yu*

Acta Chim. Sinica **2018**, 76(3), 215-223



A high power conversion efficiency (PCE) of 7.61% was obtained by the phenothiazine-based dye of **JY51** with 4-hexylbenzene auxiliary donor and benzothiadiazole auxiliary acceptor.



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