



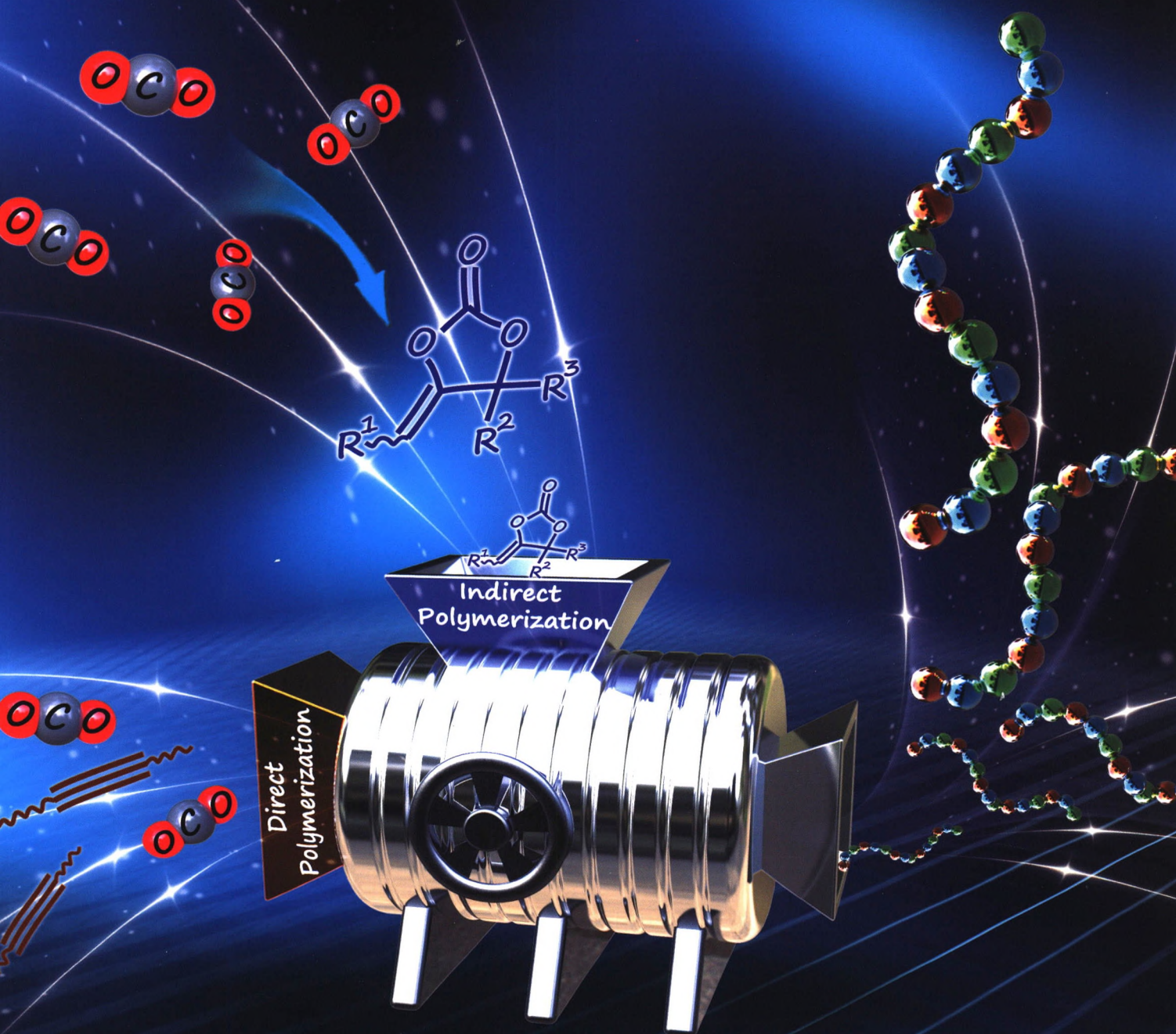
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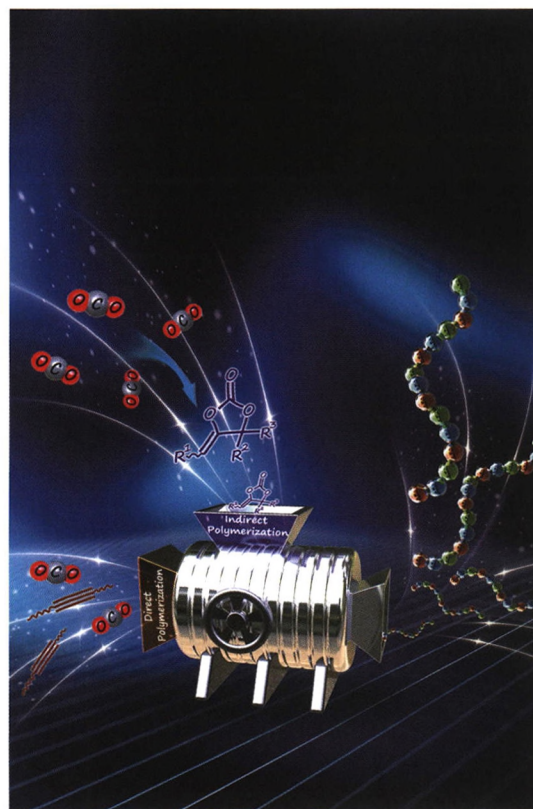
* 通信联系人.

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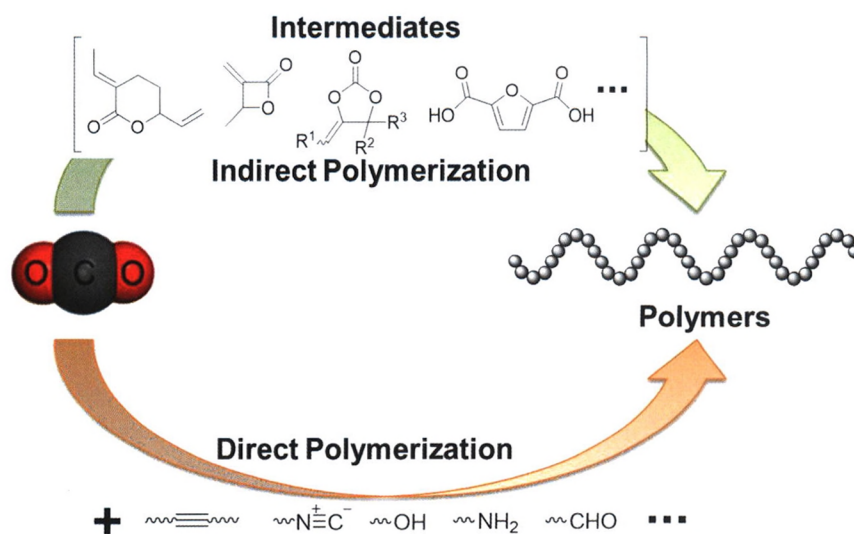
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On the cover: Using the green monomer of CO₂ to prepare polymeric materials has attracted more attention. This review summarizes the advances in converting CO₂ into polymeric materials during the past few years, and discusses the perspective in this area. [Tang, Ben Zhong *et al.* on page 9-22.]



Review

New Polymerizations Based on Green Monomer of Carbon Dioxide

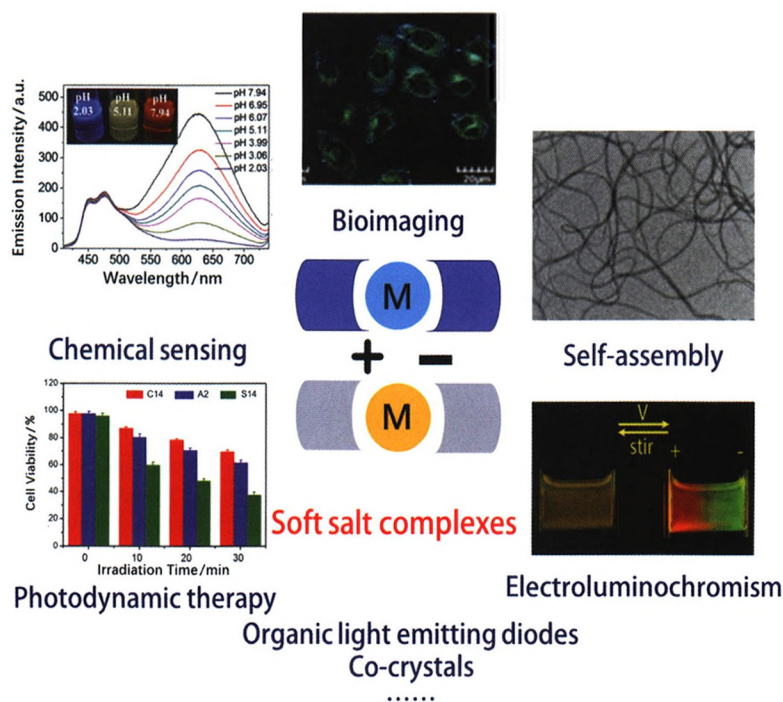


Song, Bo; Qin, Anjun*; Tang, Ben Zhong*

Acta Chim. Sinica **2020**, 78(1), 9-22

The recent progress in the polymerizations based on the green monomer of carbon dioxide is summarized in this review, and the perspective in this area is discussed.

Phosphorescent Soft Salt Complexes for Optoelectronic Applications



Ma, Yun; Chen, Kexin; Guo, Zeling; Liu, Shujuan; Zhao, Qiang*; Wong, Wai-Yeung*

Acta Chim. Sinica 2020, 78(1), 23-33

Recently, phosphorescent soft salt complexes have gained an increasing attention and this review aims to summarize the synthesis and photophysical properties of those complexes, and recent advances of them in different optoelectronic applications, including organic light emitting diodes, bioimaging, photodynamic therapy, electrochromic luminescence devices, etc.

Cyclic Lanthanide-based Molecular Clusters: Assembly and Single Molecule Magnet Behavior



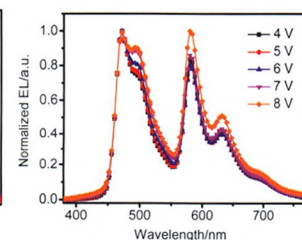
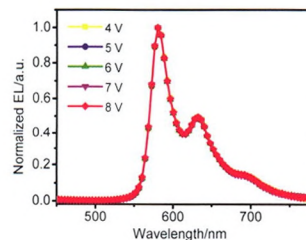
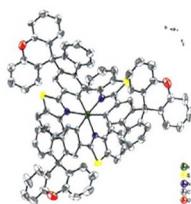
Tian, Haiquan; Zheng, Li-Min*

Acta Chim. Sinica 2020, 78(1), 34-55

The recent progress of cyclic lanthanide-based clusters with the main focus on the synthetic routes, crystal structures and magnetic properties are summarized in this review.

Article

Conjugated Regulation of Phosphorescent Iridium (III) Complex Constructed from Spiro Ligand and Its Electroluminescent Performances

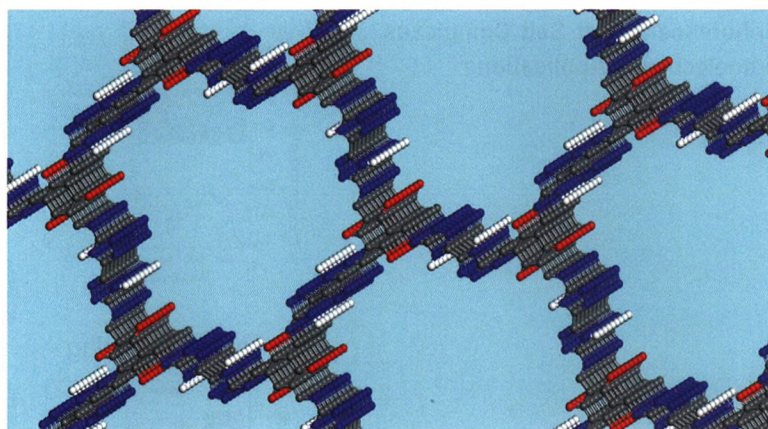


Ren, Bao-Yi; Yi, Jian-Cheng; Zhong, Dao-Kun; Zhao, Yu-Zhi; Guo, Run-Da*; Sheng, Yong-Gang; Sun, Ya-Guang*; Xie, Ling-Hai; Huang, Wei

Acta Chim. Sinica 2020, 78(1), 56-62

A new iridium(III) complex containing spiro ligand is designed and synthesized, and the results of device performances indicate that the complex is a potential phosphor for efficient orange and white organic light-emitting diodes, possessing the advantages of low-cost, suitable doping in high concentration, and stabilized color coordinates.

Synthesis of a Two-dimensional Covalent Organic Framework with the Ability of Conducting Proton along Skeleton

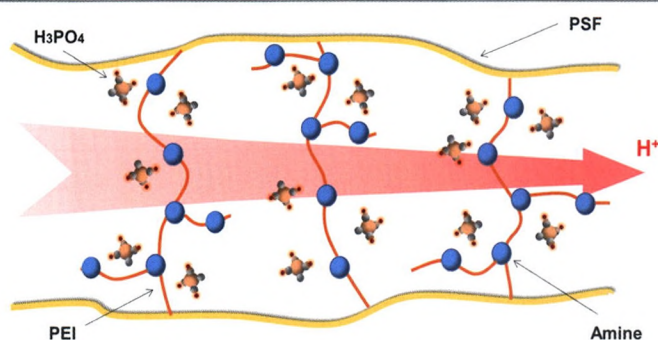


A novel two-dimensional covalent organic framework (COF) named TFP-BTDA-COF was synthesized by condensation of 5,5'-diamino-3,3'-bis(1*H*-1,2,4-triazole) (BTDA) containing triazole fragments in the structure and 2,4,6-triformylphloroglucinol (TFP) through Schiff-base reaction. The N—H bond of the triazole in the construction unit of BTDA is periodically and regularly arranged on each layer of the COF to form an ordered array because of the π - π accumulation of the 2D-COF. Under certain humidity conditions, the protons can be transmitted along the array in the one-dimensional pore channel by the intermediary of water molecules. Therefore, the TFP-BTDA-COF has the ability to conduct proton through the skeleton.

Wang, Zhitao; Li, Hui; Yan, Shichen; Fang, Qianrong*

Acta Chim. Sinica 2020, 78(1), 63-68

Self-crosslinked Polyethyleneimine-polysulfone Membrane for High Temperature Proton Exchange Membrane

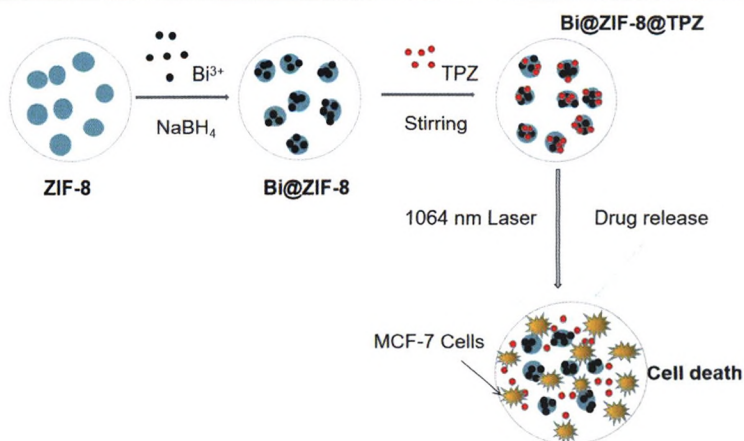


In this study, a novel self-crosslinked polyethyleneimine-polysulfone (PEI-PSF) high temperature proton exchange membrane with high mechanical properties was prepared, in which PEI acts as a crosslinking agent and provides phosphoric acid (PA) adsorption sites. Different from previous studies, as the degree of cross-linking increases, the acid adsorption of the membrane increases, resulting in high proton conductivity and cell performance.

Zhao, Weichen; Xu, Xin; Bai, Huijuan; Zhang, Jin*; Lu, Shanfu*; Xiang, Yan

Acta Chim. Sinica 2020, 78(1), 69-75

Rapid Synthesis of Bi@ZIF-8 Composite Nanomaterials for the Second Near-infrared Window Photothermal Therapy and Controlled Drug Release

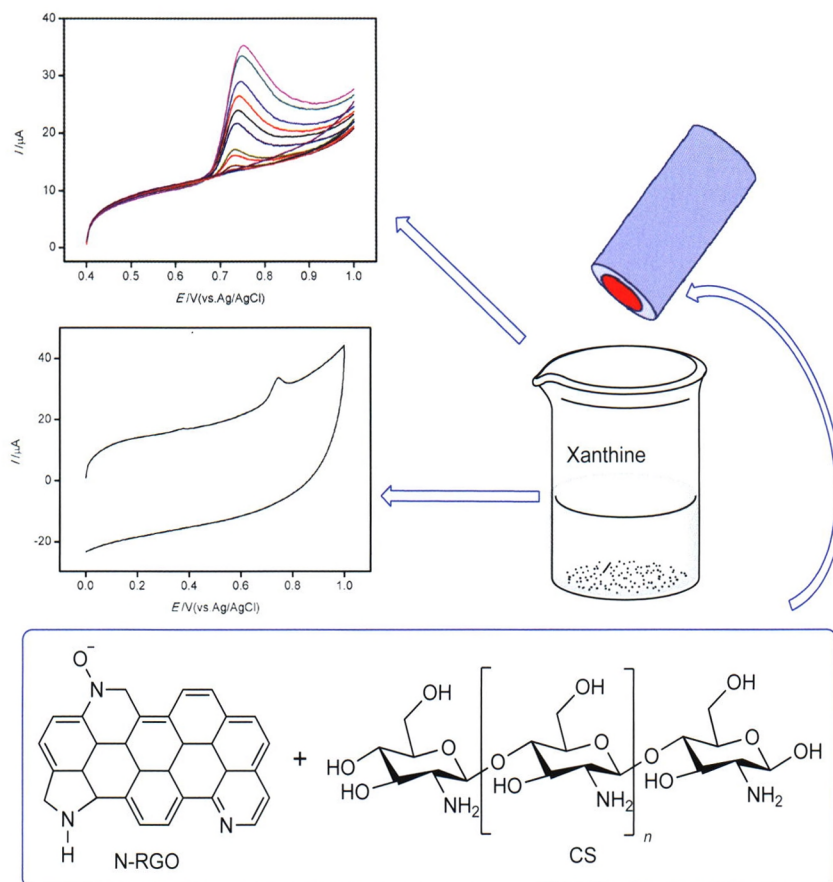


Wang, Yingmei; Zhu, Daoming; Yang, Yang; Zhang, Ke; Zhang, Xiuke; Lv, Mingshan; Hu, Li; Ding, Shuaijie; Wang, Liang*

Acta Chim. Sinica 2020, 78(1), 76-81

The nanomaterial Bi@ZIF-8 which Bi nanoparticles embedded in ZIF-8, was efficiently loaded with the anticancer drug tirapazamine (TPZ) to form a composite nanomaterial Bi@ZIF-8@TPZ. Under acidic and near-infrared two-zone (NIR-II) lighting conditions, controllable release of the drug can be achieved, and good therapeutic effects are approached.

Electrochemical Detection of Xanthine and Study for the Inhibition of Uric Acid Based on Chitosan/Nitrogen Doped Reduced Graphene Oxide Modified Electrode



Song, Guangjie; Wu, Tiaodi; Liu, Fuxin;
Zhang, Binyan; Liu, Xiuhui*

Acta Chim. Sinica **2020**, 78(1), 82-88

A sensitive sensor for xanthine detection is constructed based on chitosan/nitrogen doped reduced graphene oxide (CS/N-RGO). The inhibition for the formation of uric acid by febuxostat and allopurinol was researched by the electrochemical method.

Author Guide *Acta Chim. Sinica* **2020**, 78(1), 89-94

“《化学学报》2018年度最有影响力论文奖”揭晓

为推动促进国内外化学期刊发展、加强化学工作者交流,根据《化学学报》编委会决议,设立“《化学学报》XX年度最有影响力论文奖”。该奖对获奖人的国籍、居住地、单位、年龄等没有任何限制,由《化学学报》编委会根据文章年度SCI引用情况评出(参考影响因子计算规则,兼顾当年发表当年引用情况,按第n-2年至第n年发表的文章在第n年引用情况排序),奖励通信作者荣誉证书、文章第一作者荣誉证书和奖金1000元。奖励10篇左右。已获奖的论文次年不再重复奖励。

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化学学报 2017 Vol. 75 (1): 34-40

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化学学报 2017 Vol. 75 (4): 383-390

黄佳琦, 孙滢智, 王云飞, 张强
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锂硫电池先进功能隔膜的研究进展
化学学报 2017 Vol. 75 (2): 173-188

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DOI: 10.6023/A15090585
基于双间苯-32-冠-10 穴醚超分子组装体的设计与构筑
化学学报 2016 Vol. 74 (1): 9-16