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Chemical Society Reviews

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See Yi Lu, Siqi Huan, Long Bai, Orlando J. Rojas *et al.*, pp. 7363–7391. Image reproduced by permission of Ayako Takagi from *Chem. Soc. Rev.*, 2024, 53, 7363. Image credit: Ayako Takagi.



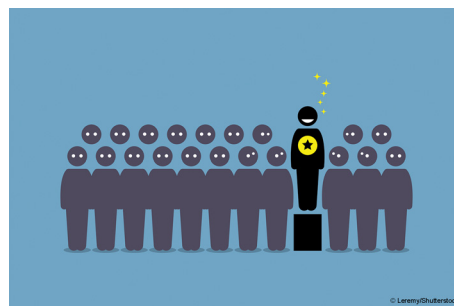
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See Hong Liu, Xiaowen Yu *et al.*, pp. 7392–7425. Image reproduced by permission of Hong Liu and Xiaowen Yu from *Chem. Soc. Rev.*, 2024, 53, 7392.

EDITORIAL

7308

Outstanding Reviewers for *Chemical Society Reviews* in 2023

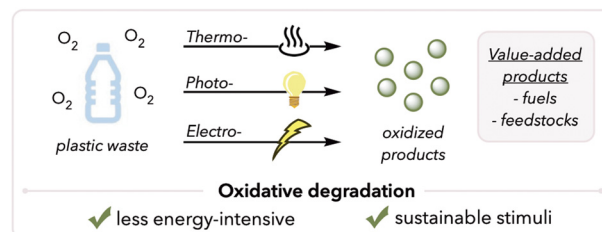


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Recent advances in oxidative degradation of plastics

Sewon Oh and Erin E. Stache*



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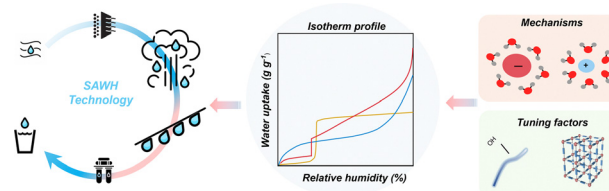


TUTORIAL REVIEWS

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Chemistries and materials for atmospheric water harvesting

Chuxin Lei, Weixin Guan, Yaxuan Zhao and Guihua Yu*

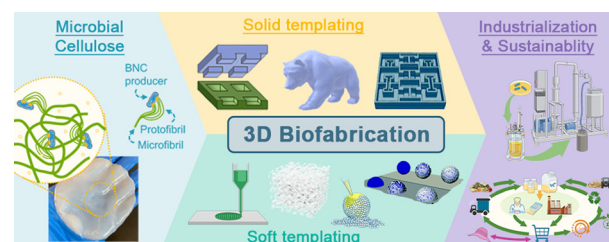


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Biofabrication with microbial cellulose: from bioadaptive designs to living materials

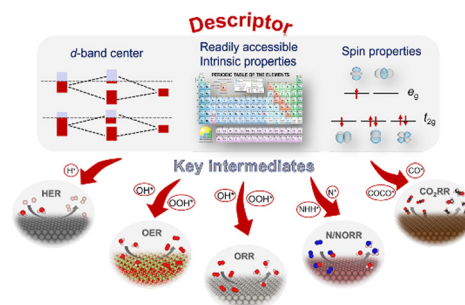
Yi Lu,* Marina Mehling, Siqi Huan,* Long Bai* and Orlando J. Rojas*



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Advancing electrocatalytic reactions through mapping key intermediates to active sites via descriptors

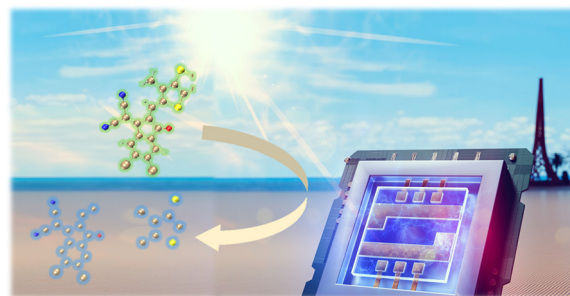
Xiaowen Sun, Rafael B. Araujo, Egon Campos dos Santos, Yuanhua Sang, Hong Liu* and Xiaowen Yu*



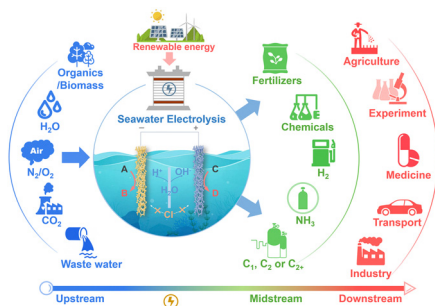
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Understanding photochemical degradation mechanisms in photoactive layer materials for organic solar cells

Jianhua Han,* Han Xu, Sri Harish Kumar Paleti, Anirudh Sharma and Derya Baran*



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Seawater electrolysis for fuels and chemicals production: fundamentals, achievements, and perspectives

Lin Chen, Chang Yu,* Junting Dong, Yingnan Han, Hongling Huang, Wenbin Li, Yafang Zhang, Xinyi Tan and Jieshan Qiu*

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Renewable biomass-based aerogels: from structural design to functional regulation

Linfeng Chen, Xiaoxiao Yu, Mengyue Gao, Chengjian Xu, Junyan Zhang, Xinhai Zhang,* Meifang Zhu and Yanhua Cheng*

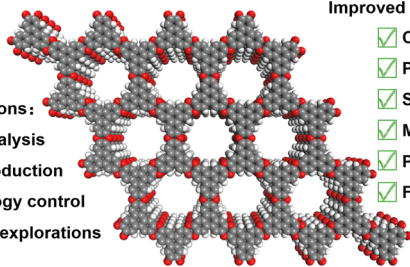
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Catalyst and auxiliaries development in the synthesis of COFs

Improved properties:

- Crystallinity
- Porosity
- Stability
- Morphology
- Processability
- Functionality

Applications:
Photocatalysis
Scale production
Morphology control
Methods explorations

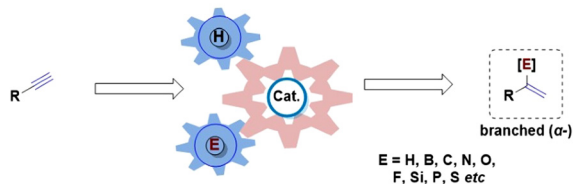


The development of catalysts and auxiliaries for the synthesis of covalent organic frameworks

Wei Zhao, Qiang Zhu, Xiaofeng Wu and Dan Zhao*

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Metal-catalyzed Markovnikov-type selective hydrofunctionalization of terminal alkynes:



Metal-catalyzed Markovnikov-type selective hydrofunctionalization of terminal alkynes

Jieping Chen, Wen-Ting Wei, Zhuocheng Li and Zhan Lu*



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Fluorescent probes for targeting the Golgi apparatus: design strategies and applications

Silin Xu, Kai-Cheng Yan, Zhi-Hong Xu,* Yuan Wang* and Tony D. James*

