

# Sustainable Energy & Fuels

Interdisciplinary research for the development of sustainable energy technologies

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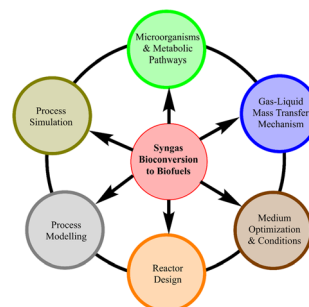
**Cover**  
See Kazuhiko Maeda *et al.*, pp. 36–42. Image reproduced by permission of Kazuhiko Maeda from *Sustainable Energy Fuels*, 2024, 8, 36.

## REVIEW

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### Syngas conversion to biofuels and biochemicals: a review of process engineering and mechanisms

Habiba Khalid, Farrukh Raza Amin, Lian Gao, Limei Chen, Wuxi Chen, Sundus Javed and Demao Li\*

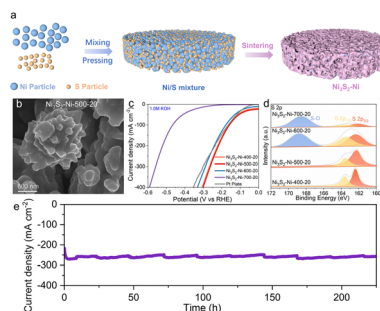


## COMMUNICATION

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### An efficient Ni<sub>3</sub>S<sub>2</sub>-Ni electrode constructed by a one-step powder metallurgy approach for the hydrogen evolution reaction

Yang Zhao, Xiaoqian Shi, Bin Zhang, Shizhong Wei,\* Jiping Ma, Jianbin Lai, Guangmin Zhou and Huan Pang



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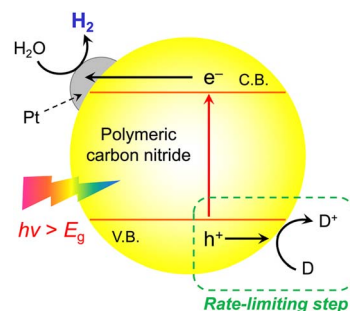
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Fundamental questions  
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## A rational guide to improve the activity of a hydrogen-evolving polymeric carbon nitride photocatalyst

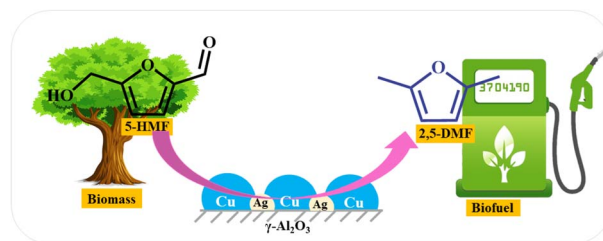
Kazuhiko Maeda,\* Tomoharu Maeda, Chomponoot Suppaso, Shunta Nishioka, Yoshinobu Kamakura, Shuhei Yasuda and Toshiyuki Yokoi



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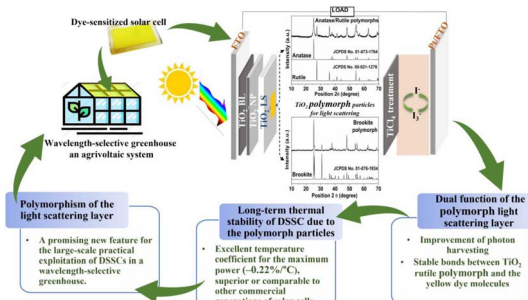
D. Dhana Lakshmi, Yogita, B. Srinivasa Rao and N. Lingaiah\*



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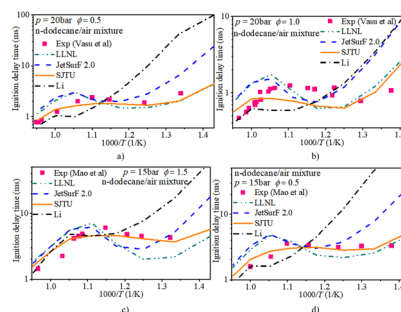
Daniel Ursu, Melinda Vajda, Elisei Ilieș, Radu Ricman, Magdalena Marinca, Szilard Bularka, Marinela Miclău\* and Aurel Gontean\*



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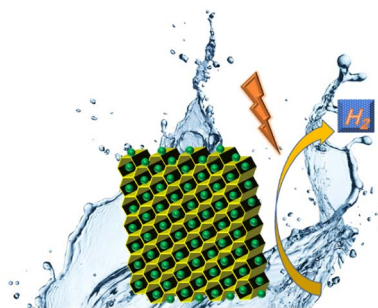
## Auto-ignition and reaction kinetic characteristics of hydrogen-enriched *n*-dodecane mixtures under engine-like thermodynamic conditions

Zhihao Yang, Changhui Zhai,\* Zhen Gong and Yejian Qian





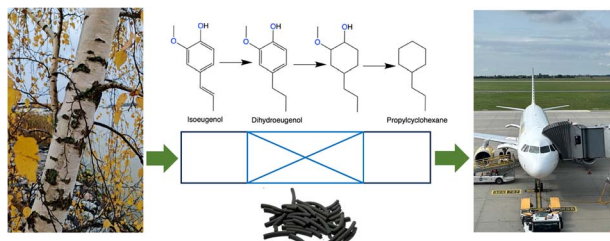
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### Honeycomb-like hollow carbon loaded with ruthenium nanoparticles as high-performance HER electrocatalysts

Peng-Cheng Ji, Yang Teng, Hong-Cheng Li, Ming-Yun Guan and Hai-Lang Jia\*

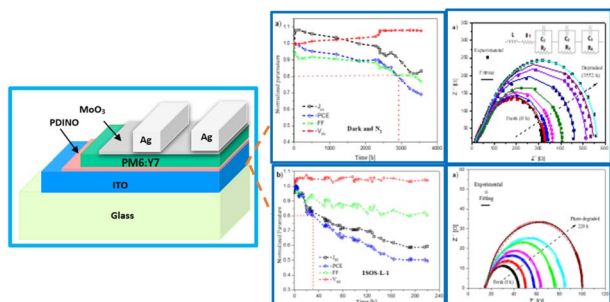
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Mark E. Martinez-Klimov,\* Olha Yevdokimova, Päivi Mäki-Arvela, Jennifer Cueto, Nataliya Shcherban, Zuzana Vajglová, Kari Eränen and Dmitry Yu. Murzin\*

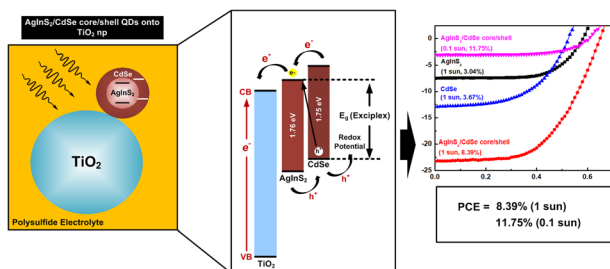
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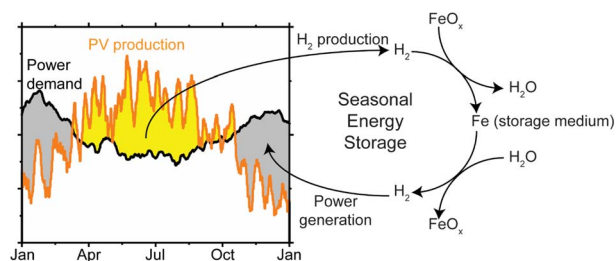
Siti Utari Rahayu, Yu-Rou Wang, Jen-Bin Shi and Ming-Way Lee\*



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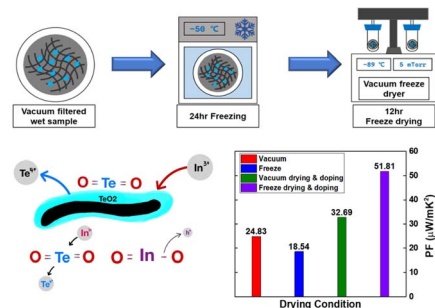
Samuel P. Heiniger, Zhiyuan Fan, Urs B. Lustenberger and Wendelin J. Stark\*



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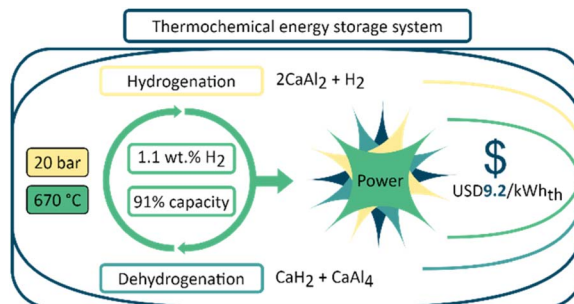
In Ho Kim and Yong Jin Jeong\*



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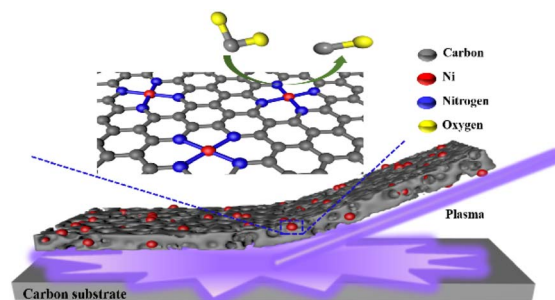
Lucie Desage, Terry D. Humphries,\* Mark Paskevicius and Craig E. Buckley

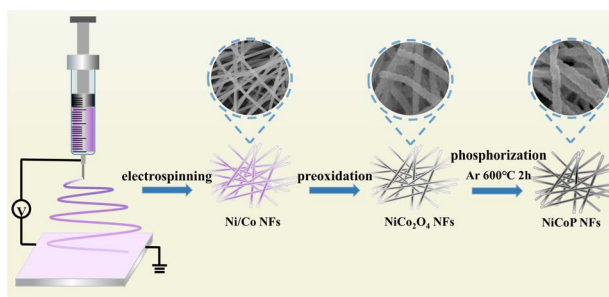


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### Ni single-atom catalysts for highly efficient electrocatalytic CO<sub>2</sub> reduction: hierarchical porous carbon as a support and plasma modification

Qiulin Ye, Yaqi Peng,\* Dongdong Wang, Jiabao Lv, Yaoyue Yang, Yue Liu, Zhifu Qi, Songqiang Zhu, Chunliang Ge, Yan Yang, Angjian Wu\* and Shengyong Lu\*





## One-dimensional nickel–cobalt bimetallic phosphide nanostructures for the oxygen evolution reaction

Yue Wang, Xin Chang, Zexing Huang, Jiahui Fan, Lu Li\* and Mingyi Zhang\*

