# Sustainable Energy & Fuels

Interdisciplinary research for the development of sustainable energy technologies

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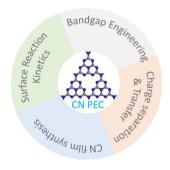
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# Recent progress of graphitic carbon nitride films and their application in photoelectrochemical water splitting

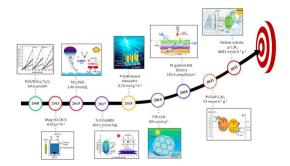
Suqin Wu, Quanming Peng, Wenjie Deng, Fengmei Zhi, Mao He, Mingzhan Wang, Jiaqi Wang, Guiming Peng\* and Shaowen Cao



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Manova Santhosh Yesupatham, Ashil Augustin, Nithish Agamendran, Brahmari Honnappa, Mariappan Shanmugam, Prince J. J. Sagayaraj, G. Thennarasu, N. Clament Sagaya Selvam\* and Karthikeyan Sekar\*



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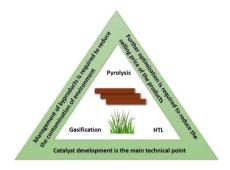


# **REVIEWS**

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# A review on thermochemical based biorefinery catalyst development progress

Mortaza Gholizadeh,\* Cristina Castro, Sandra Meca Fabrega\* and Frederic Clarens\*



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Qin-Tao Liao, Si-Jie Guo, Mu-Yao Qi, Si-Dong Zhang, Pei-Zhong Ma, Jin-Yang Li, An-Min Cao\* and Li-Jun Wan\*



#### **PERSPECTIVE**

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# Nanosponges for hydrogen evolution reaction: current trends and future perspectives

Navid Rabiee\* and Siavash Iravani\*

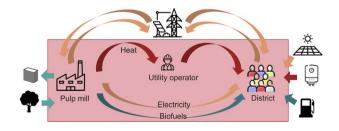


# **PAPERS**

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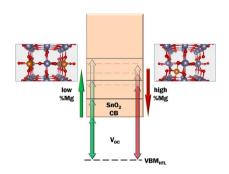
# Closing the balance - on the role of integrating biorefineries in the future energy system

Julia Granacher,\* Rafael Castro-Amoedo, Jonas Schnidrig and François Maréchal



# **PAPERS**

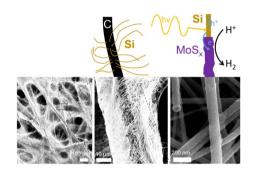
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# The role of Mg dopant concentration in tuning the performance of the SnO<sub>2</sub> electron transport layer in perovskite solar cells

Gennaro Vincenzo Sannino, Adriana Pecoraro, Pasqualino Maddalena, Annalisa Bruno, Paola Delli Veneri, Michele Pavone\* and Ana Belén Muñoz-García\*

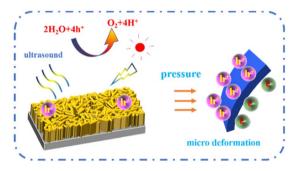
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# Porous silicon-nanowire-based electrode for the photoelectrocatalytic production of hydrogen

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Jingke You, Xingfei Chen, Zhifeng Liu,\* Zhengang Guo and Mengnan Ruan

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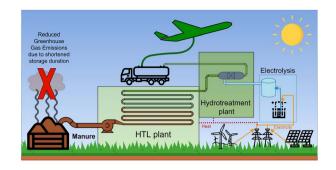
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# Life-cycle assessment of renewable fuel production via hydrothermal liquefaction of manure in Germany

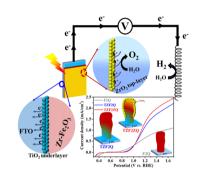
Leonard Moser, Benjamin W. Portner, Christina Penke, Kathrin Ebner and Valentin Batteiger



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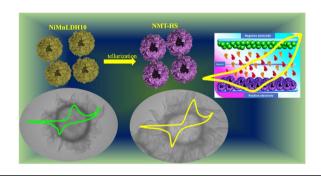
Jun Beom Hwang, Mahadeo A. Mahadik, Periyasamy Anushkkaran, Sun Hee Choi, Weon-Sik Chae, Manish Kumar, H. M. Pathan, Hyun Hwi Lee\* and Jum Suk Jang\*



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# Unveiling the potential of nanosheet-based NiTe<sub>2</sub>@MnTe hollow nanospheres in hybrid supercapacitor technology

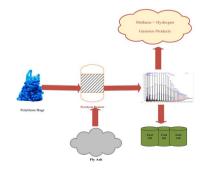
Dorsa Dehghanpour Farashah, Fatemeh Beigloo, Akbar Mohammadi Zardkhoshoui\* and Saied Saeed Hosseiny Davarani\*



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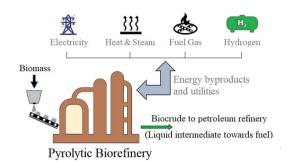
# Conversion of low-density polyethylene plastic waste into valuable fuels using fly ash as a catalyst

Asif Khan, Naseem Iqbal,\* Tayyaba Noor, Neelam Zaman and Shoaib Raza Khan



# **PAPERS**

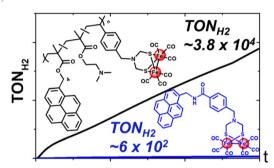
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# Assessment of location and energy utility options for the implementation of pyrolytic biocrude production

Abhijit Dutta,\* Michael S. Talmadge, Eric C. D. Tan and Joshua A. Schaidle

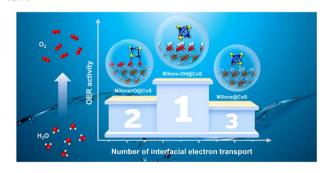
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# Synthetic styrene-based bioinspired model of the [FeFe]-hydrogenase active site for electrocatalytic hydrogen evolution

Afridi Zamader, Bertrand Reuillard,\* Julien Pérard, Laurent Billon, Gustav Berggren\* and Vincent Artero

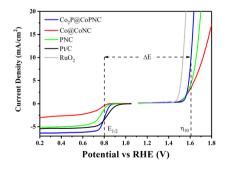
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# Modulated interfacial electron transfer of MXene-T<sub>x</sub>@CoS for the oxygen evolution reaction

Xinying Du, Xiaoyun Zhang, Shifan Zhu, Yixue Xu and Yuqiao Wang\*

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# Facile synthesis of CoPNC-encapsulated Co<sub>2</sub>P nanoparticles as a bifunctional electrocatalyst for Zn-air batteries

Shiliu Yang,\* Linyi Ren, Shihang Wu, Zijie Huang, Wenting Liu, Qiyong Zhu\* and Yijun Wei

# CORRECTION

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Correction: A polypyrrole derived nitrogen doped porous carbon support for an atomically dispersed Mn electrocatalyst for the oxygen reduction reaction

Sanjit Kumar Parida,\* Tulasi Barik and Hrudananda Jena\*