

# Sustainable Energy & Fuels

Interdisciplinary research for the development of sustainable energy technologies

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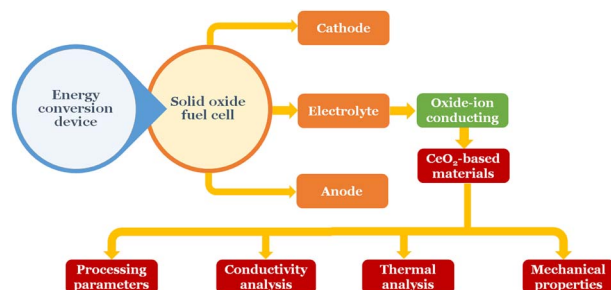
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## REVIEW

3981

### Cerium oxide-based electrolytes for low- and intermediate-temperature solid oxide fuel cells: state of the art, challenges and future prospects

Paramvir Kaur and K. Singh\*

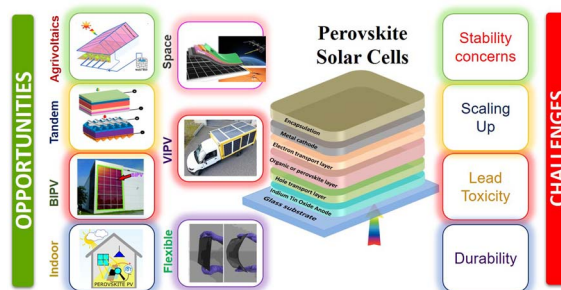


## PERSPECTIVES

3999

### Commercialization of perovskite solar cells: opportunities and challenges

Ankita Sengupta, Mohammad Adil Afroz, Bhavna Sharma, Shivani Choudhary, Namrata Pant, Yogesh Gulia, Narendra Pai Kalapparambath Rajendra Pai, Dechan Angmo and Soumitra Satapathi\*



# Environmental Science: Atmospheres

GOLD  
OPEN  
ACCESS

Connecting communities  
and inspiring new ideas

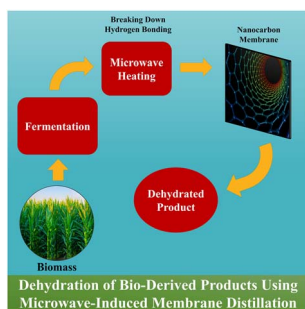
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Fundamental questions  
Elemental answers





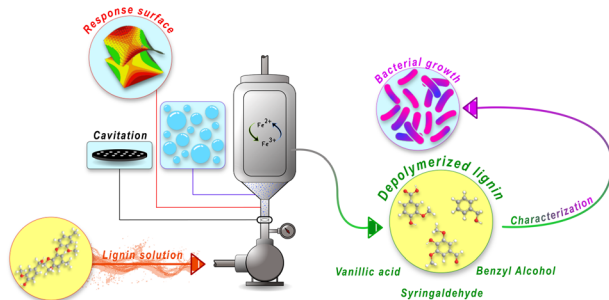
4068



### Dehydration of highly viscous polyol (1,2,4-butanetriol) using microwave-induced sweep gas membrane distillation (MIMD) on nanocarbon-immobilized membranes

Mitun Chandra Bhoumick, Benjamin G. Harvey, Derek D. Zhang and Somenath Mitra\*

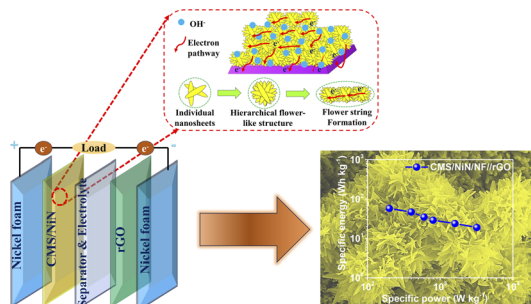
4077



### Kraft lignin depolymerization by the Fenton process assisted by hydrodynamic cavitation

Lucas Ramos, Giovani Maltempi-Mendes, Julio C. Santos and Anuj Kumar Chandel\*

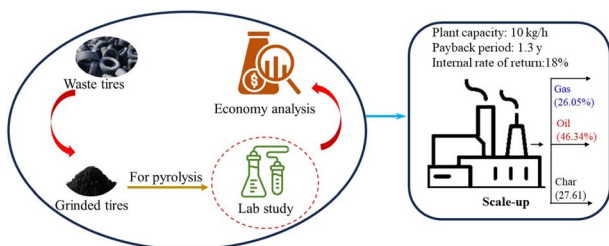
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### Elucidating the synergistic benefits of the ternary metal components in a cobalt–molybdenum hybrid sulfide–nickel nitride composite as supercapacitor electrodes

Shalakra Saha, Chandra Shekhar Sharma,\* Nishar Hameed and Nisa Salim

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### An integrated approach to waste tire pyrolysis for value-added products: process optimization and a comprehensive economic study for scalability

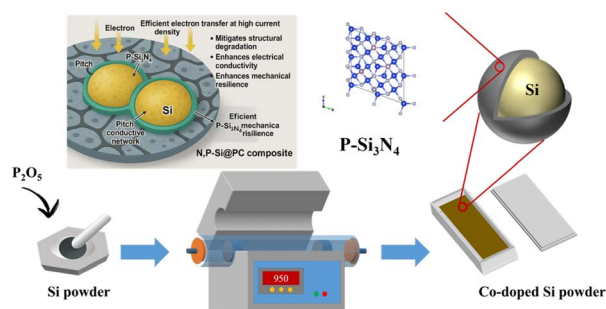
Uma Sankar Behera, Sourav Poddar\* and Hun-Soo Byun\*



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## Gradient-coated P-doped Si<sub>3</sub>N<sub>4</sub> with dual functions for silicon anodes: stress buffering and charge transport enhancement

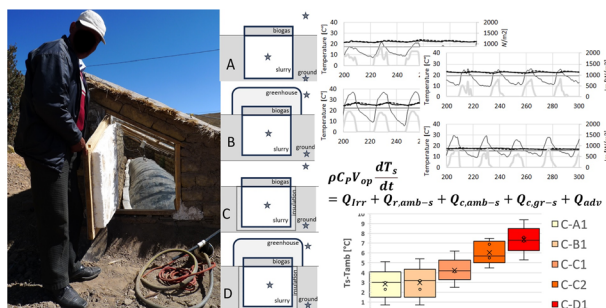
Yi Zhong, Bichen Yu, Lanqing Xu, Yajing Huang, Yongping Zheng,\* Jiaxing Li\* and Zhigao Huang



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## Integration of solar passive heating strategies in low-cost biogas plants

Juan Jaramillo, Liliana Castro, Humberto Escalante and Jaime Marti-Herrero\*



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## Symbiotic energy-sensing wind generator enabled AI for smart roads

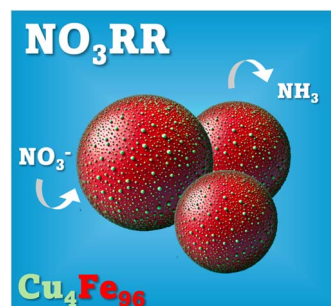
Keqi Wu, Chengliang Fan, Minfeng Tang, Hongyu Chen, Yajia Pan, Dabing Luo and Zutao Zhang\*



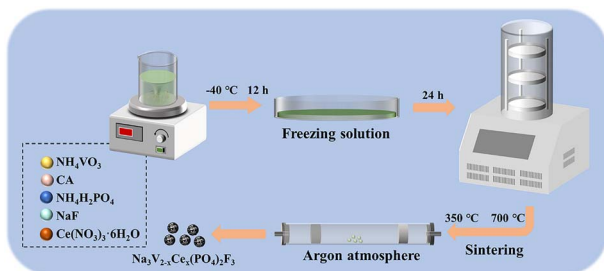
4164

## Nitrate reduction to ammonia using Cu-Fe nanoparticles

Ido Dan, Paz Stein, Dyuti Bandyopadhyay, Yan Tetarevsky, Alevtina Neyman, Shir Abramovich, Rotem Geva and Maya Bar Sadan\*



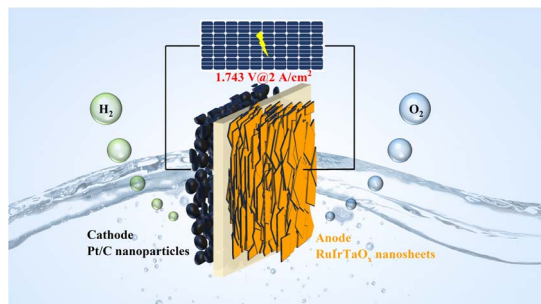
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### Ce-doped $\text{Na}_3\text{V}_{1.9}\text{Ce}_{0.1}(\text{PO}_4)_2\text{F}_3$ as a cathode material for high-performance sodium-ion batteries

Ruihan Guan, Xianguang Zeng,\* Xuesong Zhou, Yingyou Hu, Chengyan Wen, Dan Zhang, Lu Zeng and Yong Gong

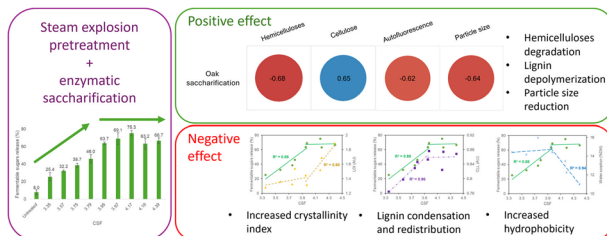
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### Electronic structure regulation of $\text{RuIrTaO}_x$ induces highly efficient acidic OER

Wenou Bai,\* Ailing Yan, Yucan Dong, Jingai Wang, Bo Jia\* and Qing Feng

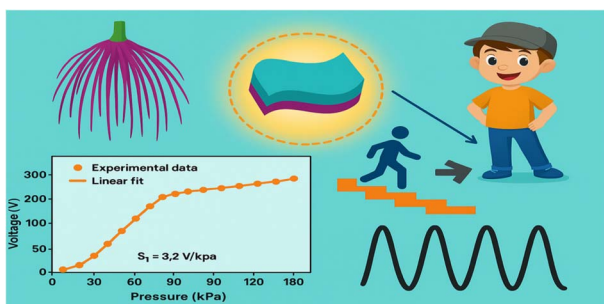
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### Understanding how physicochemical features from steam exploded wood affect enzymatic saccharification efficiency for bioethanol production

Edwige Audibert, Adriana Quintero, Frédéric Martel, Gabriel Paës\* and Caroline Rémond\*

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### A biowaste material-based low-cost environment-friendly triboelectric nanogenerator for self-powered sensing application

Sayed Muksedul Haque Pias, Md. Nurnabi, Rahat Hossain, Md. Monjarul Alam, Kamaruzzaman and S M Sohel Rana\*

