

Sustainable Energy & Fuels

Interdisciplinary research for the development of sustainable energy technologies

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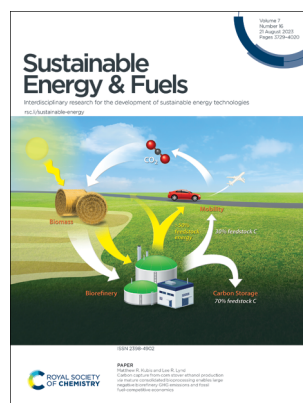
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See Matthew R. Kubis and Lee R. Lynd, pp. 3842–3852. Image reproduced by permission of Lee R. Lynd from *Sustainable Energy Fuels*, 2023, 7, 3842.

EDITORIAL

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Harnessing the power of biorefining: paving the way for sustainable fuels and chemicals

George W. Huber, Muxina Konarova, Jason Y. C. Lim and Karen Wilson*

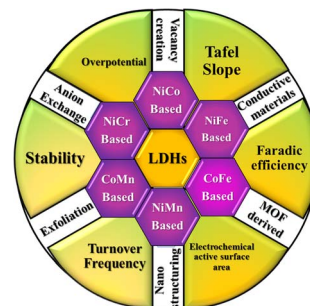


REVIEWS

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A review on consequences of flexible layered double hydroxide-based electrodes: fabrication and water splitting application

Sreenivasan Nagappan, Seungmin Yang, Arindam Adhikari, Rajkumar Patel* and Subrata Kundu*



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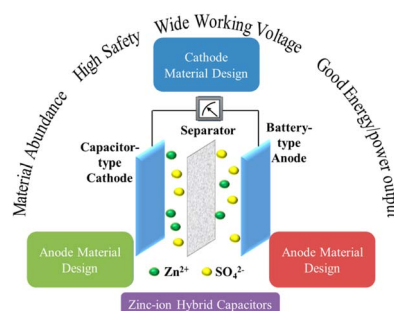


REVIEWS

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Recent developments in zinc metal anodes, cathodes, and electrolytes for zinc-ion hybrid capacitors

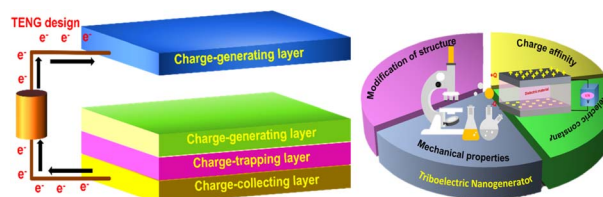
Meghali Devi, Brindha Moorthy and Ranjith Thangavel*



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Applications of multifunctional triboelectric nanogenerator (TENG) devices: materials and prospects

Prabhakar Yadav, Kuldeep Sahay,* Arpit Verma, D. K. Maurya and B. C. Yadav*

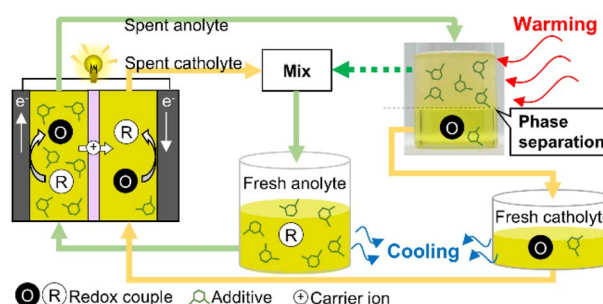


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Flow battery recharging by thermoresponsive liquid-liquid phase separation

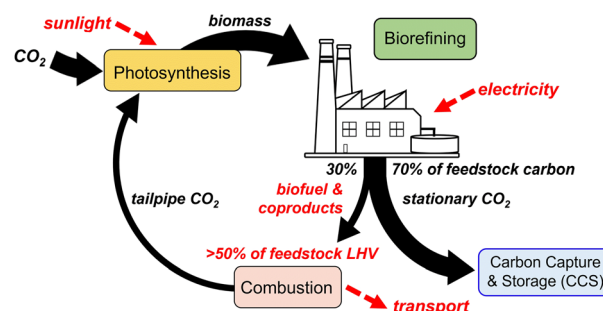
Yohei Matsui,* Yuki Maeda, Makoto Kawase, Takahiro Suzuki and Shohji Tushima



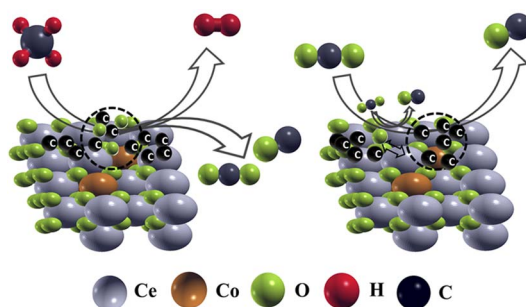
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Carbon capture from corn stover ethanol production via mature consolidated bioprocessing enables large negative biorefinery GHG emissions and fossil fuel-competitive economics

Matthew R. Kubis and Lee R. Lynd*



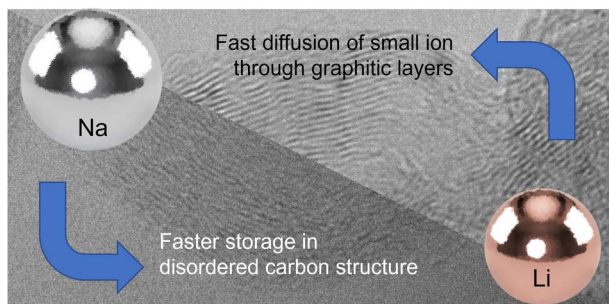
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Ni/Co in and on CeO₂: a comparative study on the dry reforming reaction

Pradeep Kumar Yadav, Kalyani Patrikar, Anirban Mondal and Sudhanshu Sharma*

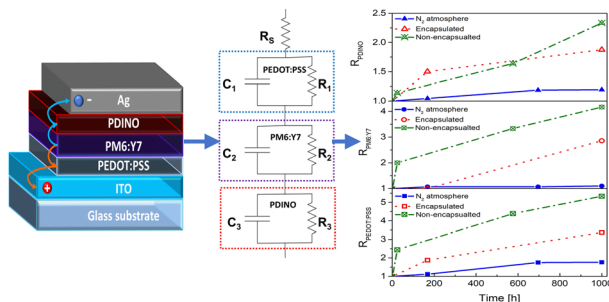
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Influence of structural modifications on the alkali ion storage properties of carbon black in hybrid ion capacitor negative electrodes

Johannes Schenk, Desirée Leistenschneider, Stephanie Hoepfner, Ulrich S. Schubert, Konstantin Schutjajew* and Martin Oschatz*

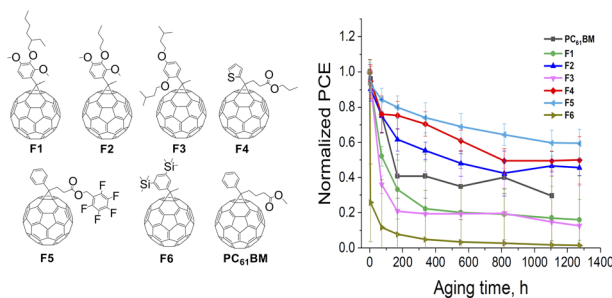
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Understanding the role of interfacial layers in the photostability of PM6:Y7-based organic solar cells under different degradation conditions

Magaly Ramírez-Como, Enas Moustafa, Mohamed Samir, Alfonsina Abat Amelenan Torimtubeun, José G. Sánchez, Josep Pallarès* and Lluís F. Marsal*

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What defines the perovskite solar cell efficiency and stability: fullerene-based ETL structure or film morphology?

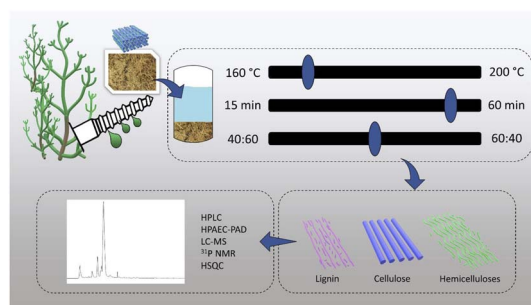
Mohamed M. Elnaggar, Alexander V. Mumyatov, Nikita A. Emelianov, Lavrenty G. Gutsev, Victoria V. Ozerova, Ivan V. Fedyanin, Yulia V. Nelyubina, Sergey I. Troyanov, Bala R. Ramachandran and Pavel A. Troshin*



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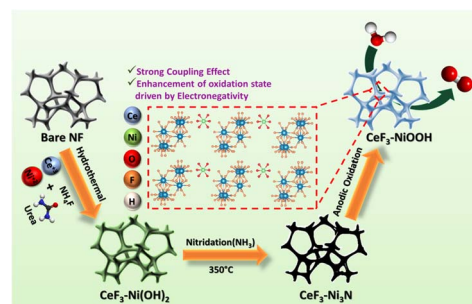
Maxwel Monção, Petter Paulsen Thoresen, Tobias Wretborn, Heiko Lange, Ulrika Rova, Paul Christakopoulos and Leonidas Matsakas*



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Strong coupling effect induced surface reconstruction of $\text{CeF}_3\text{-Ni}_3\text{N}$ to form $\text{CeF}_3\text{-NiOOH}$ for the oxygen evolution reaction

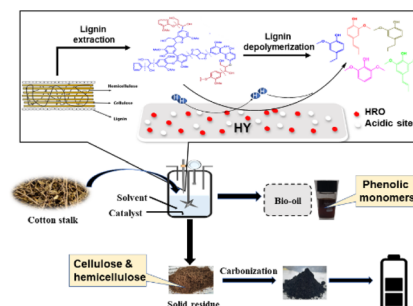
Rajdeep Kaur, Ashish Gaur, Jatin Sharma, Vikas Pundir, Aashi and Vivek Bagchi*



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Lignin-first biorefinery approach for the valorization of cotton stalks to phenolic monomers

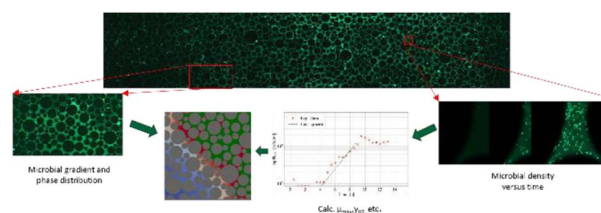
Meenu Jindal, Adarsh Kumar, Shivam Rawat and Bhaskar Thallada*



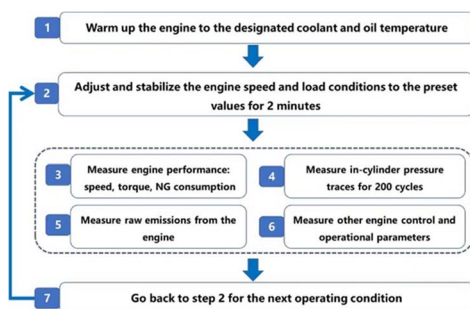
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Experimental and numerical investigation of microbial growth in two-phase saturated porous media at the pore-scale

Gion Strobel,* Jan Zawallich,* Birger Hagemann, Leonhard Ganzer and Olaf Ippisch



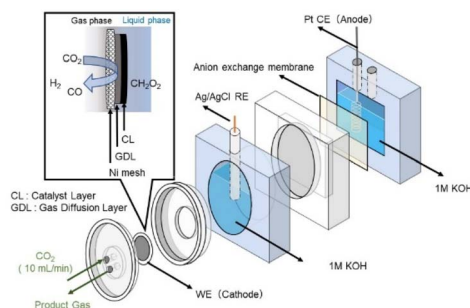
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Effects of piston shapes and swirl ratios on combustion and emissions of a micro diesel pilot-ignition natural gas engine

Jianqin Fu, Chao Li, Feng Zhou,* Jun Shu* and Jingping Liu

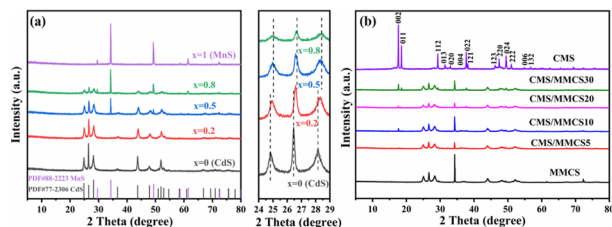
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Enhancement of formic acid formation by nitrogen-doped graphene oxide nanosheets decorated with Sn nanoparticles in electrochemical CO₂ reduction

Yuma Tano, Muhammad Sohail Ahmad,* Yuya Watase, Tatsuki Tsugawa, Satoko Takase, Yusuke Inomata, Kazuto Hatakeyama, Shintaro Ida, Quitain Armando, Youichi Shimizu and Tetsuya Kida*

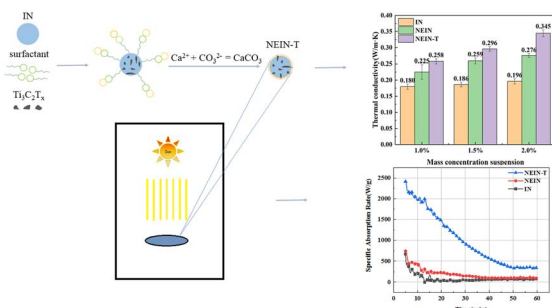
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MnS/Mn_{0.5}Cd_{0.5}S nanorods modified with Cu₂MoS₄ nanoplates for efficient photocatalytic hydrogen evolution

Jingjing Jiang, Chao Liu, Xiaolong Fang* and Fengjun Zhang

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Enhanced thermal conductivity and photothermal conversion efficiency of MXene-doped sugar alcohol nanocapsules for medium-temperature solar utilization

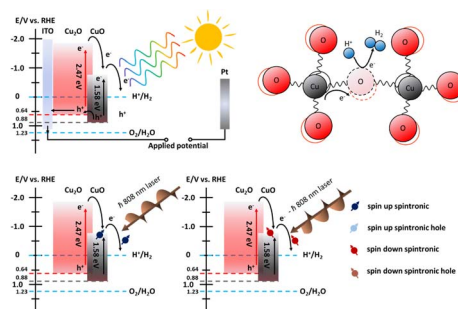
Yuanhong Li, Songping Mo,* Junhao Chen, Bo Xiao, Lisi Jia and Ying Chen



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Spintronic filter via p-typed polaron state in photoelectron conversion integrating devices

Yi-Sheng Lai,* Dao-Jing Huang, Xiu-Xuan Zhang and Yen-Hsun Su



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Gradient boosting machine for performance and emission investigation of diesel engine fueled with pyrolytic oil–biodiesel and 2-EHN additive

Fatih Okumuş,* Halil İbrahim Sönmez, Aykut Safa, Cenk Kaya and Görkem Kökkülünk

