

Sustainable Energy & Fuels

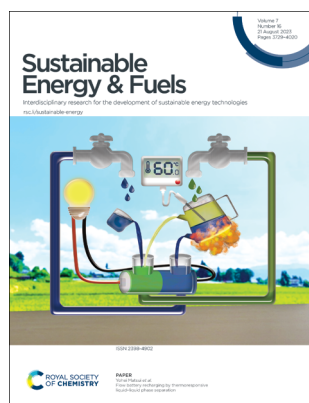
Interdisciplinary research for the development of sustainable energy technologies

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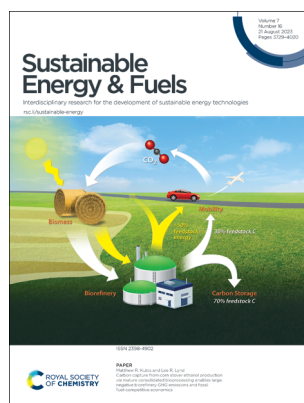
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EDITORIAL

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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*

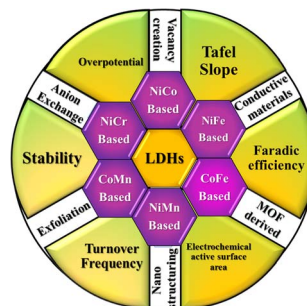


REVIEWS

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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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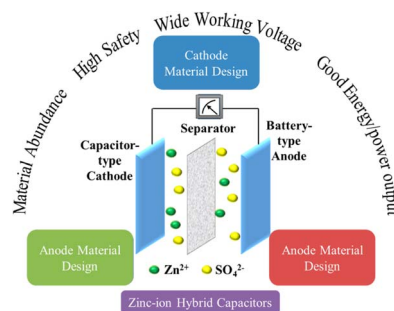


REVIEWS

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

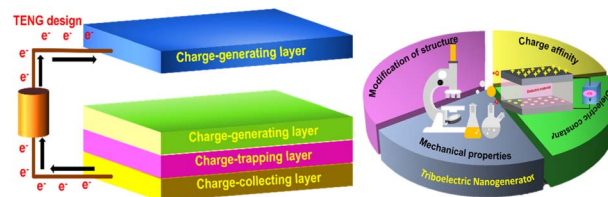
Meghali Devi, Brindha Moorthy and Ranjith Thangavel*



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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*

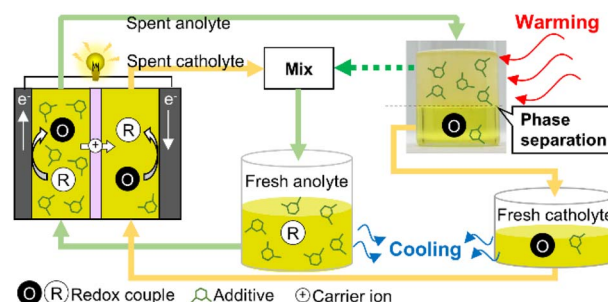


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Flow battery recharging by thermoresponsive liquid–liquid phase separation

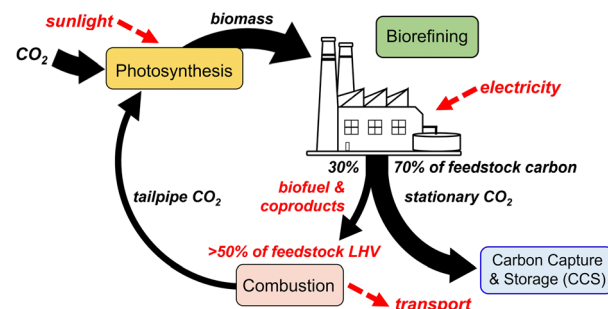
Yohei Matsui,* Yuki Maeda, Makoto Kawase, Takahiro Suzuki and Shohji Tsushima



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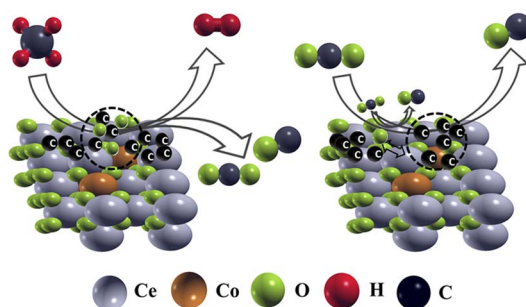
Carbon capture from corn stover ethanol production via mature consolidated bioprocessing enables large negative biorefinery GHG emissions and fossil fuel-competitive economics

Matthew R. Kubis and Lee R. Lynd*



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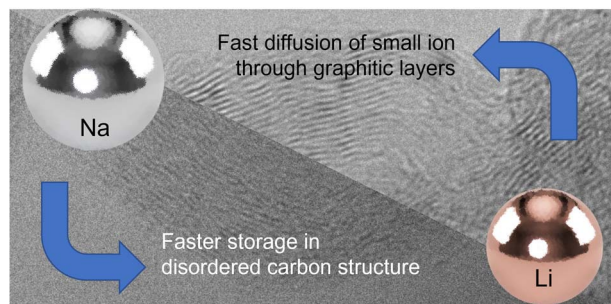
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Ni/Co in and on CeO₂: a comparative study on the dry reforming reaction

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

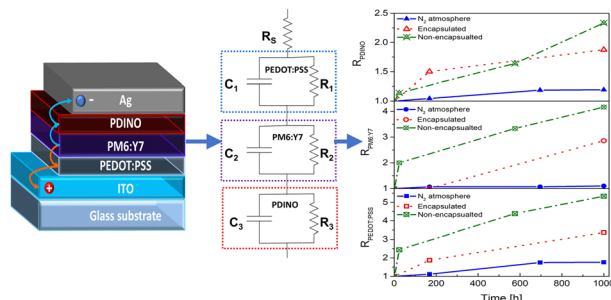
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Influence of structural modifications on the alkali ion storage properties of carbon black in hybrid ion capacitor negative electrodes

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

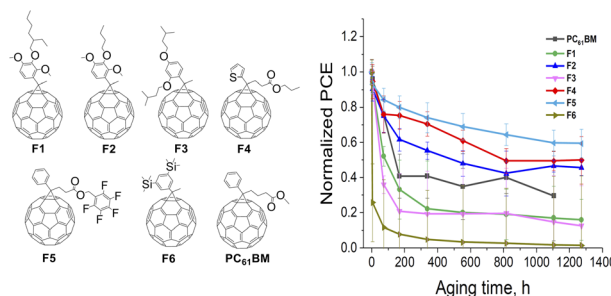
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Understanding the role of interfacial layers in the photostability of PM6:Y7-based organic solar cells under different degradation conditions

Magaly Ramírez-Como, Enas Moustafa, Mohamed Samir, Alfonsina Abat Amelenan Torimtumun, 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?

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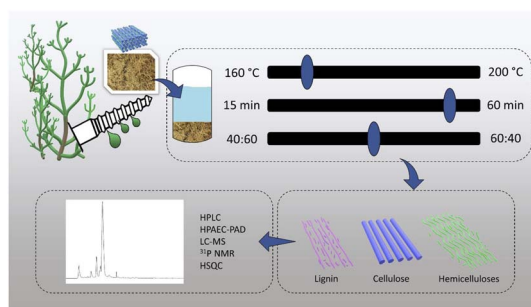


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A novel biorefinery concept based on marginally used halophyte biomass

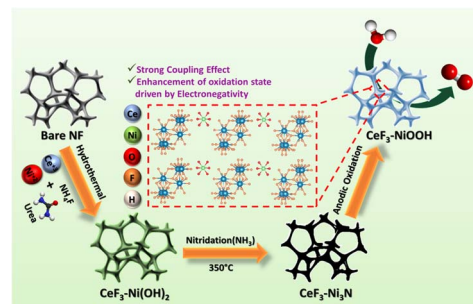
Maxwel Monção, Petter Paulsen Thoresen, Tobias Wretborn, Heiko Lange, Ulrika Rova, Paul Christakopoulos and Leonidas Matsakas*



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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

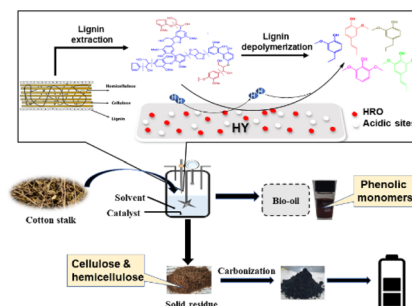
Rajdeep Kaur, Ashish Gaur, Jatin Sharma, Vikas Pundir, Aashi and Vivek Bagchi*



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

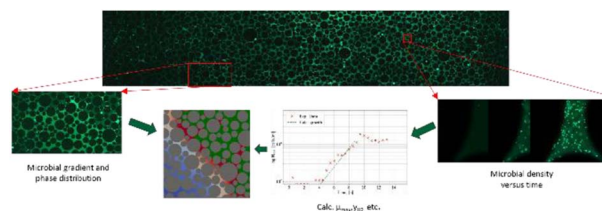
Meenu Jindal, Adarsh Kumar, Shivam Rawat and Bhaskar Thallada*



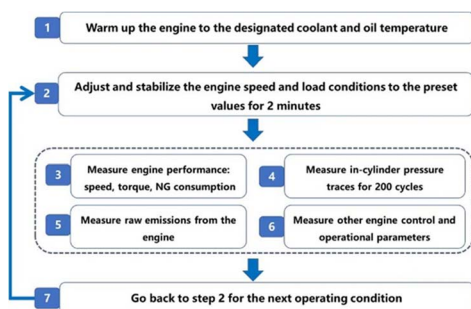
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Experimental and numerical investigation of microbial growth in two-phase saturated porous media at the pore-scale

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



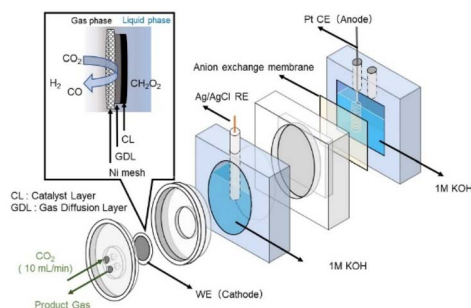
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Effects of piston shapes and swirl ratios on combustion and emissions of a micro diesel pilot-ignition natural gas engine

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

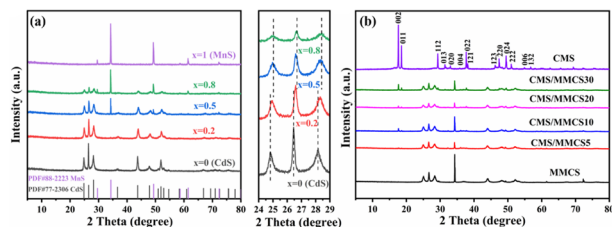
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Enhancement of formic acid formation by nitrogen-doped graphene oxide nanosheets decorated with Sn nanoparticles in electrochemical CO₂ reduction

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

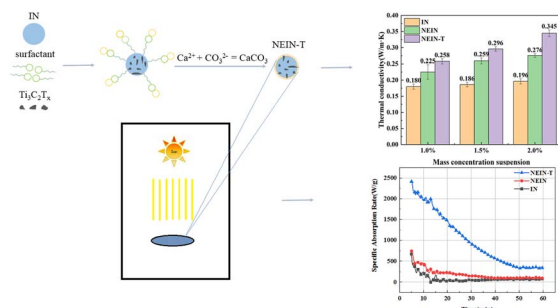
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MnS/Mn_{0.5}Cd_{0.5}S nanorods modified with Cu₂MoS₄ nanoplates for efficient photocatalytic hydrogen evolution

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

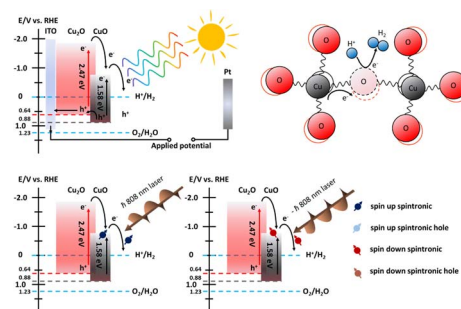


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Spintronic filter via p-typed polaron state in photoelectron conversion integrating devices

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 Gökem Kökkülünk

