

Sustainable Energy & Fuels

Interdisciplinary research for the development of sustainable energy technologies

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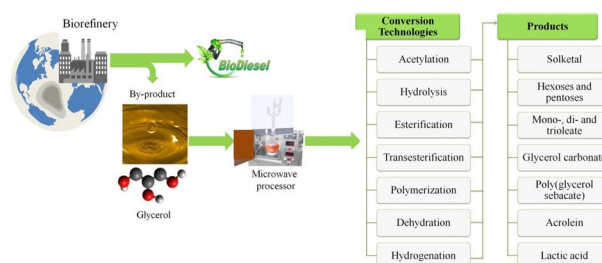
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REVIEW

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Glycerol and microwave-assisted catalysis: recent progress in batch and flow devices

Ana Alice Farias da Costa, Alex de Nazaré de Oliveira, Roberto Esposito, Amélie Auvigne, Christophe Len,^{*} Rafael Luque, Renata Coelho Rodrigues Noronha and Luís Adriano Santos do Nascimento^{*}

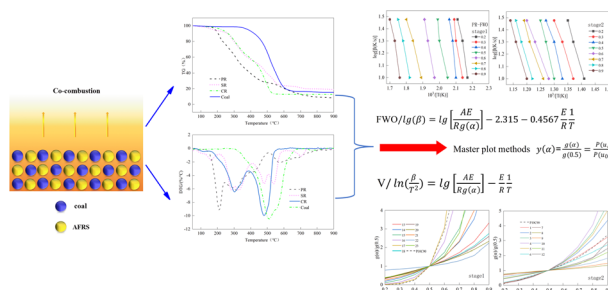


COMMUNICATION

1793

Co-combustion characteristics and kinetic analysis of three different wastes of antibiotic fermentation and coal

Guanglei Yuan, Ruru Liang, Erhong Duan and Renping Liu^{*}



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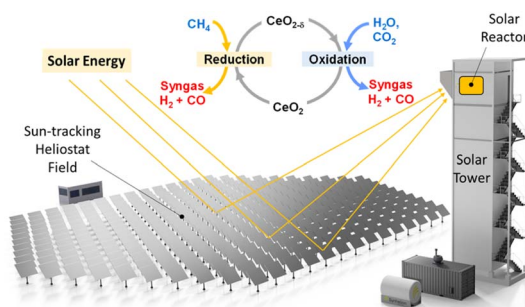


PAPERS

1804

Methane dry reforming via a ceria-based redox cycle in a concentrating solar tower

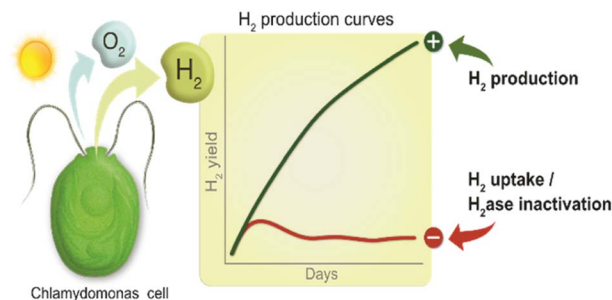
Mario Zuber, Moritz Patriarca, Simon Ackermann, Philipp Furler, Ricardo Conceição, José Gonzalez-Aguilar, Manuel Romero and Aldo Steinfeld*



1818

Balancing photosynthesis, O₂ consumption, and H₂ recycling for sustained H₂ photoproduction in pulse-illuminated algal cultures

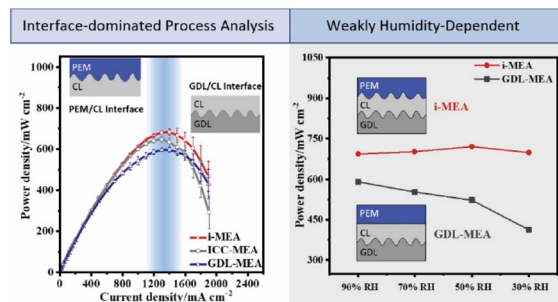
Sindhuja Vajravel, Yagut Allahverdiyeva* and Sergey Kosourov*



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Designing a membrane electrode assembly for weakly humidity-dependent proton exchange membrane fuel cells

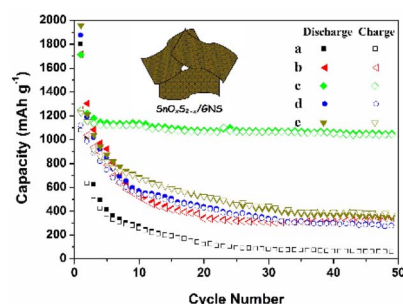
Kangwei Qiao, Huibing Liu, Kui Ren, Panpan Sun, Liu Yang, Shitao Wang* and Dapeng Cao*



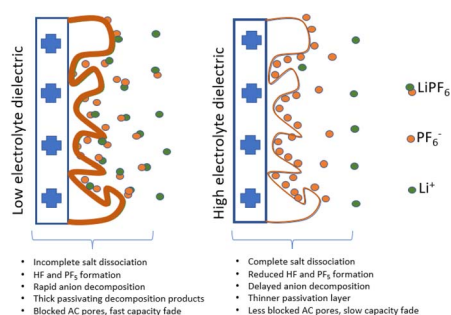
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SnO_xS_{2-x}/GNS nanocomposites for reversible and high-capacity lithium-ion batteries

Ke Yang, Changyu Yan, Xuejiao Liu, Qihan Chen, Boxu Dong, Hongran Guo and Xuefeng Qian*



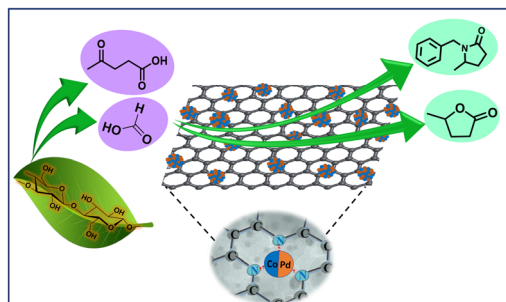
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Enhanced activated carbon lithium-ion capacitor electrochemical stability through electrolyte dielectric optimisation

Obinna Egwu Eleri, Julie Pires, Frederik Thorbjørn Huld, Song Lu, Philipp Schweigart, Ann Mari Svensson, Fengliu Lou* and Zhixin Yu*

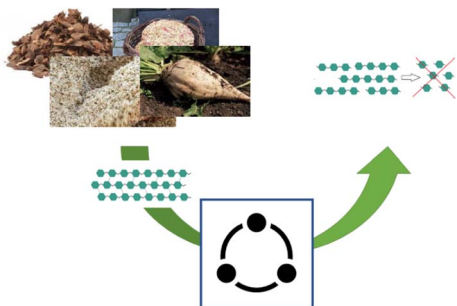
1855



A CoPd nanoalloy embedded N-doped porous carbon catalyst for the selective reduction and reductive amination of levulinic acid using formic acid in water

Ashish Kumar Kar, Arzoo Chauhan and Rajendra Srivastava*

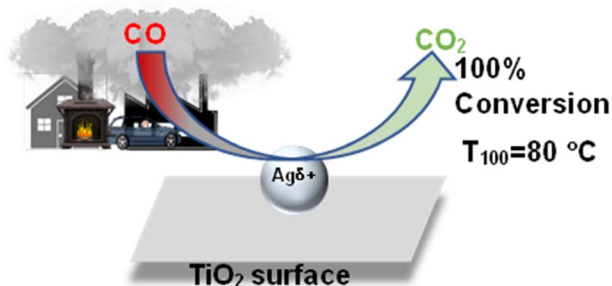
1870



Mechanocatalytic partial depolymerization of lignocellulosic feedstock towards oligomeric glycans

G. Meyer, M. Wolf, S. Hanstein and M. Rose*

1878



A comparison of dry and wet condition CO oxidation activity of a supported silver catalyst at low temperature

Maya Chatterjee, Norihito Hiyoshi, Takashi Fukuda and Naoki Mimura*

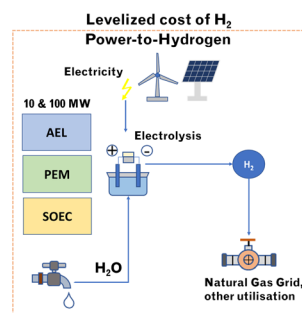


PAPERS

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Economic analysis of hydrogen production in Germany with a focus on green hydrogen, considering all three major water electrolysis technologies

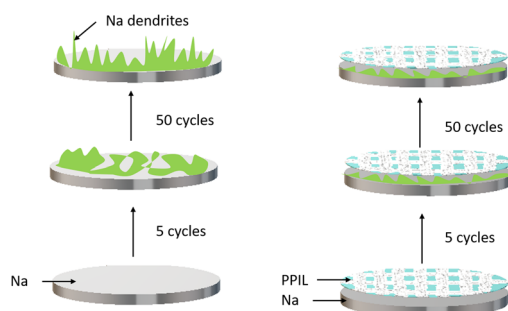
Niklas Gerloff*



1908

Patterned interlayer enables a highly stable and reversible sodium metal anode for sodium-metal batteries

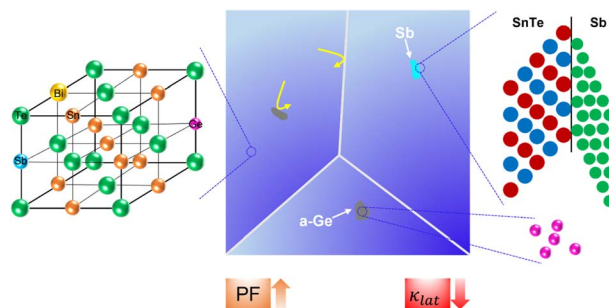
Chhail Bihari Soni, Sungjemmenla, S. K. Vineeth, C. Sanjay Kumar and Vipin Kumar*



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Pushing the limit of synergy in SnTe-based thermoelectric materials leading to an ultra-low lattice thermal conductivity and enhanced ZT

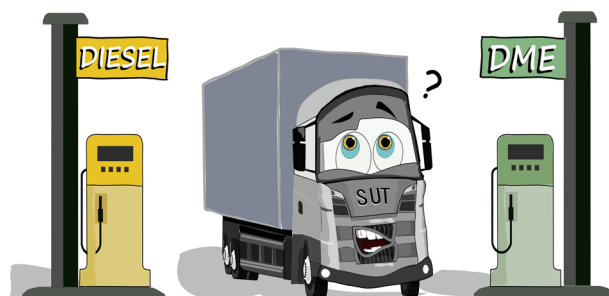
Samuel Kimani Kihoi, U. Sandhya Shenoy, Joseph Ngugi Kahi, Hyunji Kim, D. Krishna Bhat and Ho Seong Lee*



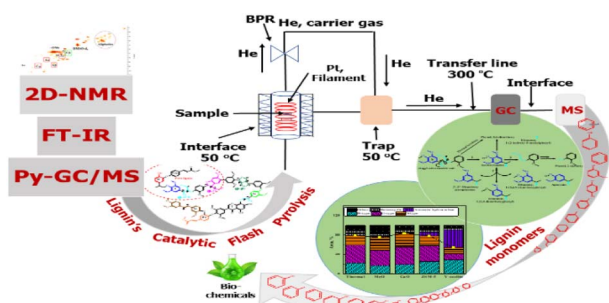
1930

Absolute environmental sustainability assessment of renewable dimethyl ether fuelled heavy-duty trucks

Margarita A. Charalambous, Victor Tulus, Morten W. Ryberg, Javier Pérez-Ramírez and Gonzalo Guillén-Gosálbez*



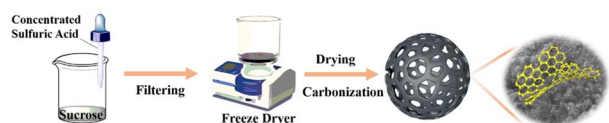
1942



Structure elucidation of prot, alkali and dealkaline lignin(s) by NMR, FT-IR and Py-GC/MS: effect of solid acid and base catalysts

Avnish Kumar, Bijoy Biswas, Ramandeep Kaur, Reeta Rani, Bhavya B. Krishna and Thallada Bhaskar*

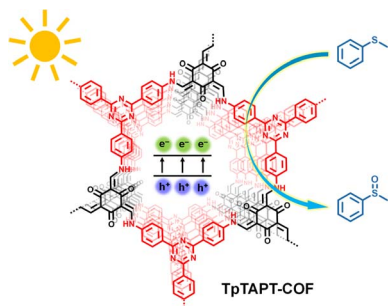
1955



Regulating defects and interfacial compatibility of porous carbon derived from oxygen-containing composites to enhance oxygen reduction in aqueous electrolytes

Zheng Li, Chenfan Yang,* Guoning Mao and Qiyu Wang*

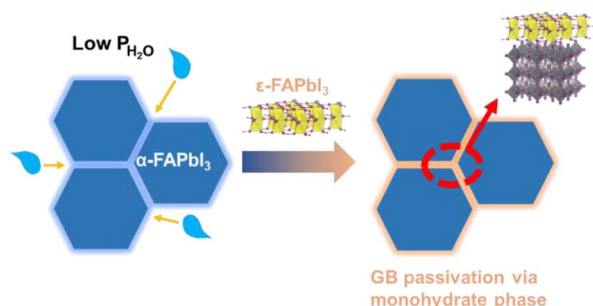
1963



2D β -ketoenamine-linked triazine covalent organic framework photocatalysis for selective oxidation of sulfides

Xin Miao, Fulin Zhang, Yuexin Wang, Xiaoyun Dong and Xianjun Lang*

1974



Stable FAPbI₃ hydrate structure by kinetics negotiation for solar cells

Ryan Taoran Wang, Yu Zhang, Xiaoxue Wu, Weiwei Zhang, Longxing Chi and Fan Xu*

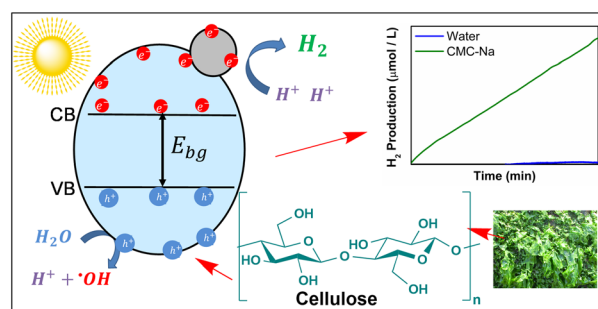


PAPERS

1981

Cellulose as sacrificial agents for enhanced photoactivated hydrogen production

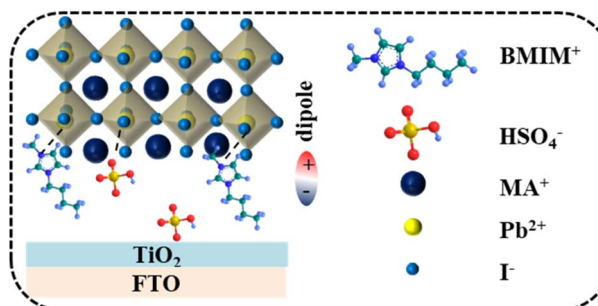
María Isabel Alvarado-Ávila, Stefano De Luca, Ulrica Edlund, Fei Ye and Joydeep Dutta*



1992

An ionic liquid as an interface modulator for highly efficient and stable perovskite solar cells

Xiang Chen, Lixin Song,* Ningxia Gu, Pengyun Zhang, Lei Ning, Pingfan Du, Fengfeng Chen and Jie Xiong*



2003

Efficient synthesis of 5-hydroxymethylfurfural by MCM-41 modified with multiple acid sites

Xiaofan Zhu, Qiqi Liang, Yan Fu and Jie Chang*

