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See Yumiko Takagi and Toshiyuki Itoh, pp. 2750–2778. Image reproduced by permission of Yumiko Takagi and Toshiyuki Itoh from *RSC Sustainability*, 2025, 3, 2750.



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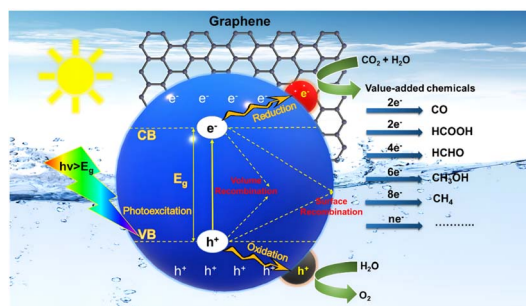
Elish Chambers, Matthew Hassall, Dominic Johnson, Conall McGoran, Olivia Williams, Aden Blair, Freddie Catlow and Basudeb Saha*



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Unlocking the carbon dioxide photoreduction potential of graphene-derived catalysts: mechanisms, product selectivity, and challenges

Manisha Sain, Debanjali Dey, Ramkrishna Sen and Shamik Chowdhury*



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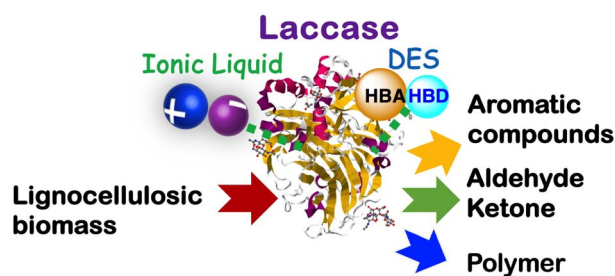
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Advancing laccase-catalysed depolymerisation of lignocellulosic biomass with the help of ionic liquids or deep eutectic solvents

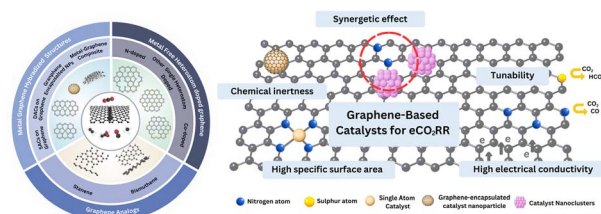
Yumiko Takagi and Toshiyuki Itoh*



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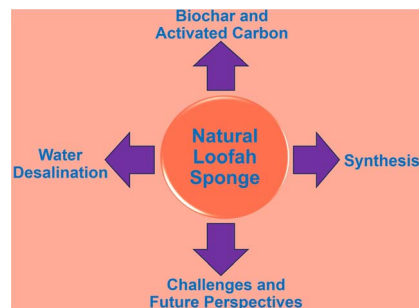
Lankamullage Hasini Amanda Wijewardena, Woo Seok Cheon, Seol-Ha Jeong,* Jungwon Park* and Ho Won Jang*



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Loofah sponge: a sustainable material for wastewater desalination

Susmi Anna Thomas,* Jayesh Cherusseri* and Deepthi N. Rajendran*

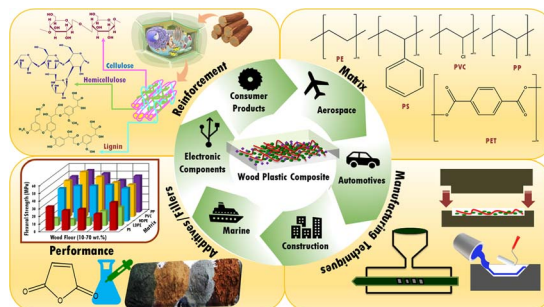


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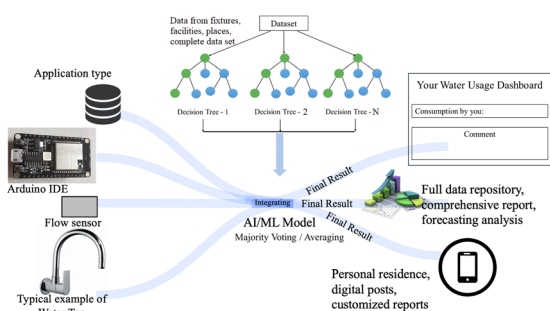
Towards sustainable wood–plastic composites: polymer types, properties, processing and future prospects

Anam Khan, Alka Mishra, Vijay Kumar Thakur and Asokan Pappu*



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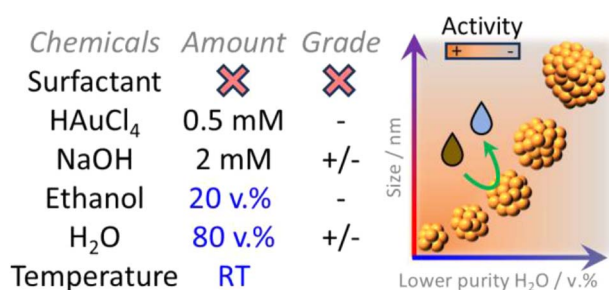


A sustainable future: the impact of real-time feedback systems on water conservation efforts

Manoj Kumar Jindal,^{*} Pradip Kumar Tewari, Vikky Anand^{*} and Uthukotasriram Abhishek

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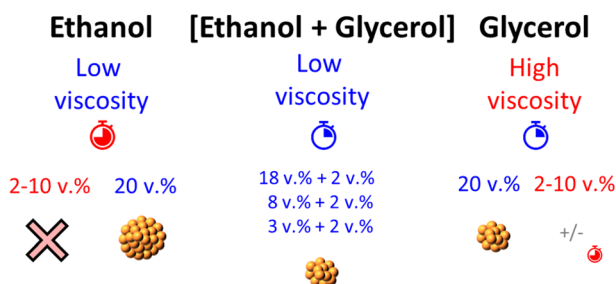
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Frederik Jæger, Albert Abildtrup Pedersen, Peter Stensgaard Wachterhausen, Aleksandra Smolska and Jonathan Quinson^{*}

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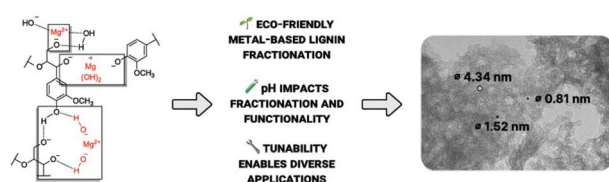
Less chemicals for more controlled syntheses: on the benefits of mixtures of alcohols for room temperature surfactant-free colloidal syntheses of gold nanoparticles

Julie Christine Hamer Larsen, Astrid Nymann Porsgaard, Leander Vinding, Aleksandra Smolska and Jonathan Quinson^{*}

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Integrated fractionation and templating of lignin using magnesium for sustainable and tailored porous carbon

Angelo Robiños, Hao Zhang, Zekra Mousavi, Tor Laurén, Jan-Henrik Smått, Leena Hupa, Chunlin Xu^{*} and Johan Bobacka^{*}

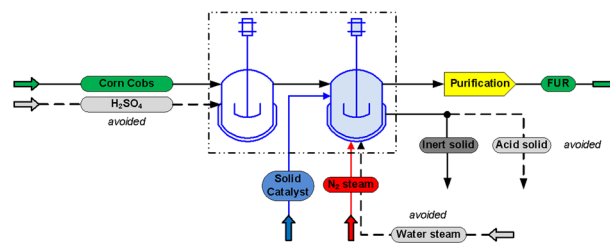


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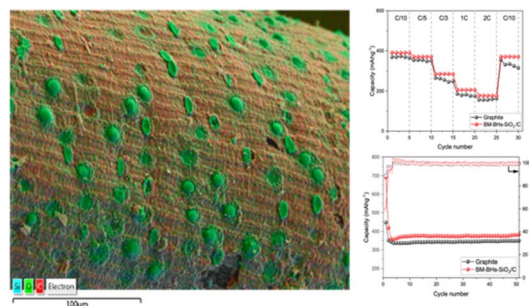
Jorge Blanco-Cejas,* Ion Agirre,* Inaki Gandarias, Jovita Moreno and Jose Iglesias



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From waste to power: utilizing barley husk as a sustainable anode active material alternative to graphite in lithium-ion batteries

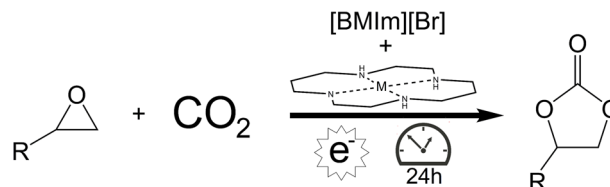
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Integrated experimental and theoretical insights into CO₂ fixation: tetraazamacrocyclic catalysts in ionic liquids for cyclic carbonate formation

Jessica Honores,* Diego Quezada, Maria B. Camarada, Galo Ramirez and Mauricio Isaacs*



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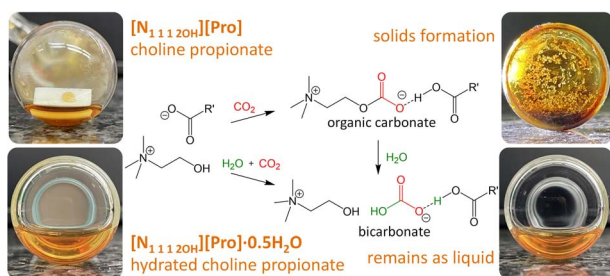
Probing adsorption interactions of lignin derivatives in industrial zeolite catalysts through combining vibrational spectroscopy and *ab initio* calculations

K. S. C. Morton, A. J. O. Malley* and J. Armstrong*



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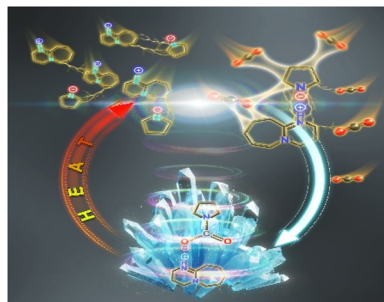
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CO₂ capture by carboxylate ionic liquids: fine-tuning the performance by altering hydrogen bonding motifs

Mohammad Yousefe, Katarzyna Glińska, Michael Sweeney, Leila Moura, Matgorzata Swadźba-Kwaśny and Alberto Puga*

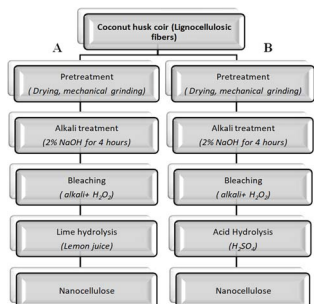
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Efficient capture of carbon dioxide to form organic crystals at low pressure and room temperature

Shangzhong Zhang and Lifeng Yan*

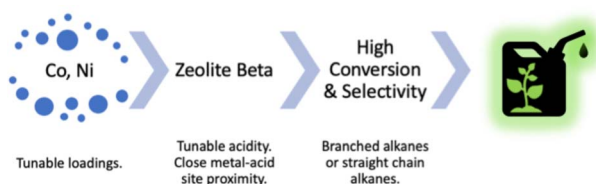
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Upcycling coconut husk coir by extraction of cellulose nanofibrils using green citric acid from lemon juice

Navdeep Kaur, Parul Chandel, Antonio J. Capezza, Annu Pandey, Richard T. Olsson* and Nibedita Banik*

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Bifunctionality of supported metal hydrodeoxygenation catalysts

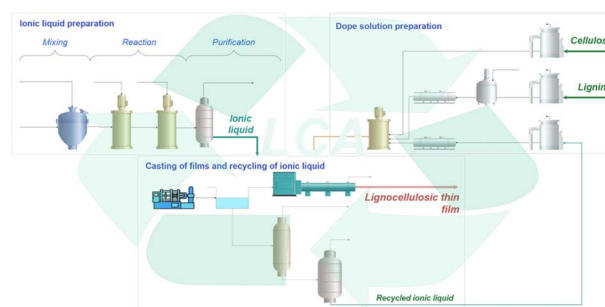
Raiven I. Balderas, Logan Myers, Jacob Miller, Cody J. Wrasman, Derek Vardon and Ryan M. Richards*



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Unveiling the environmental costs of lignocellulosic film production with ionic liquids: the case of 1-ethyl-3-methylimidazolium acetate

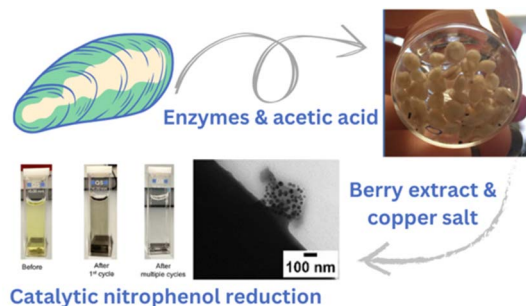
Diego Freire Ordóñez,^{*} Antonella Rozaria Nefeli Pontillo, Niall Mac Dowell, Tom Welton and Koon-Yang Lee^{*}



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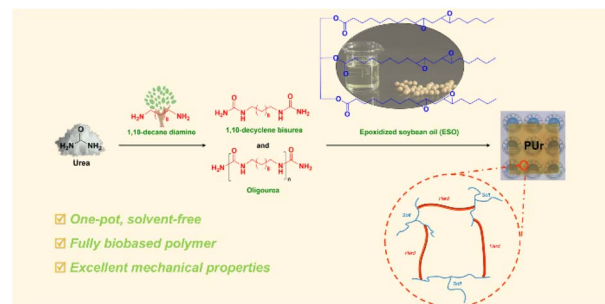
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One-pot synthesis of fully biobased polyureas with excellent mechanical properties from epoxidized soybean oil

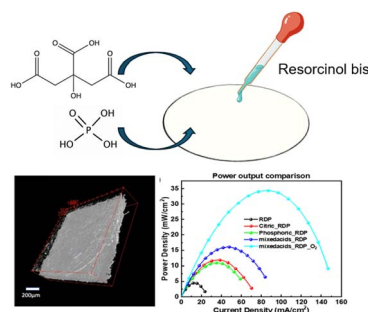
Lei Zhang and Donglin Tang^{*}

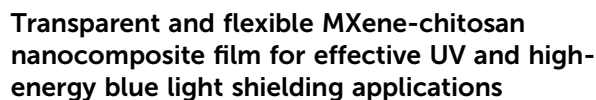


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Designing a micro-cellulose membrane for hydrogen fuel cells

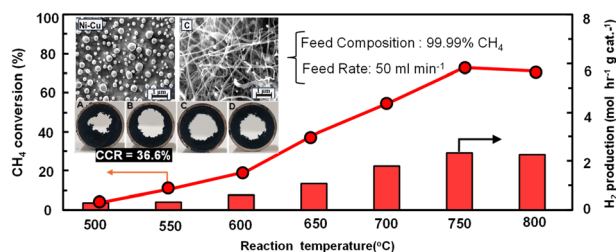
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Md. Hanif Munshi, Md. Didarul Islam, M. Mehedi Hasan,
Md Nasiruddin, S. M. Fazle Rabbi, Shaikh Almoon Hussain
and Md. Kamruzzaman*

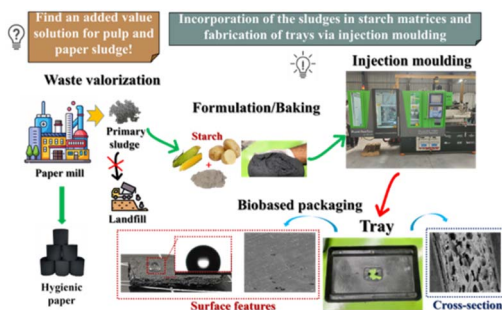
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Methane decomposition using a Ni–Cu-based hollow-wall-structured catalyst prepared by combined electroless plating

Prithvi Rasaili, Ryo Watanabe,* Hiroshi Akama
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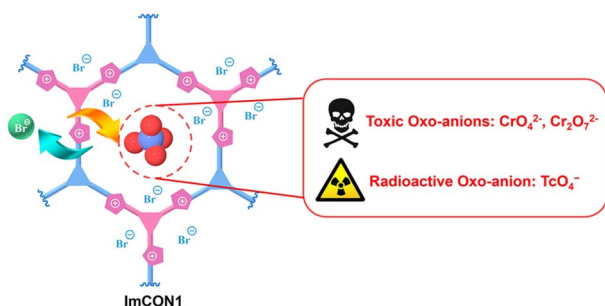
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A novel cationic organic network for ultra-fast and high-capacity removal of toxic oxo-anions from water

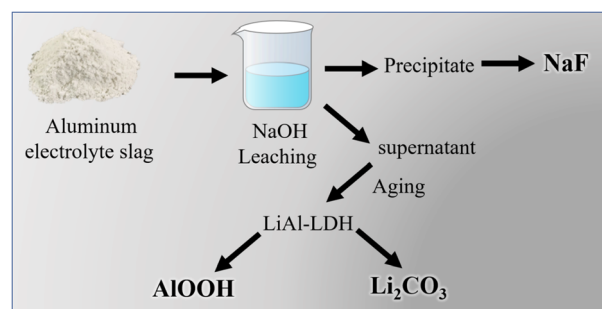
Yi-Shou Wang,* Xin-Yu Li, Rui-Rui Li, Xiao-Nan Yuan,
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Recovery of valuable metals from lithium-containing aluminum electrolyte slag *via* an NaOH leaching-aging-water leaching process

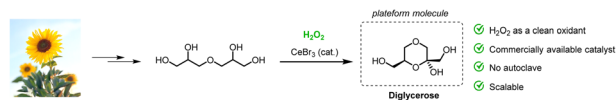
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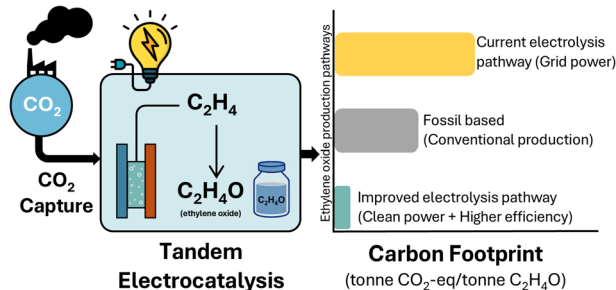
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Angel Badewole,* Jianan Erick Huang, Edward H. Sargent, Bradley A. Saville and Heather L. MacLean*



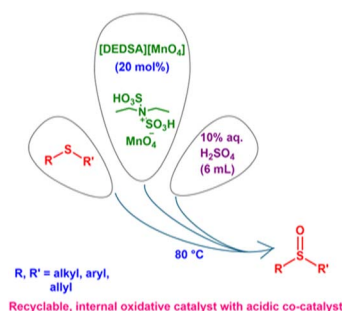
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Semi-continuous, industrial-like production of transparent cellulose films by means of the Lyocell-type loncell® process

Eva González Carmona, Inge Schlapp-Hackl, Kaarlo Nieminen, Wenwen Fang, Seppo Jääskeläinen, Kalle Salonen, Hannes Elmer, Helena Westerback, Herbert Sixta and Michael Hummel*



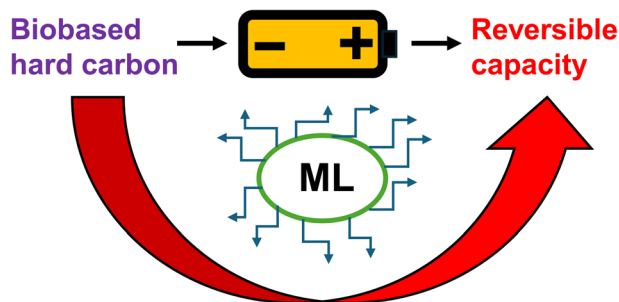
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Investigation of a sulfonic acid functionalized ammonium-based permanganate hybrid as a sustainable oxidative catalyst for selective conversion of organic sulfides to sulfoxides

Sangeeta Kalita, Niharika Kashyap, Prapti Priyam Handique, Debanga Bhusan Bora and Ruli Borah*

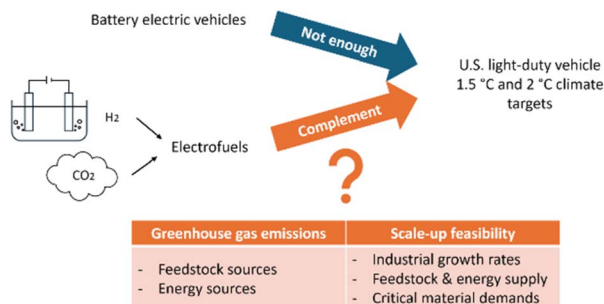
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Machine learning prediction of the reversible capacities of a biomass-derived hard carbon anode for sodium-ion batteries

Stephen Yaw Owusu*

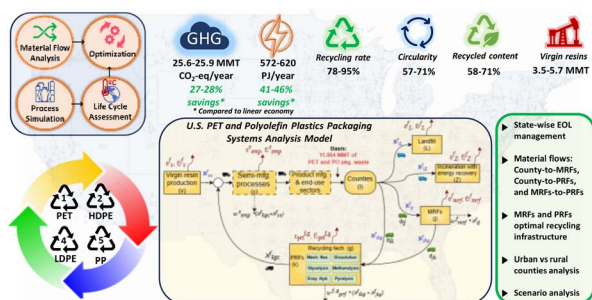
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Meeting U.S. light-duty vehicle fleet climate targets with battery electric vehicles and electrofuels

Dijuan Liang,* Alexandre Milovanoff, Hyung Chul Kim, Robert De Kleine, James E. Anderson, I. Daniel Posen and Heather L. MacLean

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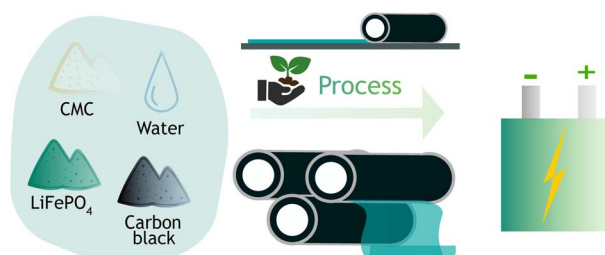


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Screen printability assessment of water-based composite electrodes for lithium-ion batteries

Nora Chelfouh, Ngoc Duc Trinh, Chloé Bois, Audrey Laventure* and Mickaël Dollé*



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Microbial degradation of tannery chrome-solid waste using *Bacillus thuringiensis*: optimization of collagen hydrolysate extraction via response surface methodology

Sharmin Akter Liza and Md. Abdulla-Al-Mamun*

