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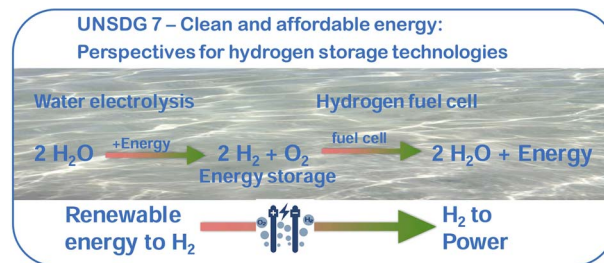
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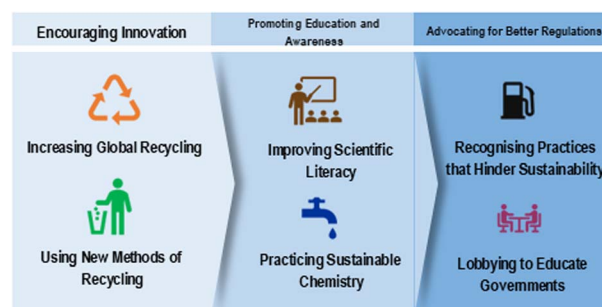


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"We didn't start the fire": how the chemical sciences can steward the use of our Earth's chemical resources

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Chemical sciences, technological innovations, and resource circulation

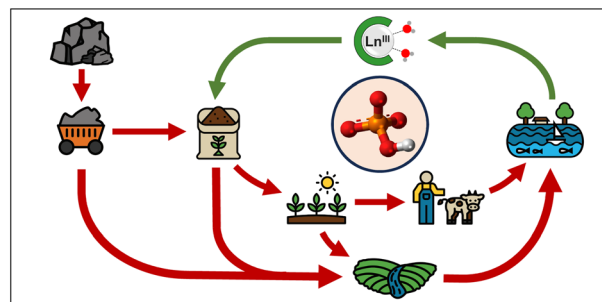
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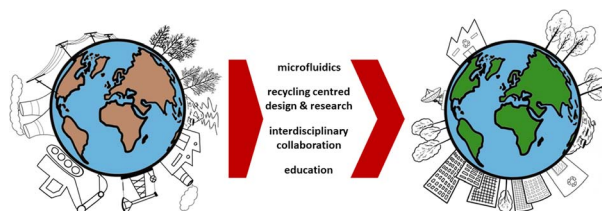
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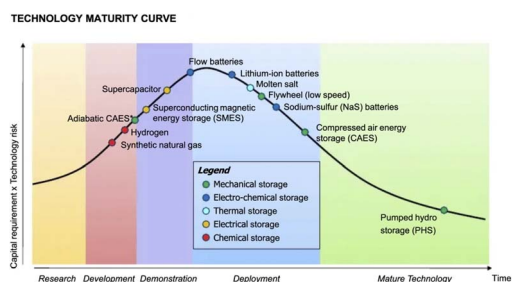
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ESSAYS

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Source: SBC Energy Institute. Electricity Storage FactBook. September 2013.

Climate crisis: energy storage challenges in the transition to renewable energies

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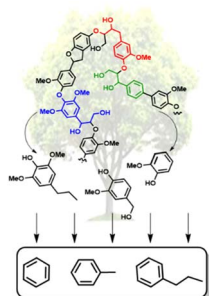


The excellence of chemical science in achieving a sustainable world

Selvakumar Selvarasu

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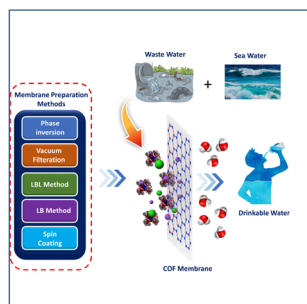
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A review on recent trends in selective hydrodeoxygenation of lignin derived molecules

Jake G. Tillou, Chigozie J. Ezeorah, Joseph J. Kuchta, III, Sachini C. D. Dissanayake Mudiyansele, James D. Sitter and Aaron K. Vannucci*

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Covalent organic framework-based lamellar membranes for water desalination applications

Akbar Ali, Muzmil Thebo, Dahar January, Muzaffar Iqbal, Waqas Mughal, Jun Yang* and Khalid Hussain Thebo*

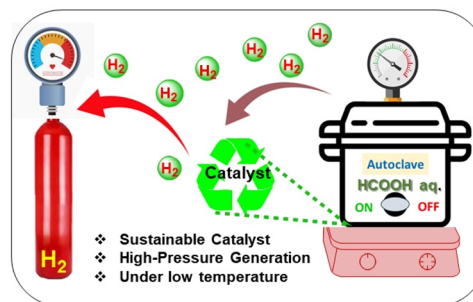


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High-pressure hydrogen generation from dehydrogenation of formic acid

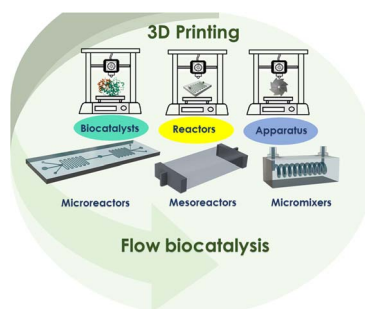
Soumyadip Patra, Babulal Maji, Hajime Kawanami and Yuichiro Himeda*



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3D printing for flow biocatalysis

Elena Gkantzou, Marie Weinhart and Selin Kara*

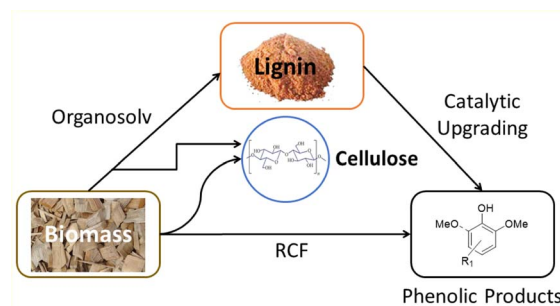


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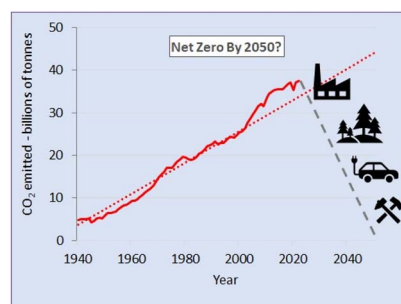
Mahdi M. Abu-Omar* and Peter C. Ford*



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Chemistry and pathways to net zero for sustainability

Stephen A. Matlin,* Goverdhan Mehta, Sarah E. Cornell, Alain Krief and Henning Hopf

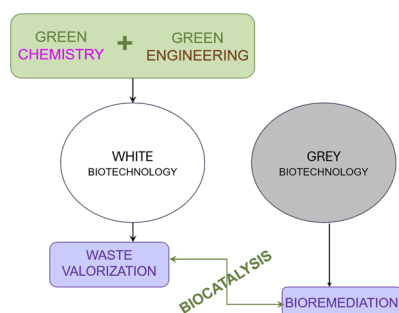


- GHG emissions reduction
- Carbon capture and reuse
- Shifts to new energy systems
- Efficient use of critical materials
- Clean, green production
- Circularity



PERSPECTIVES

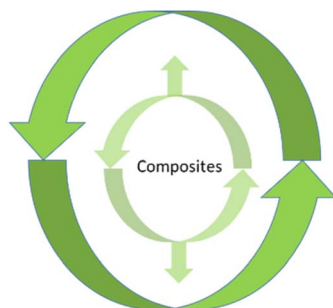
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White & grey biotechnologies for shaping a sustainable future

Ipsita Roy and Munishwar Nath Gupta*

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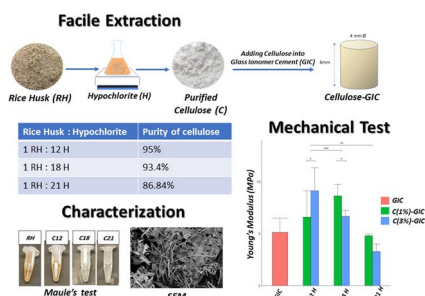


Some of the challenges faced by the Composites Industry in its bid to become more sustainable

Jonathan Meegan*

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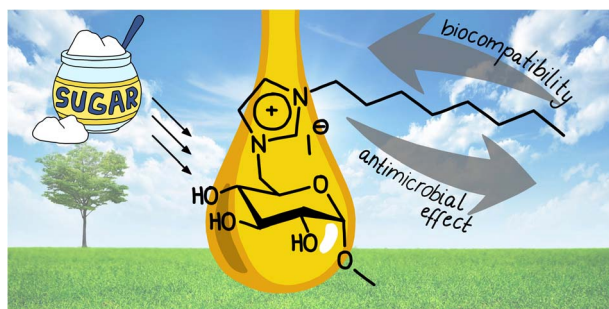


A one-step facile process for extraction of cellulose from rice husk and its use for mechanical reinforcement of dental glass ionomer cement

Saif El-Din Al-Mofty, Nehal H. Elghazawy and Hassan M. E. Azzazy*

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Synthesis, biocompatibility, and antimicrobial properties of glucose-based ionic liquids

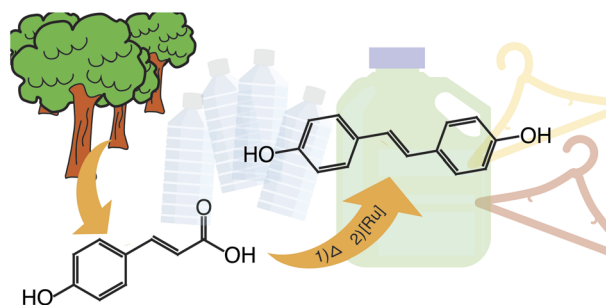
Stefan Jopp,* Tabea Fleischhammer, Antonina Lavrentieva, Selin Kara and Johanna Meyer*



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Highly efficient synthesis of sustainable bisphenols from hydroxycinnamic acids

Cristian E. Zavala, Natalie A. Vest, Joshua E. Baca, Derek D. Zhang, K. Randall McClain and Benjamin G. Harvey*



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Sustainable approach for the synthesis of chiral β -aminoketones using an encapsulated chiral Zn(II)-salen complex

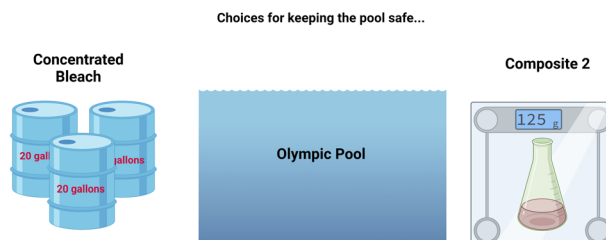
Pratikkumar Lakhani, Sanjeev Kane, Himanshu Srivastava, U. K. Goutam and Chetan K. Modi*



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Lethal weapon II: a nano-copper/tetraalkylphosphonium ionic liquid composite material with potent antibacterial activity

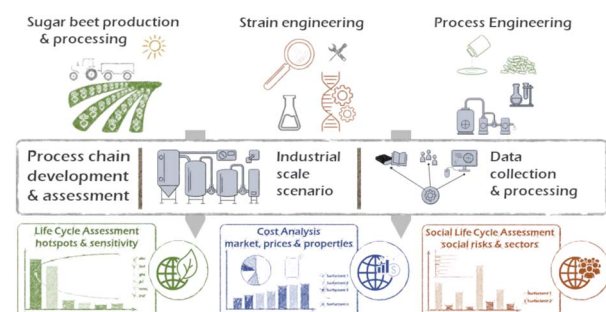
Abhinandan Banerjee,* Bukola R. Aremu, Sima Dehghandokht, Rayan Salama, Hao Zhou, Sharon M. Lackie, Moutasem Seifi, Pierre Kennepohl and John F. Trant*



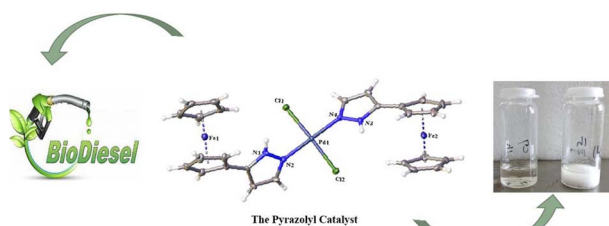
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Biosurfactants' production with substrates from the sugar industry – environmental, cost, market, and social aspects

Andreas Schonhoff,* Gerrit Stöckigt, Christina Wulf, Petra Zapp and Wilhelm Kuckshinrichs



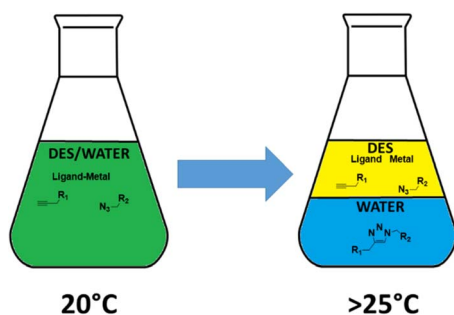
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Hydrogenation of biodiesel catalysed by pyrazolyl nickel(II) and palladium(II) complexes

Oluwasegun Emmanuel Olaoye,^{*} Olayinka Oyetunji,^{*} Banothile C. E. Makhubela, Gopendra Kumar and James Darkwa^{*}

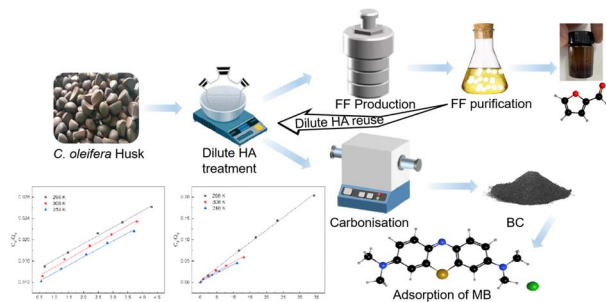
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Thermo-switchable hydrophobic deep eutectic solvent for CuAAC

Florence Charnay Pouget, Jean-Michel Andanson^{*} and Arnaud Gautier^{*}

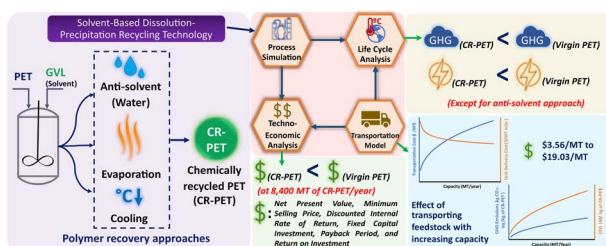
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Mingyang Hu, Yanyan Yu, Xiaoyan Li, Xinyu Wang and Yun Liu^{*}

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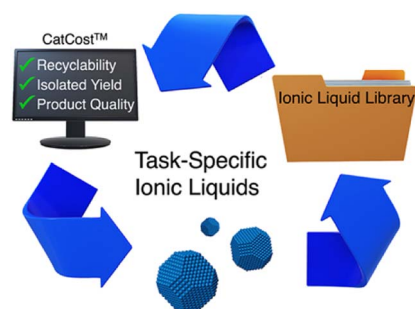
Utkarsh S. Chaudhari,^{*} Daniel G. Kulas, Alejandra Peralta, Tasmin Hossain, Anne T. Johnson, Damon S. Hartley, Robert M. Handler, Barbara K. Reck, Vicki S. Thompson, David W. Watkins and David R. Shonnard



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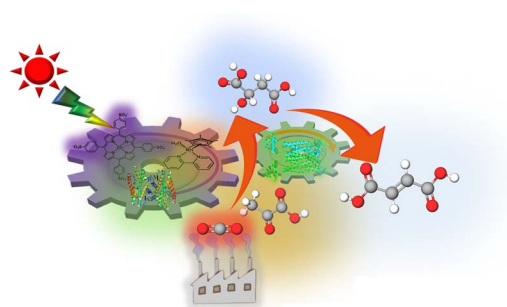
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Noah Malmstadt* and Richard L. Brutchey*



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Mika Takeuchi and Yutaka Amao*



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Jakub F. Kornecki, André Pick,* Pablo Dominguez de María and Fernando López-Gallego*

