

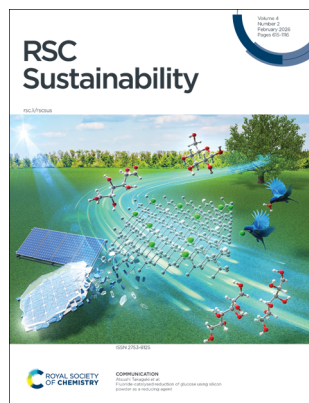
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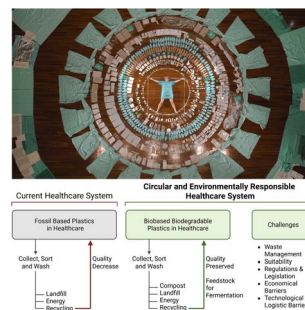
Inside cover
See Patrick van Rijn *et al.*, pp. 628–649. Image reproduced by permission of Maria Kojick®.

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Biodegradable bioplastics in healthcare: opportunities, challenges and sustainable recycling

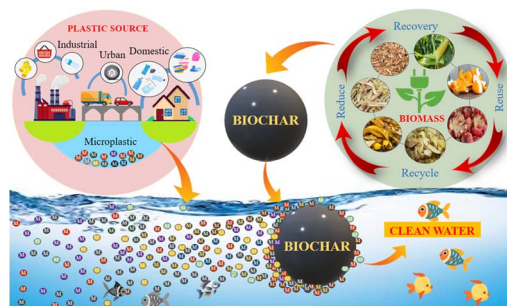
Noëlle ten Boer, Irem Soyhan, Suzan Abrishami, Daniele Parisi, Janneke Krooneman, Jeroen Siebring and Patrick van Rijn*



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Rinki Chaudhary, Gunjan Sangwan, Sanjay Kumar and Vivek Sharma*



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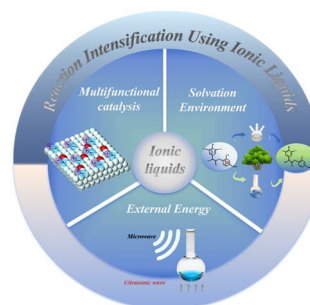
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Advanced ionic liquid technologies for sustainable reaction intensification

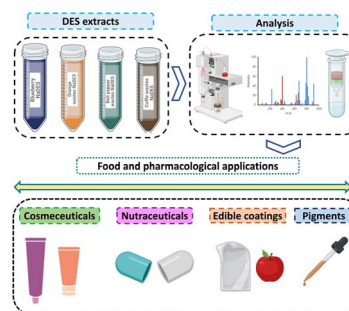
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Luis Alfonso Jiménez-Ortega, Marta Marques, María Priscila Quiñonez-Angulo, Alexandre Paiva, J. Basilio Heredia, Ana Rita C. Duarte* and Josué D. Mota-Morales*

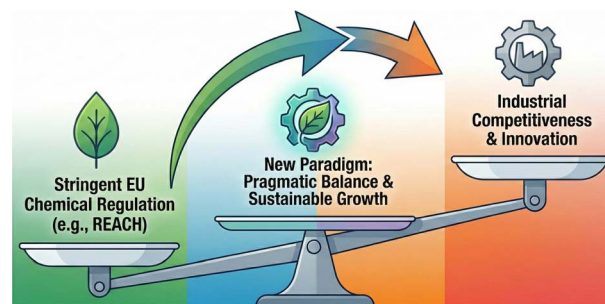


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Change of tides in European chemical legislation a turning point in European chemicals policy: reconciling green ambitions with the viability of the manufacturing sector in Europe

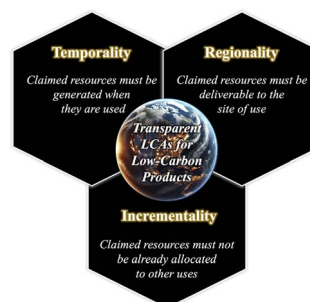
Éva Ujaczki and Jan Backmann*



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The push and pull of policy on life cycle assessment of low-carbon systems

Patrissia M. Stathatou,* Valerie M. Thomas and Matthew J. Realff*



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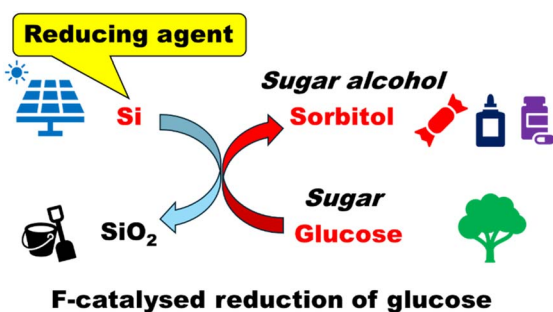


A case study in the emerging bioeconomy: biobased solvents dihydrolevoglucosenone and 2-methyltetrahydrofuran

Giuseppe Angellotti, Giovanna Li Petri, Chiara Valenza, Rafael Luque,* Rosaria Ciriminna* and Mario Pagliaro*

COMMUNICATIONS

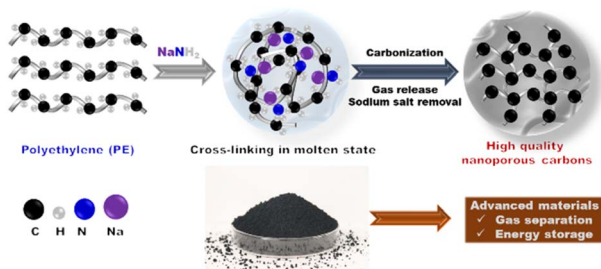
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Fluoride-catalysed reduction of glucose using silicon powder as a reducing agent

Toa Kojo, Ken Motokura and Atsushi Takagaki*

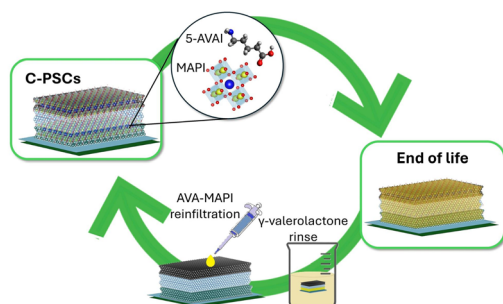
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A tandem approach for waste-to-nanomaterial transformation towards polyethylene recycling

Yanan Huang, Chi-Linh Do-Thanh, Zhenzhen Yang,* Sheng Dai* and Hao Chen*

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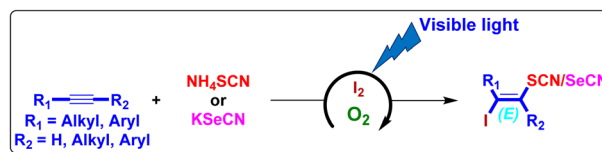
Sustainable remanufacturing of mesoscopic carbon perovskite solar cells using green solvents

Karen Valadez-Villalobos, Carys Worsley, Rodrigo Garcia-Rodriguez, Trystan Watson and Matthew Davies

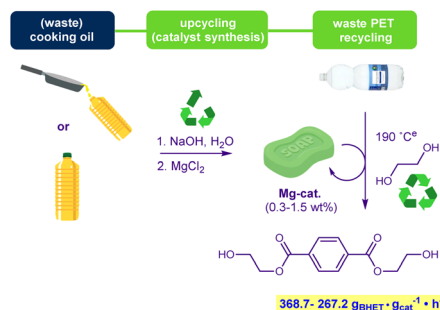


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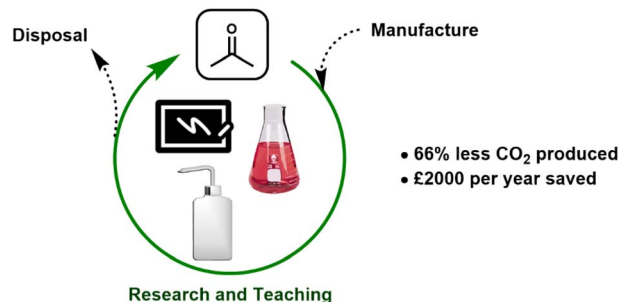
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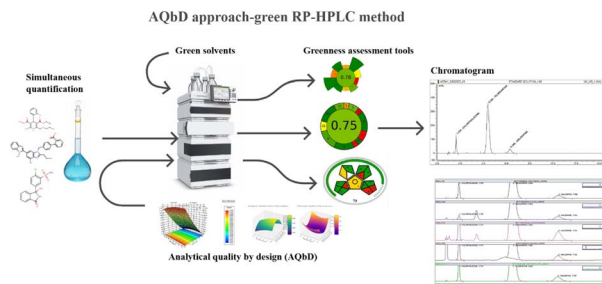
Upcycle to recycle: triglyceride-derived magnesium
soaps as stable, sustainable and efficient catalysts for
poly(ethylene terephthalate) glycolysisLorenzo Pedrini, Anshul Jain, Lauren Kenny, David
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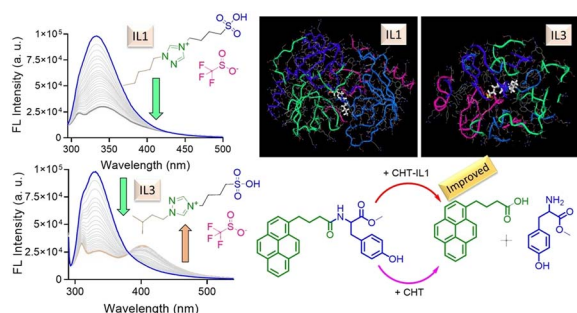
Acetone recycling: a case study in the undergraduate
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An integrated approach of green chemistry and
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estimation of drugs in a fixed-dose combination by
a stability-indicating RP-HPLC methodVarsha Vishnupant Thorat, Sudhakar Maruti Alave*
and Vijay Arjun Bagul

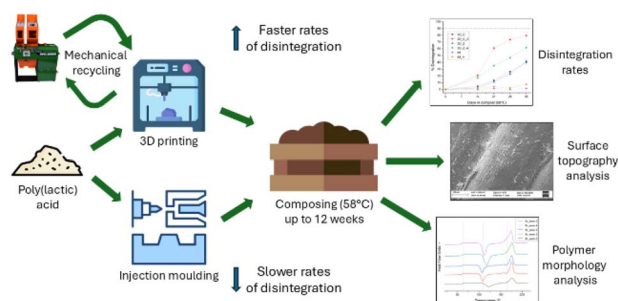
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Divergent binding modes direct functional modulation: toward next-generation ionic liquids for enzyme stabilization and biocatalysis

Swapan Patra, Dharmendra Singh* and Nilanjan Dey*

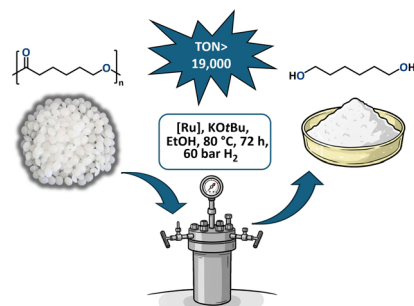
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Manufacturing process significantly impacts the rate of degradation of polylactic acid (PLA) under controlled composting conditions

Jennie O'Loughlin, Hannah McDonnell, Robyn Lawless, Susan M. Kelleher, Samantha Fahy, Brian Freeland, Keith D. Rochfort* and Jennifer Gaughran

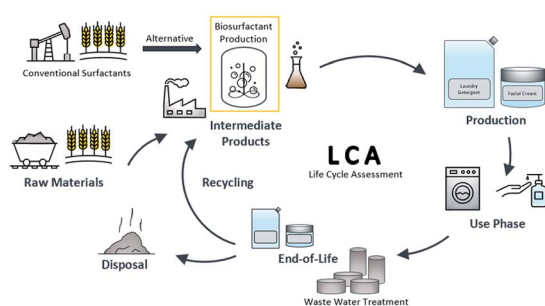
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Highly efficient hydrogenative depolymerisation of polycaprolactone to 1,6-hexanediol

Garima Saini, Alejandra Sophia Lozano Perez, Niklas von Wolff and Amit Kumar*

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Biosurfactant-containing products from an environmental perspective – life cycle assessment of a liquid laundry detergent and a personal care product

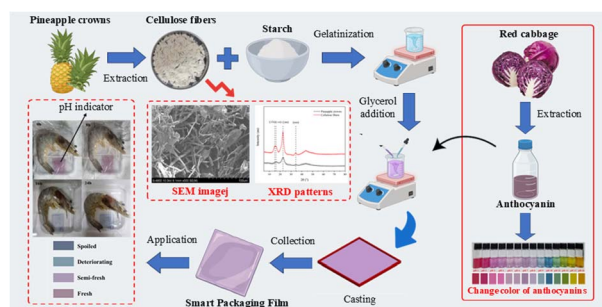
Lea Gavez, Lars Bippus,* Ann-Kathrin Briem and Stefan Albrecht



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Green extraction of cellulose fibers from pineapple crown waste for the development of pH-sensitive bioplastic films based on starch and purple cabbage anthocyanins

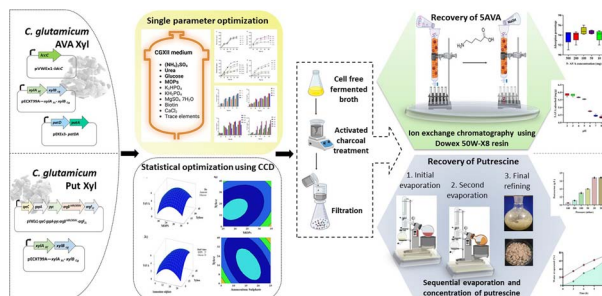
Nguyen Bui Anh Duy, Nguyen Thanh Huy, Bui Phuong Dong, Pham Nguyen Hong Nhu, Phan Quoc Phu* and Nguyen Chi Thanh*



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Green initiatives for the synthesis of polyamide monomers: precision fermentation using engineered *Corynebacterium glutamicum* and extraction of purified 5-aminovaleric acid (5AVA) and putrescine

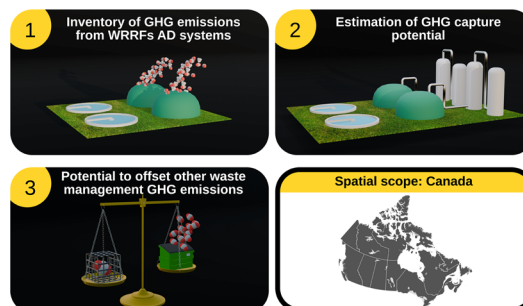
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Decarbonizing anaerobic digestion in Canada's wastewater resource recovery facilities: an opportunity to attain carbon-neutral biogas production and its potential to offset waste management sector carbon emissions

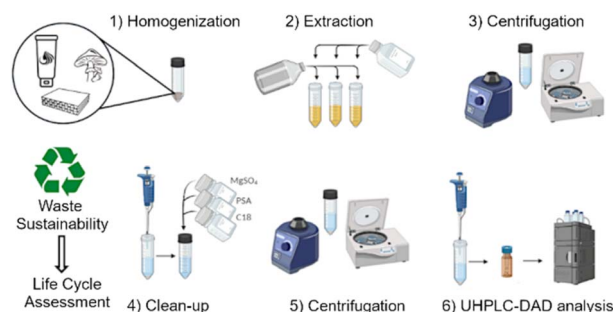
Edgar Martín-Hernández, Kexuan Chen, Domenico Santoro and Sidney Omelon



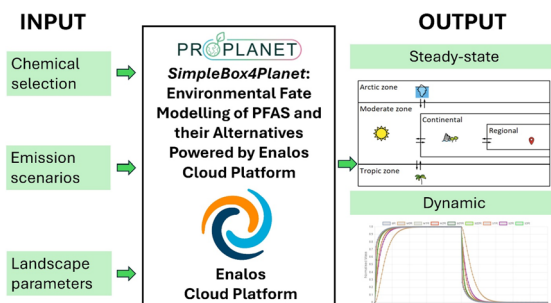
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Mixture design of experiments to improve fungal degradation of cosmetic pigments

Erika Ribezzi, Fabio Fornari, Nicolo' Riboni,* Maria Vittoria Rizzo, Monica Mattarozzi, Maurizio Piergiovanni, Alessandra Mori, Paolo Goi, Corrado Sciancalepore, Daniel Milanese, Giuseppe Vignali, Federica Bianchi* and Maria Careri



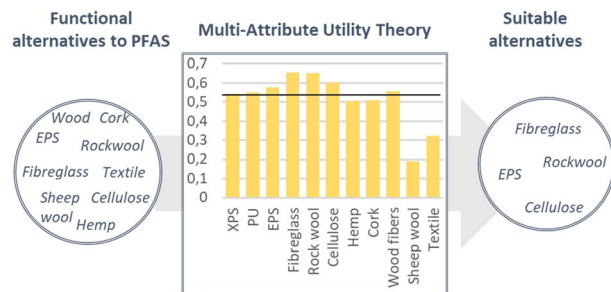
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SimpleBox4Planet: environmental fate modelling of PFASs and their alternatives via the Enalos Cloud Platform

Dimitris G. Mintis, Constantinos Papavasiliou, Dimitra-Danai Varsou, Andreas Tsoumanis, Georgia Melagraki, Johannes P. Seif, Marc Majó, Alejandro J. del Real, Tommaso Serchi, Roland Hischier, Iseult Lynch and Andreas Afantitis*

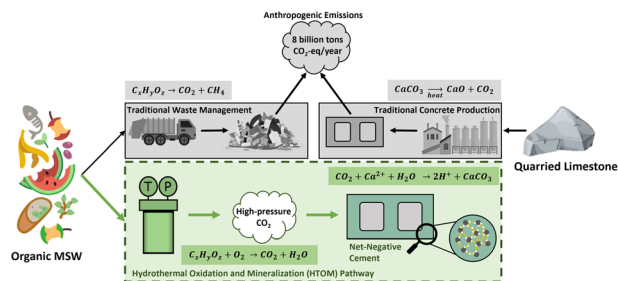
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Assessment of functional alternatives to fluorinated foam blowing agents in insulation materials

Romain Figuière,* Olivier Kirik, Rahul Aggarwal, Gregory Peters and Ian T. Cousins

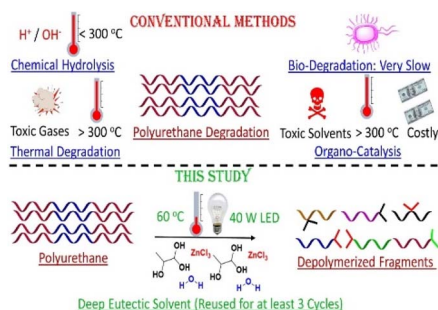
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Negative-emission waste-to-concrete via tandem supercritical water oxidation and hydrothermal mineralization

David H. Kenney, Andrew M. Charlebois, Shuai Wang, Nima Rahbar, Michael T. Timko and Andrew R. Teixeira*

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Unprecedentedly high dissolution and depolymerization of hard-to-dissolve polyurethane in deep eutectic solvents under low-energy white light

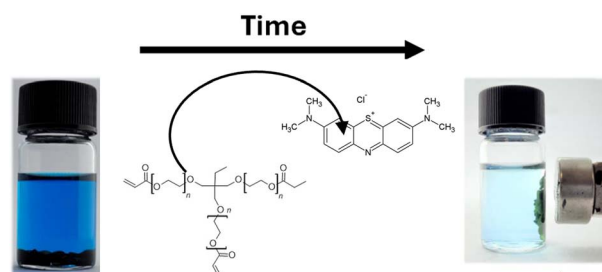
Harmandeep Kaur, Rajwinder Kaur, Muskan, Manpreet Singh, Ravi Dutt, Kanica Sharma, Harjinder Singh, Kuldeep Singh, Arvind Kumar, Gurbir Singh and Tejawant Singh Kang*



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Polymer/iron-oxide nanocomposite adsorbents for cycled magnetically-enabled extraction of aqueous micropollutants

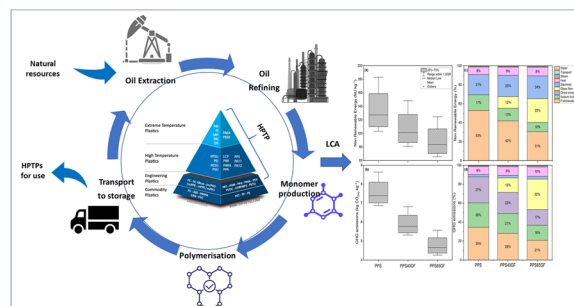
Eoin P. M^cKiernan, Alexa Ennis, Colm Delaney, Larisa Florea and Dermot F. Brougham*



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Environmental impacts of three high-performance thermoplastics (HPTPs) and associated glass-fiber reinforced grades from different processing technologies

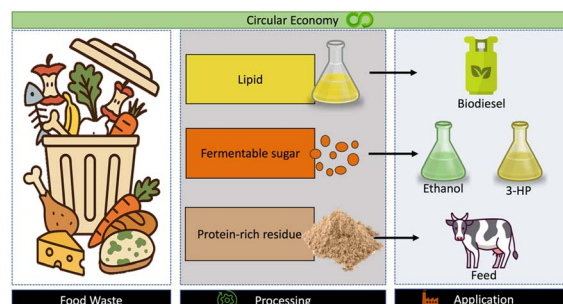
Aicha Touré, Jannick Duchet Rumeau, Béranger Thollet, Emile Pantaleao, Jérémy Sautel and Sylvestre Njakou Djomo*



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Integrated multi-stream valorization of kitchen food waste through enzymatic hydrolysis and selective fermentation

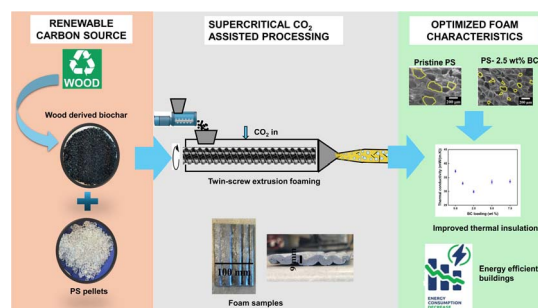
Shubhangi Arvelli, Deokyeol Jeong, Mairui Zhang, Linjing Jia, Haixin Peng, Ji Qi, Nilofar Arabi, Seyedamirreza Babaei, Eun Joong Oh and Jikai Zhao*



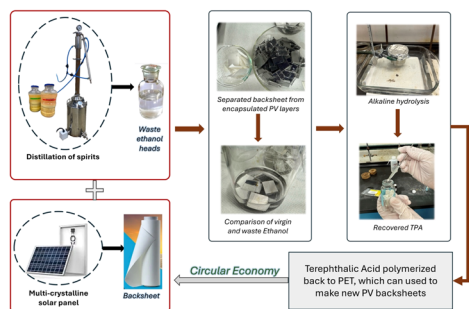
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Supercritical CO₂-foamed polystyrene composites containing wood-derived biochar for sustainable thermal insulation

Apurv Gaidhani, Guoshan Min, Lauren Tribe and Paul Charpentier*



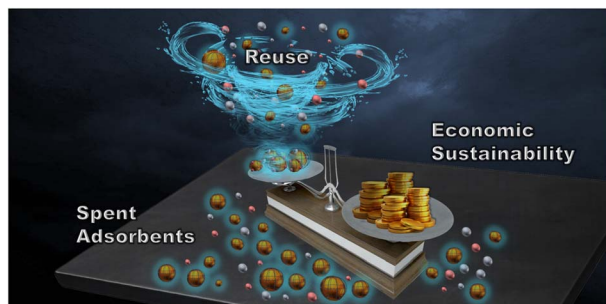
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Recovery of terephthalic acid from solar PV backsheets using waste solvent from distilled spirits production

Preeti Nain,^{*} Elanna P. Neppel, Richard-Joseph L. Peterson, W. Aaron Davis, Nicole E. Shriner and Annick Ancil

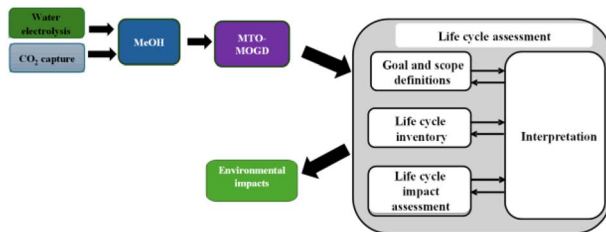
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Reusability of spent adsorbents for a circular materials economy in the sustainable chemical industry

Despina A. Gkika^{*} and George Z. Kyzas^{*}

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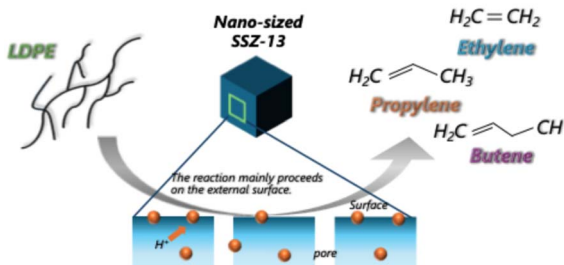


Fueling a green future: unlocking the environmental potential of CO₂-derived power-to-X liquid fuels *via* life cycle assessment

Ahmed Rufai Dahiru

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Light olefin yields improved by nanosizing



Sustainable chemical recycling of low-density polyethylene into light olefins over nano-sized SSZ-13

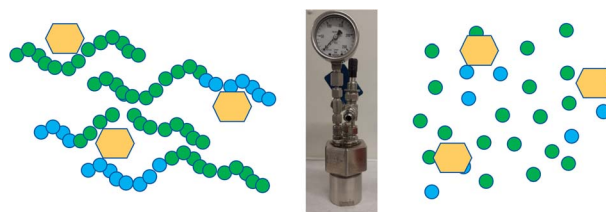
Yoshiki Murata, Ryuga Nakai, Koji Miyake,^{*} Yoshiaki Uchida, Atsushi Mizusawa, Tadashi Kubo and Norikazu Nishiyama



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Impact of molecular weight, additives and copolymers on the chemical recycling of (bio) plastics using solid ruthenium-based catalysts

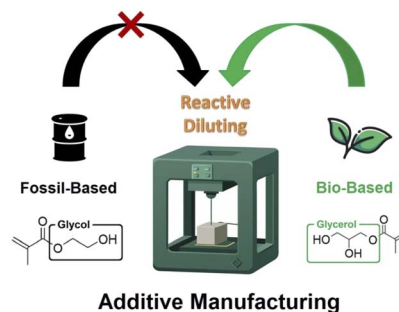
Marcus S. Lehnertz, Sylvie Dufour, Tabea Becker, Isabel Thiele, Saskia Waldburger, Jean-Marie Raquez, Sonja Herres-Pawlis, Sebastian L. Riedel and Regina Palkovits*



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Sustainable glycerol-based reactive diluent alternatives to commercial ethylene glycol diacrylate (EGDA) and 2-hydroxyethyl methacrylate (HEMA) for additive manufacturing

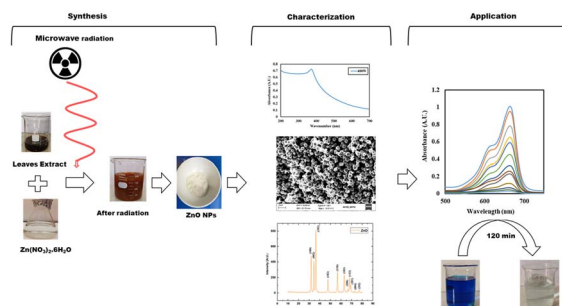
Vojtěch Jašek,* Silvestr Figalla,* Veronika Lavrinčíková and Radek Přikryl



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Microwave-assisted green synthesis of ZnO nanoparticles utilizing *Litchi chinensis* leaf waste for the efficient photocatalytic degradation of methylene blue

Mofassel Hossen Akash, Shukanta Bhowmik, Md. Abdus Samad Azad, Nahid Sultana and Md. Ashraful Alam*



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Correction: General component additivity, reaction engineering, and machine learning models for hydrothermal liquefaction

Peter M. Guirguis and Phillip E. Savage*

