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Inside cover

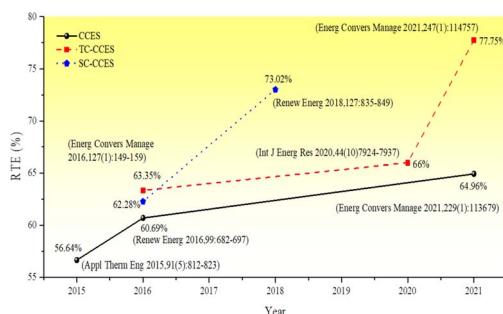
See Francisco G. Cirujano, Belén Altava, Pedro Lozano, Eduardo García Verdugo *et al.*, pp. 2781–2804. Image reproduced by permission of Pedro Lozano from *RSC Sustainability*, 2024, 2, 2781.

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Advancements and assessment of compressed carbon dioxide energy storage technologies: a comprehensive review

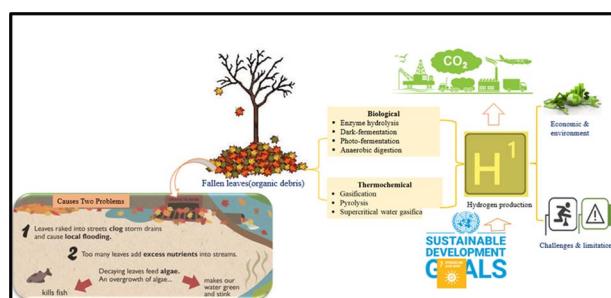
Hailing Ma, Yao Tong,* Xiao Wang* and Hongxu Wang*



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Kyu Kyu Tin, Wirach Taweeprada, Akanksha Singh, Naresh Kumar Wagri and Anil Kumar*



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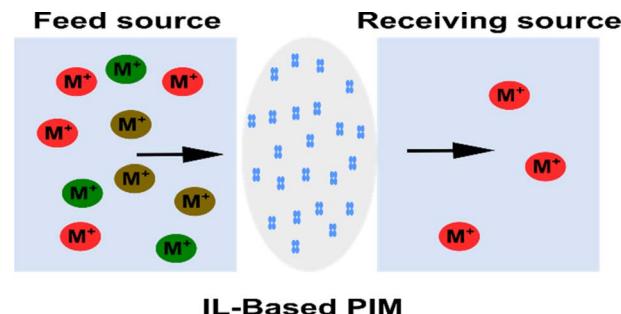
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Babafemi Adigun, Bishnu P. Thapaliya,* Huimin Luo and Sheng Dai*



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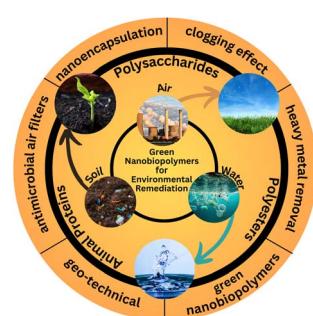
Francisco G. Cirujano,* Rocio Villa, Rebeca Salas, Miguel Maireles, Nuria Martín, Belén Altava,* Pedro Lozano* and Eduardo García Verdugo*



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Shikha Gulati,* Anoushka Amar, Lakshita Chhabra, Riya Katiyar, Meenakshi, Tanu Sahu and Rajender S. Varma*



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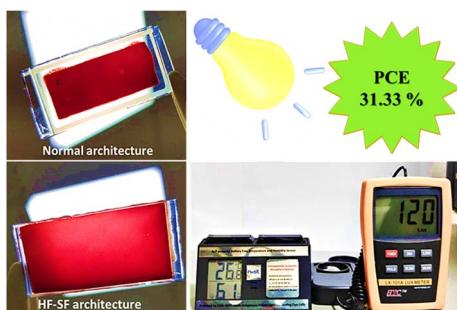
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Christina Apel, Akshat Sudheshwar, Klaus Kümmerer, Bernd Nowack, Klara Midander, Emma Strömberg and Lya G. Soeteman-Hernández*



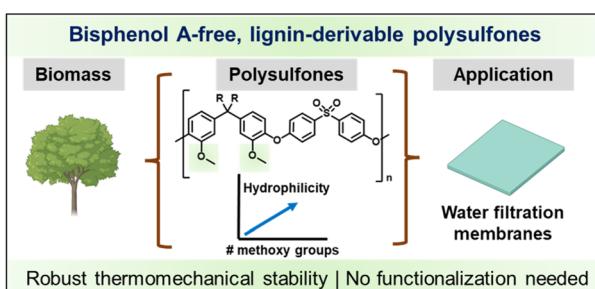
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Engineered hole-free, spacer-free dye-sensitized light harvesters for indoor photovoltaic and self-powered applications

Andrew Simon George, Sourava Chandra Pradhan, K. N. Narayanan Unni and Suraj Soman*

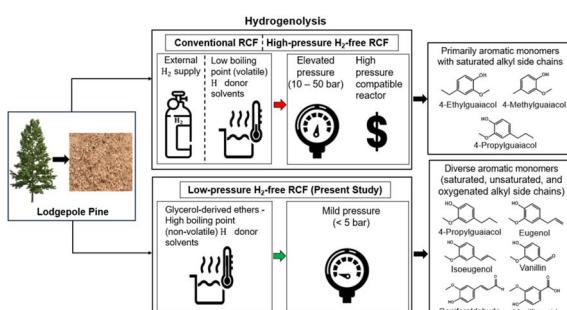
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Increased hydrophilicity of lignin-derivable vs. bisphenol-based polysulfones for potential water filtration applications

Jignesh S. Mahajan, Hoda Shokrollahzadeh Behbahani, Matthew D. Green,* LaShanda T. J. Korley* and Thomas H. Epps, III*

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Glycerol-derived ethers enable hydrogen-free reductive catalytic fractionation of softwood lignin into functionalized aromatic monomers

Bernard C. Ekeoma, Jason E. Bara and James D. Sheehan*

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Establishing ultraporous permanently polarized hydroxyapatite as a green and highly efficient catalyst for carbon dioxide conversion in continuous flow under mild conditions

Marc Arnau, Jordi Sans,* Pau Turon* and Carlos Alemán*

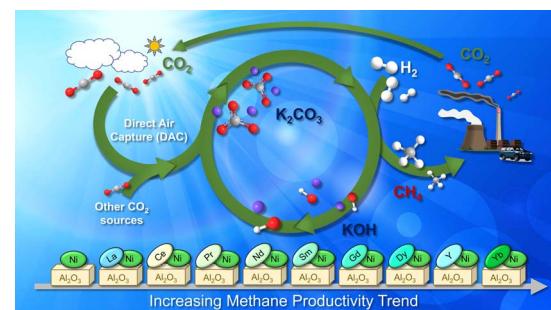


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Lanthanide promoted nickel catalysts for the integrated capture and conversion of carbon dioxide to methane *via* metal carbonates

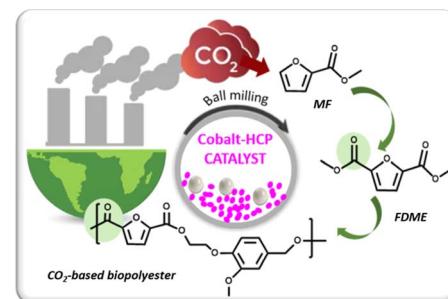
Christopher J. Koch, Zohaib Suhail, Prince, Anushan Alagaratnam, Matthew Coe, Alain Goeppert and G. K. Surya Prakash*



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Insertion of CO₂ to 2-methyl furoate promoted by a cobalt hypercrosslinked polymer catalyst to obtain a monomer of CO₂-based biopolymers

Elizabeth Rangel-Rangel, Beatriz Fuerte-Díez, Marta Iglesias and Eva M. Maya*

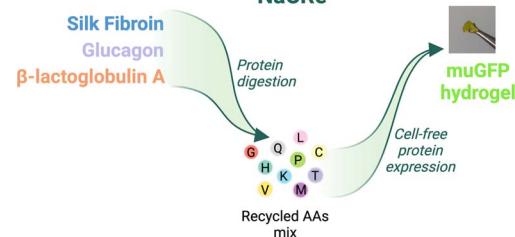


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Nature-inspired recycling of a protein mixture into a green fluorescent protein-based hydrogel

Laura Roset Julià, Sebastian J. Maerkli and Francesco Stellacci*

Nature inspired circular recycling of protein-based materials NaCRe



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Enhancing the H₂ yield from photoreforming of natural lignocellulose feedstock by two-stage thermo-alkaline hydrolysis pretreatment

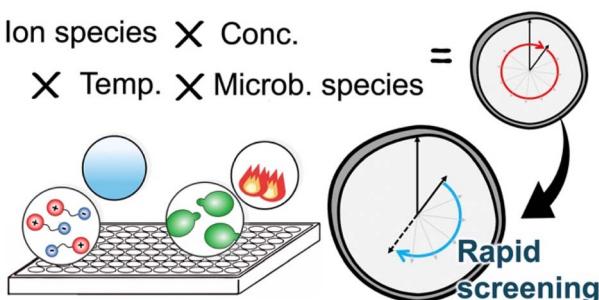
Wei Wang, Zhenyu Jin, Binhai Cheng* and Ming Zhao*



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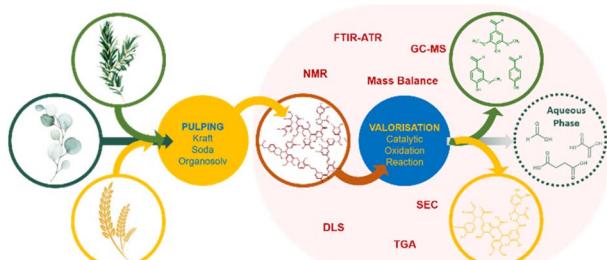
Ion species \times Conc.
 \times Temp. \times Microb. species



Rapid screening of toxicity to thermotolerant yeasts: inhibition of growth and fermentation by ionic liquids and zwitterions

Mayu Shibata, Ayumi Hachisu, Souta Uemori, Hitomi Tobe, Kazuaki Ninomiya and Kosuke Kuroda*

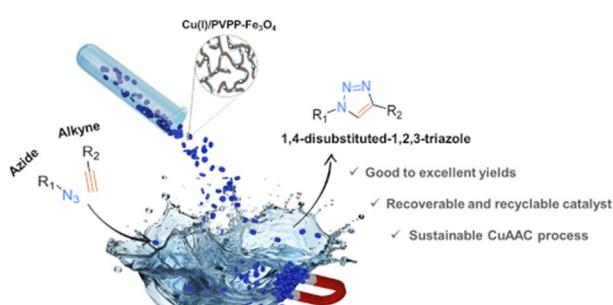
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Copper catalyzed alkaline aerobic lignin depolymerization: effect of botanical origin and industrial extraction process on reactivity supported through characterization

Antonio Hernández-Mañas, Alex Martínez-Martin, Johan Madignier, Pascal Fongarland, Frédérique Bertaud, Léa Vilcocq* and Laurent Djakovitch*

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Magnetic polyvinylpolypyrrolidone polymer composite-supported copper(II) catalyst: an efficient and easily reusable catalyst for sustainable synthesis of 1,2,3-triazoles in water

Noura Aflak,* Fatima-Ezzahraa Essebbar, Lahoucine Bahsis, Hicham Ben El Ayouchia, Hafid Anane, Miguel Julve and Salah-Eddine Stiriba*

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Introduction of the first commercial biobased benzoxazines for the manufacturing of fibre reinforced polymers

Gideon Abels, Katharina Koschek, Paul Jones and Wendy Howarth*

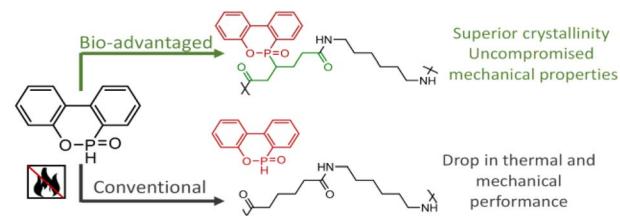


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Leveraging the bio-enabled muconic acid platform via phospha-Michael-addition: intrinsically flame-retardant nylon-66/DOPO copolymers

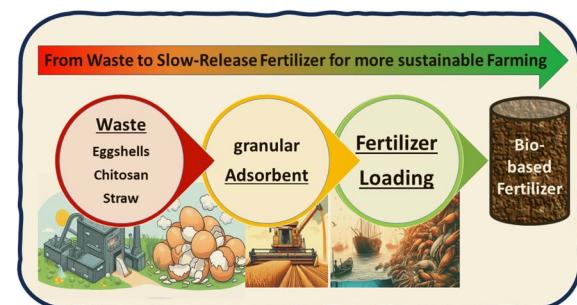
Prerana Carter, Peter M. Meyer, Ting-Han Lee, Dhananjay Dileep, Nickolas L. Chalgren, Sohaima Noreen, Michael J. Forrester, Brent H. Shanks,* Jean-Philippe Tessonnier* and Eric W. Cochran*



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Sustainable agro-waste pellets as granular slow-release fertilizer carrier systems for ammonium sulfate

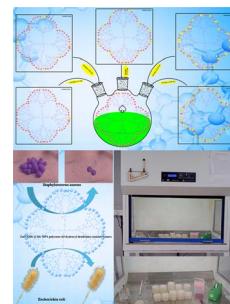
B. G. K. Steiger, N. T. Bui, B. M. Babalola and L. D. Wilson*



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Synthesis, characterization and antimicrobial activity of ZnO-QDs @ bis MPA polyester-64-hydroxyl dendrimer nanostructures

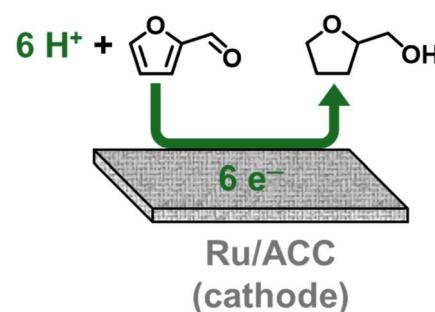
Archana Zala* and Harshad Patel



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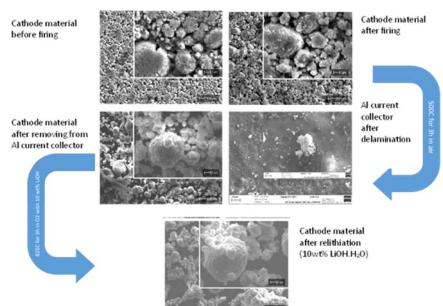
Electrocatalytic hydrogenation of the formyl group and heteroaromatic ring in furfural on activated carbon cloth-supported ruthenium

Meheryar R. Kasad, James E. Jackson and Christopher M. Saffron*



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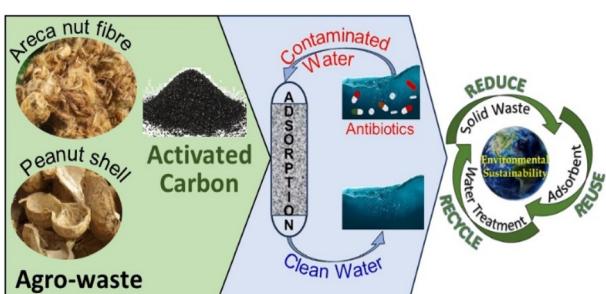
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Direct recycling of EV production scrap NMC532 cathode materials

Emily C. Giles, Abbey Jarvis, Alexander T. Sargent, Paul A. Anderson, Phoebe K. Allan and Peter R. Slater*

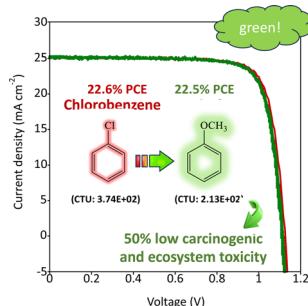
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Activated carbon with composite pore structures made from peanut shell and areca nut fibers as sustainable adsorbent material for the efficient removal of active pharmaceuticals from aqueous media

Sujata Mandal,* Dayana Stephen and Sreeram Kalarical Janardhanan

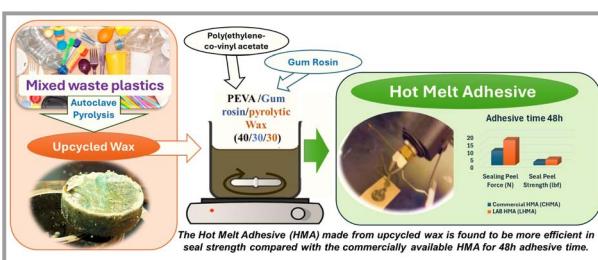
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Validating the "greeness" of chemicals *via* life cycle assessment: the case of anisole as an anti-solvent in perovskite solar cells

A. Kamal Kamali,* Nilanka M. Keppetipola, Yuka Yoshihara, Ajay Kumar Jena, Satoshi Uchida, Hiroshi Segawa, Guido Sonnemann, Thierry Toupane and Ludmila Cojocaru*

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Upcycled waxes from mixed polyolefins for hot-melt adhesive (HMA) applications

Anurag Ganapathi, Mohamed Shaker and Muhammad Rabnawaz*

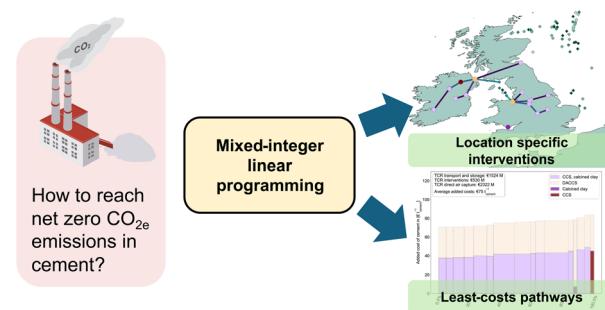


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Finding least-cost net-zero CO₂e strategies for the European cement industry using geospatial techno-economic modelling

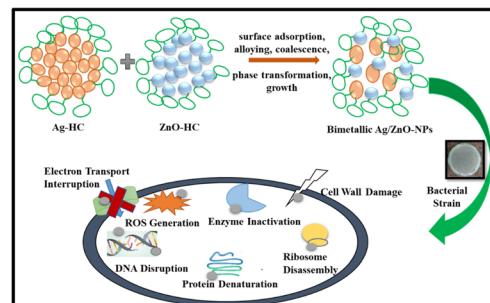
Till Strunge,* Lukas Küng, Nixon Sunny, Nilay Shah, Phil Renforth and Mijndert Van der Spek*



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Eco-friendly synthesis and enhanced antibacterial action of bimetallic Ag/ZnO nanoparticles using *Hylocereus costaricensis* stem extract

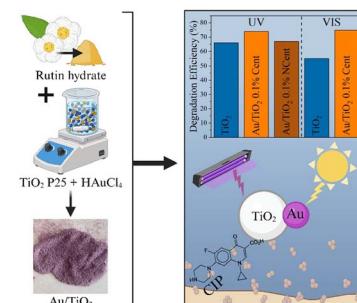
Joel Xaviour, S. Sreelekshmi, Jebin Joseph, S. Alfiya Fathima and T. Sajini*



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Towards green visible range active photocatalytic Au/TiO₂ nanocomposites through rutin-based synthesis and their application in the degradation of ciprofloxacin

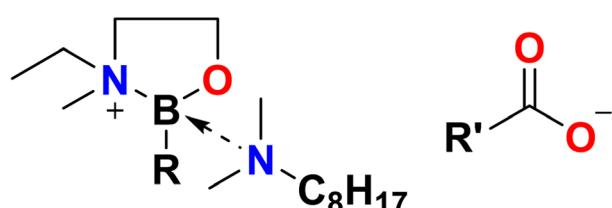
Inês Catarina Gomes Espada, Noelia González-Ballesteros, Carlos J. Tavares, Senentxu Lanceros-Méndez* and Pedro M. Martins*



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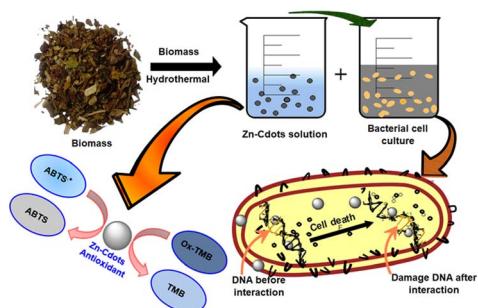
Task-specific boronium ionic liquids as ashless lubricant additives

Novina Malviya, Farah Fazlina M. Yasin, Maria Teresa Sateriale, Fergal Coleman, H. Q. Nimal Gunaratne, Andrea Dolfi, Geetha Srinivasan and Małgorzata Swadźba-Kwaśny*



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Biologically active dual functional zinc-doped biomass-derived carbon dots

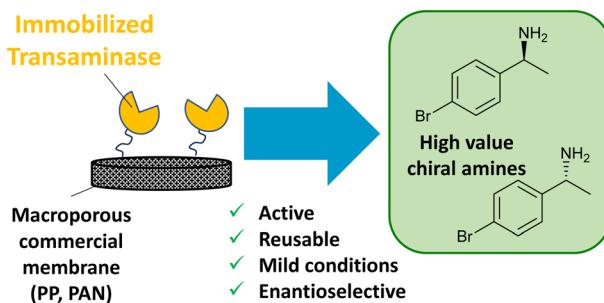
Mohammad Tariq, Mo Ahamad Khan, Hammad Hasan, Sangeeta Yadav, Amaresh Kumar Sahoo* and Md Palashuddin Sk*

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Clay mineral-based sustainable snow contaminant remediation technology

Benilde Mizero, Saba Naderi, Sandeep Bose, Houjie Li and Parisa A. Ariya*

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Membrane-immobilized transaminases for the synthesis of enantiopure amines

Hippolyte Meersseman Arango, Xuan Dieu Linh Nguyen, Patricia Luis, Tom Leyssens, David Roura Padrosa, Francesca Paradisi and Damien P. Debecker*