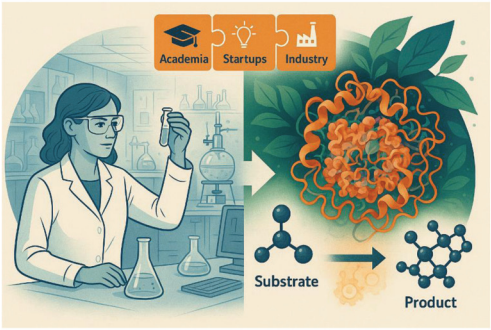
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Azzedine Bousseksou, Toulouse
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LA BIOCATALYSE EN SYNTHÈSE



Une étape marquante pour les *Comptes Rendus* de l'Académie des sciences fut l'accord de co-publication avec le CNRS signé le 3 décembre 2025. Pour prolonger l'initiative prise l'an dernier par les *Comptes Rendus Chimie* visant à renforcer nos liens avec la Société Chimique de France (SCF) et accroître la visibilité des résultats des recherches publiés dans cette revue, nous vous proposons aujourd'hui les synopsis d'articles publiés dans le numéro thématique **« La biocatalyse en synthèse »** qui fut coordonné par Juliette Martin (Proteus-Seqens).

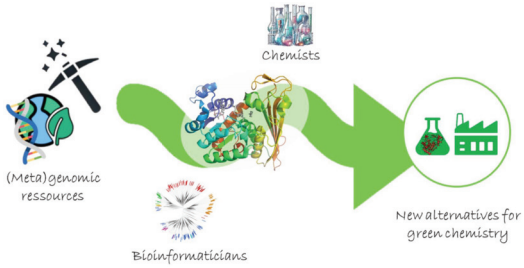
Nous remercions la SCF d'accueillir ces synopsis dans sa revue *L'Actualité Chimique* et, comme toujours, n'hésitez pas à nous faire part de vos avis et suggestions !

Pierre Braunstein

HARNESSING NATIVE ENZYME DIVERSITY FOR BIOCATALYSIS

Célestin Gamonet, Anne Zaparucha, Carine Vergne-Vaxelaire
DOI : 10.5802/crchim.409

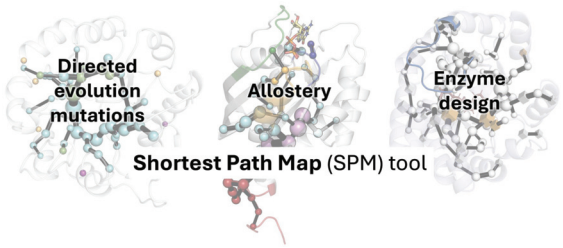
Keywords: Sequence-driven enzyme discovery, Biodiversity, Biocatalysts, Nitrilase, Dioxygenase, CoA ligases, Amine dehydrogenase



SHORTEST PATH MAP CORRELATION-BASED TOOL FOR CAPTURING FUNCTIONALLY RELEVANT ALLOSTERIC NETWORKS AND ITS APPLICATION IN ENZYME DESIGN

Esther Pruna Cortada, Sílvia Osuna
DOI: 10.5802/crchim.389

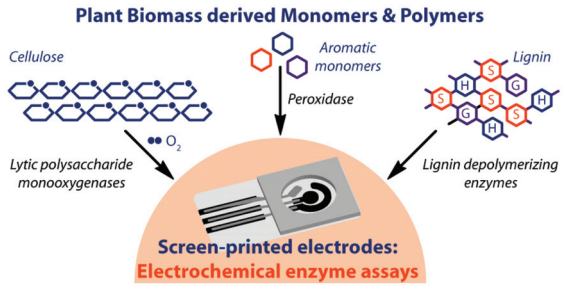
Keywords: Molecular dynamics simulations, Correlation-based tools, Enzyme design, Shortest Path Map, Allostery



SCREEN-PRINTED CARBON ELECTRODES AS A TOOL FOR THE DISCOVERY AND THE CHARACTERIZATION OF NEW ENZYMES ACTIVE ON LIGNOCELLULOSIC BIOMASS

Marjorie Ochs, Bastien Doumèche
DOI: 10.5802/crchim.406

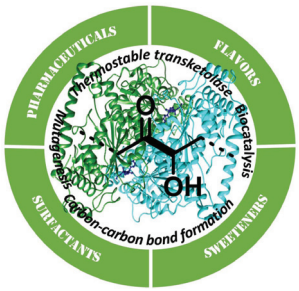
Keywords: Screen-printed carbon electrodes, Paper-based electrodes, Ligninase, Lytic polysaccharide monooxygenase, Oxidase, Detection of aromatic and hydroxycinnamic compounds



EXTENDING THE TOOLBOX FOR ENZYMATIC CARBOLIGATION: SYNTHESIS OF α-HYDROXYKETONES CATALYZED BY THERMOSTABLE TRANSKETOLASE FROM *GEOBACILLUS STEAROTHERMOPHILUS*

Franck Charmantray, Laurence Hecquet
DOI: 10.5802/crchim.376

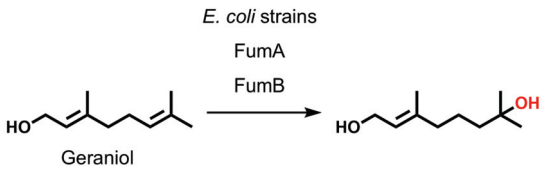
Keywords: Biocatalysis, Thiamine-dependent enzyme, C–C bond formation, Transketolase, Mutagenesis, α-hydroxyketones



REGIOSELECTIVE HYDRATION OF GERANIOL BY *ESCHERICHIA COLI* FUMARASES IN WHOLE-CELL BIOTRANSFORMATIONS

Natalie Härterich, Philip Horz, Yingtong Fan, Benjamin Aberle, Bernhard Hauer
DOI: 10.5802/crchim.407

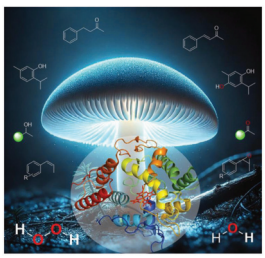
Keywords: Fumarase, Hydratase, Water addition, Geraniol, Terpenes, Alkenes



FROM CHARACTERIZATION TO BIOCATALYTIC APPLICATION OF TWO PEROXYGENASES FROM *COLLARIELLA VIRESCENS* AND *DALDINIA CALDARIORUM*

Angelique Pothuizen, Rosalie I. Wouters, Hugo Brasselet, Thomas Hilberath, Yinqi Wu, Frank Hollmann
DOI: 10.5802/crchim.375

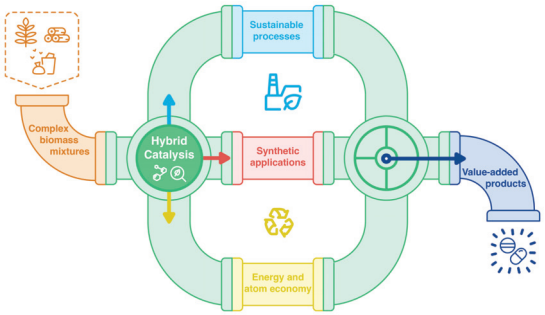
Keywords: Peroxygenase, Oxidation, Hydroxylation, Epoxidation, Sulfoxidation, *Collariella virescens*, *Daldinia caldariorum*



HYBRID CATALYSIS: AN EFFICIENT TOOL FOR BIOMASS VALORIZATION AND FOR THE PRODUCTION OF NEW BUILDING BLOCKS IN CHEMISTRY

Sara Arteche Echeverría, Rénato Froidevaux, Sarah Gaborieau, Anne Zaparucha, Egon Heuson
DOI : 10.5802/crchim.398

Keywords: Hybrid catalysis, Biomass, Platform molecules, Enzymes, Chemical catalysts, Green Chemistry



BIOCATALYSIS, A GREAT TOOLBOX FOR THE UPGRADING OF BIOMASS

Louis Michel Marie Mouterde, Florent Allais
DOI: 10.5802/crchim.405

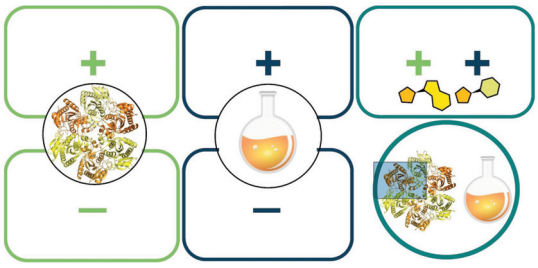
Keywords: Green chemistry, Biocatalysis, Molecular biology, Enzymes, Biomass, Bio-based molecules



NUCLEOSIDE CHEMISTRY: A CHALLENGE BEST TACKLED TOGETHER

Sarah Westarp, Peter Neubauer, Anke Kurreck
DOI: 10.5802/crchim.388

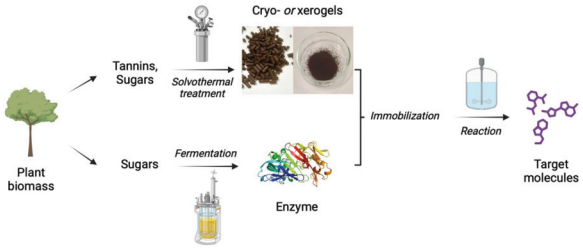
Keywords: Nucleoside synthesis, Biocatalysis, Chemoenzymatic synthesis, *N*-glycosylation, Nucleoside analogue



INNOVATIVE CARRIER MATERIALS FOR ADVANCING ENZYME IMMOBILIZATION IN INDUSTRIAL BIOCATALYSIS

Quentin Hanniet, Coline Mateos, Ludivine Onillon, Awilda Maccow, Thierry Gefflaut, Mélanie Hall, Tamara Reiter, Mélanie Bordeaux, Nicolas Brun, Jullien Drone
DOI: 10.5802/crchim.397

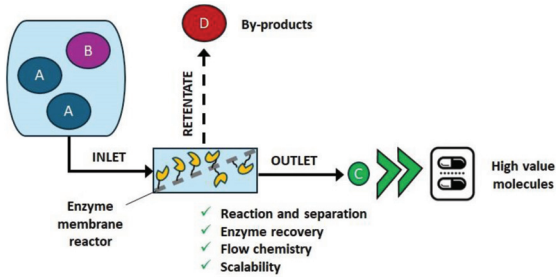
Keywords: Enzyme immobilization, Lipase, Transaminase, Old yellow enzyme, Hydrothermal carbonization, Biobased carrier, Industrial biocatalysis



ENZYME-MEMBRANE REACTORS: RECENT TRENDS AND APPLICATIONS FOR THE PRODUCTION OF FINE CHEMICALS AND PHARMACEUTICAL BUILDING BLOCKS

Hippolyte Meersseman Arango, Patricia Luis, Tom Leyssens, Damien P. Debecker
DOI: 10.5802/crchim.378

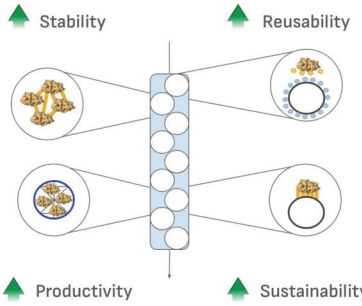
Keywords: Biocatalysis, Membranes, Membrane processes, Intensification, Enzyme immobilization, Pharmaceutical industry



BIOCATALYSIS IN PACKED-BED REACTORS: IMMOBILIZATION AS AN ENABLING TECHNOLOGY

Cristina Lía Fernández Regueiro, David Roura Padrosa, Francesca Paradisi
DOI: 10.5802/crchim.386

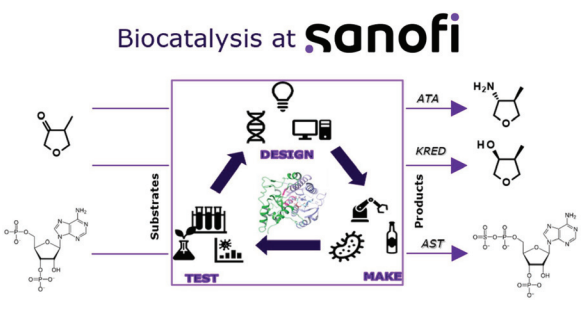
Keywords: Biocatalysis, Enzyme immobilization, Flow biocatalysis, Packed-bed reactors



ACCELERATING THE IMPLEMENTATION OF BIOCATALYSIS IN PHARMACEUTICAL RESEARCH AND DEVELOPMENT PORTFOLIO

Alain Rabion, Davide Panigada, Sebastien Roy, Antony Bigot, Jason S. Tedrow
DOI: 10.5802/crchim.395

Keywords: Biocatalysis, Transaminase, Ketoreductase, Tetrahydrofuran derivative, Chirality, Green chemistry, Enzyme evolution



PRACTICAL EXAMPLES OF BIOCATALYSIS IN INDUSTRY

Amelia K. Gilio, Miguel A. Abdo, Carlos A. Martinez, Andrew T. Palaia, Jovan Livada
DOI: 10.5802/crchim.408

Keywords: Enzyme, Biocatalysis, Hydrolase, Ketoreductase, Imine-reductase, Ene-reductase, Transaminase

