

Reaction Chemistry & Engineering

Bridging the gap between chemistry and chemical engineering
rsc.li/reaction-engineering

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2058-9883 CODEN RCEEBW 10(9) 1953-2180 (2025)

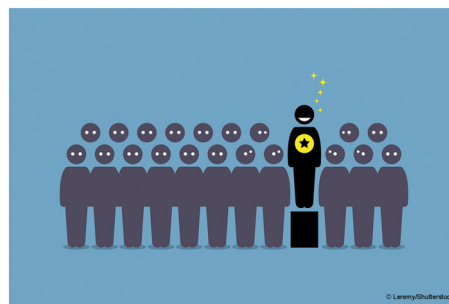


Cover
See Atul Bari,
Haresh Manyar *et al.*,
pp. 1994–2003.
Image reproduced
by permission of
Dr Haresh Manyar
from *React. Chem. Eng.*,
2025, 10, 1994.

EDITORIAL

1962

Outstanding Reviewers for *Reaction Chemistry & Engineering* in 2024

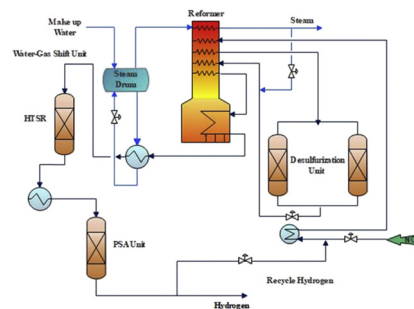


REVIEW

1963

Steam reforming of methane: state of the art and novel technologies

Aimaro Sanna, Dillon Openshaw, Princess Oghotomo and Giuseppe Bagnato*



RSC Applied Interfaces

GOLD
OPEN
ACCESS

Interfacial and surface research
with an applied focus

Interdisciplinary and open access

rsc.li/RSCApplInter

Fundamental questions
Elemental answers

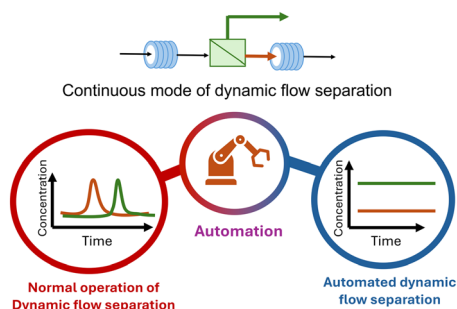


MINI REVIEW

1978

Opportunities for automation in continuous dynamic flow separation

Chetsada Khositanon, Panitan Thakhiew, Charoen Chinwanitcharoen, Kousuke Hiromori and Nopphon Weeranoppanant*

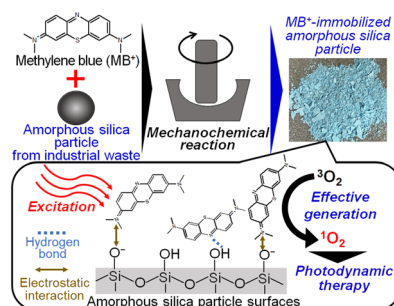


COMMUNICATION

1989

Monomeric immobilization of methylene blue on pure silica particles derived from industrial waste

Reo Kimura, Sunao Chatani, Masahiko Inui, Satoshi Motozuka, Wanyu Shi, Iori Yamada and Motohiro Tagaya*

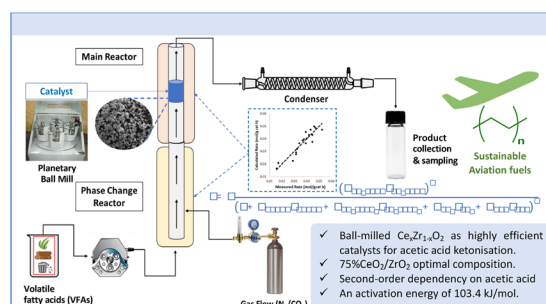


PAPERS

1994

Efficacy of mechanochemically prepared ceria-zirconia catalysts in ketonisation of acetic acid

Krutarth Pandit, Gunjan Deshmukh, Dipti Wagh, Vikram Chatake, Aniruddha Pandit, Supriyo Kumar Mondal, Atul Bari,* Nancy Artioli and Haresh Manyar*



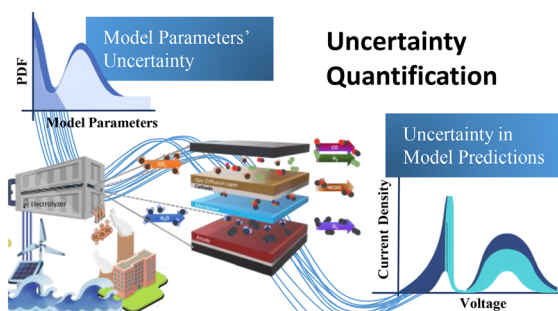
2004

Recyclable biopolymer encapsulated orange peel biochar embedded iron-organic framework composite for selective uptake of methylene blue

Vellaiyapillai Sathiyajothi, Natrayasamy Viswanathan,* Manickam Selvaraj and Mohammed A. Assiri



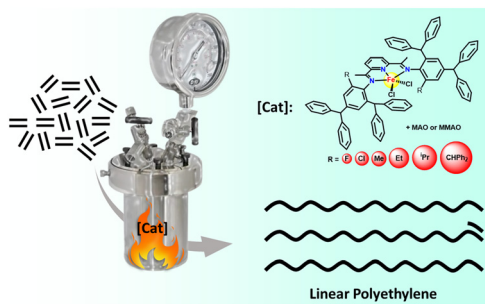
2018



Uncertainty quantification analysis of electrochemical reduction of CO₂

R. K. Hariharan and Himanshu Goyal*

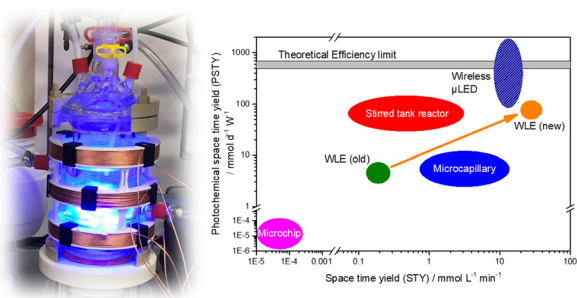
2030



Enhanced thermostability of C₂-symmetrical bis(imino)pyridine-iron precatalysts for ethylene polymerisation *via* a hybrid steric strategy

Shuangshuang Liu, Qiuyu Li, Qaiser Mahmood,* Zhixin Yu,* Yizhou Wang, Ran Zhang, Geng Ren and Wen-Hua Sun*

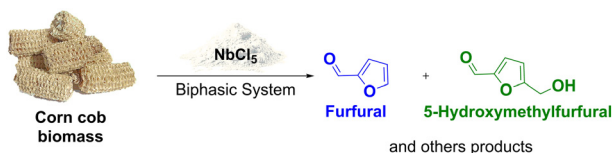
2043



Intensification of heterogeneous photocatalytic reactions using wireless light emitters: the case study of nitrobenzene reduction

Hong T. Duong, Bruno Ortner, Alexander Sutor, Bastien O. Burek and Jonathan Z. Bloh*

2053



Niobium pentachloride in a biphasic catalytic system for valorization of corn cob biomass

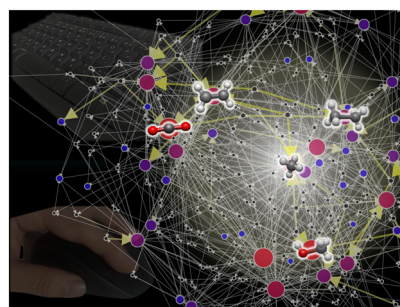
Gabriel Abranches Dias Castro,* Juliana Ribeiro Paes and Sergio Antonio Fernandes*



2062

Web-based graphical user interface for visualizing and analyzing chemical reaction networks

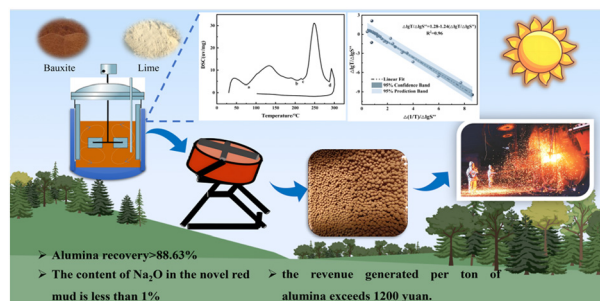
Akihiro Honda, Mikael Kuwahara, Yoshiki Hasukawa, Keisuke Takahashi* and Lauren Takahashi*



2067

An eco-friendly process of high-temperature calcification transformation process for sustainable alumina production from gibbsitic bauxite

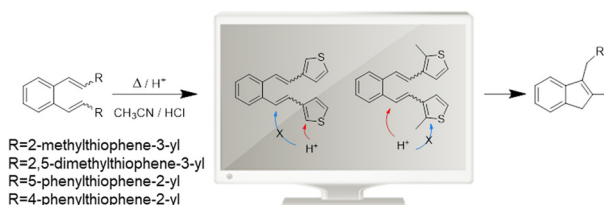
Xin He, Guo-zhi Lv,* Song Wang and Ting-an Zhang



2080

Protonation pattern as a controlling factor of thermal reactions of aryl *o*-divinylbenzenes in acidic media: an integrated experimental–theoretical study

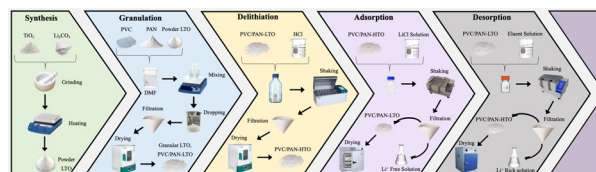
Vilma Lovrinčević, Monika Znika, Jerome Le-Cunff, Ines Despotović* and Dragana Vuk*



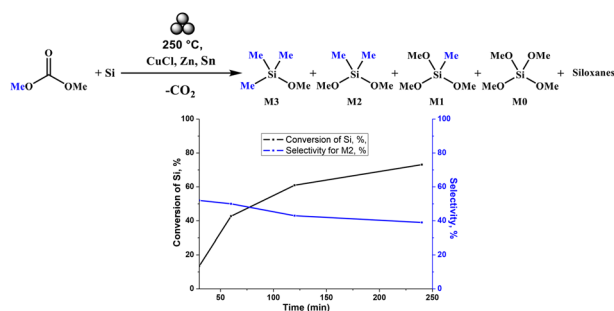
2091

PVC/PAN-immobilized H₂TiO₃ adsorbent: a tailored titanium-based lithium-ion sieve for high-performance lithium recovery

Yaşar Kemal Receptoğlu, Onur İpek and Aslı Yüksel*



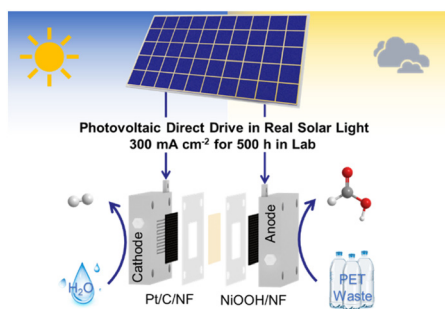
2102



Features of the mechanochemical synthesis of methylmethoxysilanes from silicon and dimethyl carbonate in the presence of promoters

I. N. Krizhanovskiy, M. N. Temnikov,* A. K. Ratnikov, I. V. Frank, M. V. Shishkanov, A. A. Anisimov, A. V. Naumkin and A. M. Muzafarov

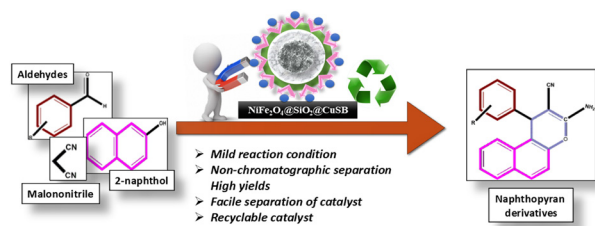
2114



Photovoltaic-driven electrocatalytic upcycling for polyethylene terephthalate plastic waste from simulated electrolysis to photovoltaic direct-driven electrolysis

Jiyi Sun, Sen Yang, Chengcheng Cai, Xin Li, Huijing Ma, Yichan Wen, Yan Fang, Hongyu Song, Xufang Qian,* Yixin Zhao* and Tianfu Wang*

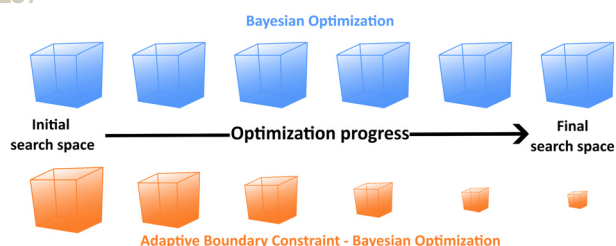
2121



NiFe₂O₄@SiO₂-immobilized copper Schiff base complex as a versatile heterogeneous catalyst for efficient one-pot multicomponent synthesis of bioactive naphthopyran derivatives

Sneha Paul, Thangjam Sanjurani, Anjana Gorai and Pranjit Barman*

2137



Adaptive boundary constraint in Bayesian optimization: a general strategy to prevent futile experiments in complex reaction optimization

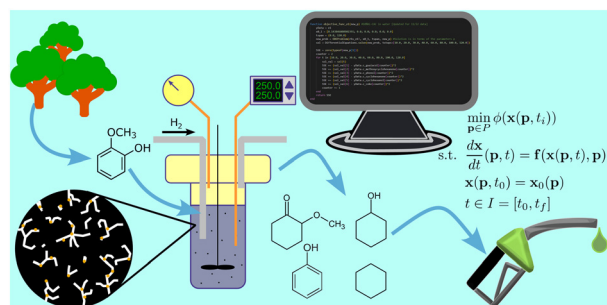
Aravind Senthil Vel,* Julian Spils, Daniel Cortés-Borda and François-Xavier Felpin*



2148

An integrated reaction model of guaiacol hydrodeoxygenation using activated carbon supports: effects of support properties, metals, and solvents

Lei Yu, Robert X. Gottlieb, Jeffrey R. Page, Julia A. Valla* and Matthew D. Stuber*



2170

Gas–solid two-phase flow low-temperature solid-phase method: a novel approach to mechanically synthesize heterometallic–organic frameworks

Neng mei Deng, Yang Liu, Lu lu Tang, Xu cheng Fu* and Jun Zhao*

