

# Reaction Chemistry & Engineering

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## IN THIS ISSUE

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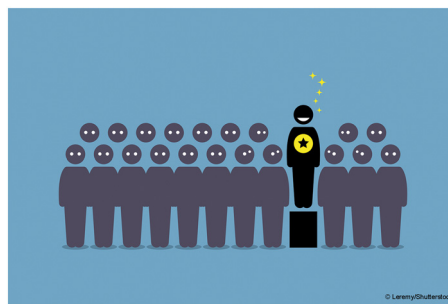
### Cover

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

## EDITORIAL

1962

### Outstanding Reviewers for *Reaction Chemistry & Engineering* in 2024

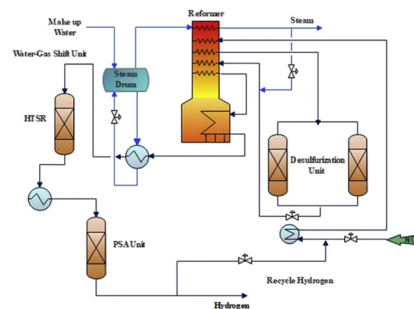


## REVIEW

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

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Fundamental questions  
Elemental answers

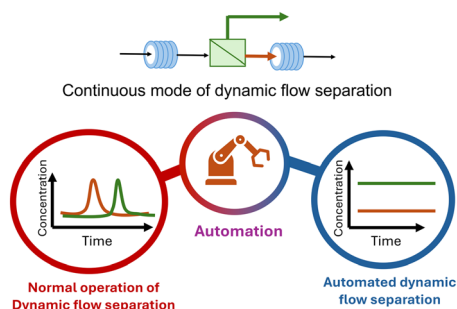


## MINI REVIEW

1978

## Opportunities for automation in continuous dynamic flow separation

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

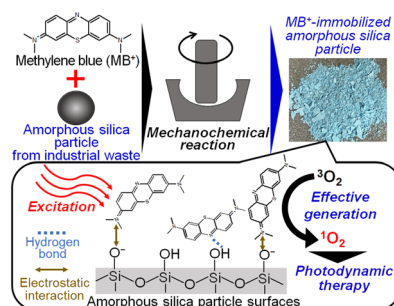


## COMMUNICATION

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\*

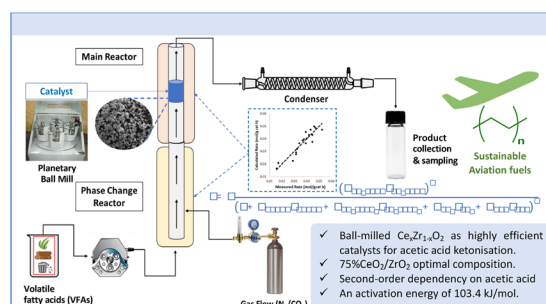


## PAPERS

1994

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

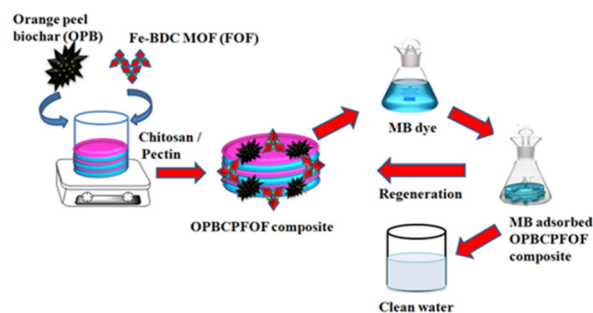
Krutarth Pandit, Gunjan Deshmukh, Dipti Wagh, Vikram Chatake, Aniruddha Pandit, Supriyo Kumar Mondal, Atul Bari,\* Nancy Artioli and Haresh Manyar\*



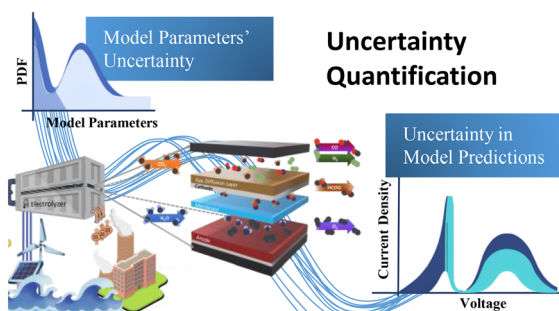
2004

## 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



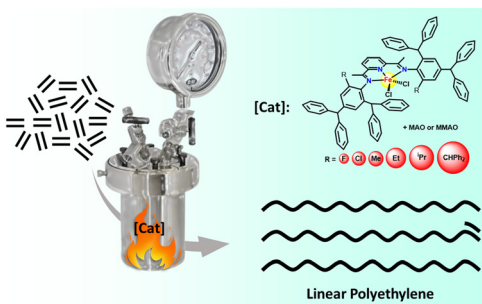
2018



## Uncertainty quantification analysis of electrochemical reduction of CO<sub>2</sub>

R. K. Hariharan and Himanshu Goyal\*

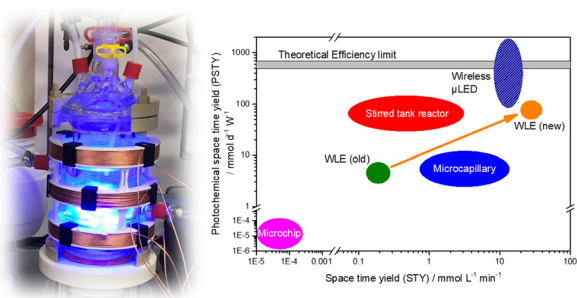
2030



## Enhanced thermostability of C<sub>2</sub>-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\*

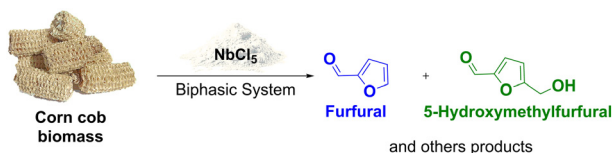
2043



## 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

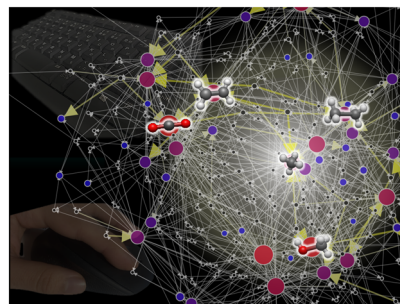
Gabriel Abranches Dias Castro,\* Juliana Ribeiro Paes and Sergio Antonio Fernandes\*



2062

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

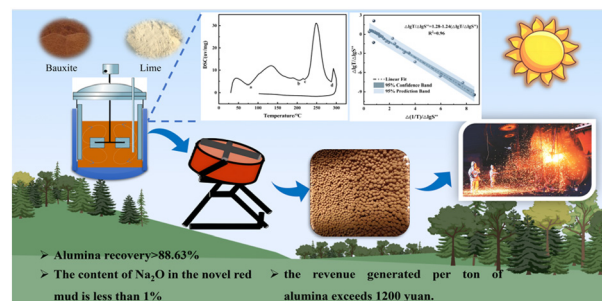
Akihiro Honda, Mikael Kuwahara, Yoshiki Hasukawa, Keisuke Takahashi\* and Lauren Takahashi\*



2067

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

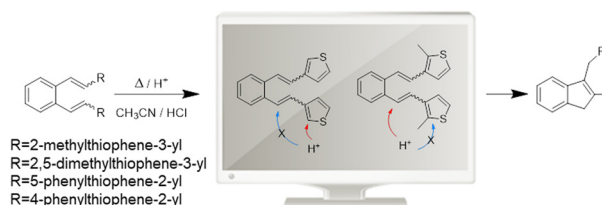
Xin He, Guo-zhi Lv,\* Song Wang and Ting-an Zhang



2080

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

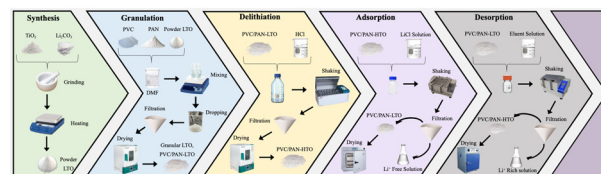
Vilma Lovrinčević, Monika Znika, Jerome Le-Cunff, Ines Despotović\* and Dragana Vuk\*



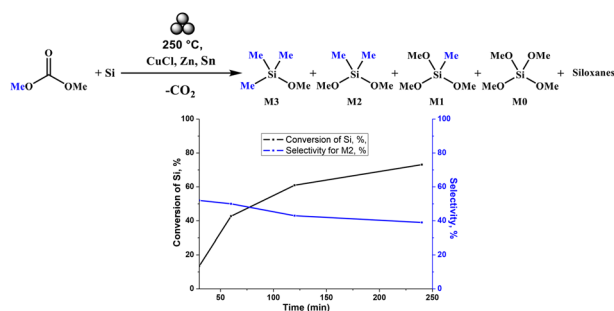
2091

### PVC/PAN-immobilized H<sub>2</sub>TiO<sub>3</sub> adsorbent: a tailored titanium-based lithium-ion sieve for high-performance lithium recovery

Yaşar Kemal Receptoğlu, Onur İpek and Aslı Yüksel\*



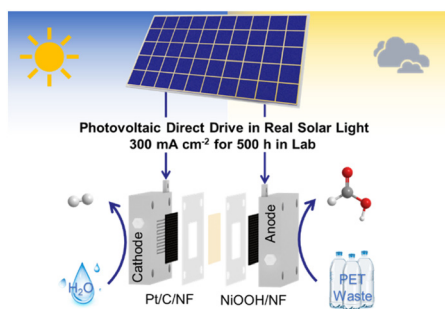
2102



### 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

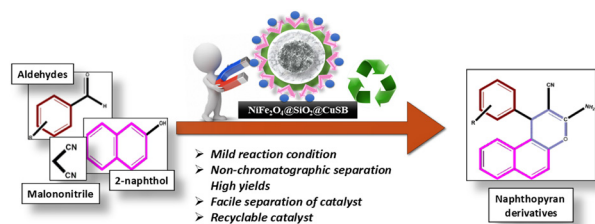
2114



### 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\*

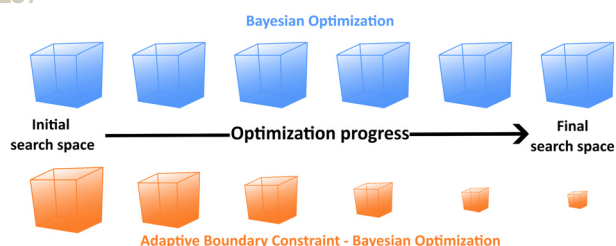
2121



### NiFe<sub>2</sub>O<sub>4</sub>@SiO<sub>2</sub>-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

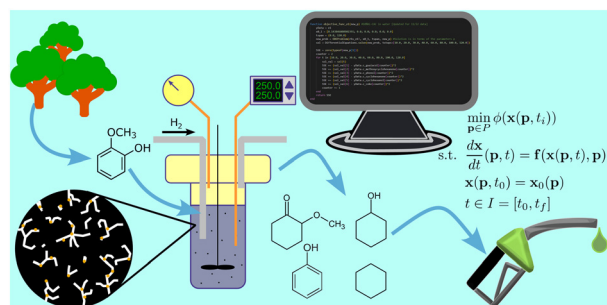
Aravind Senthil Vel,\* Julian Spils, Daniel Cortés-Borda and François-Xavier Felpin\*



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\*

