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### COVER STORY



#### Special issue: Congratulations on changes of JEC

- Quick publication online on ScienceDirect.
- Peer review process in charge by associate editors.
- Reorganization of editorial board.

In this special issue, members of Editorial Board present their latest research results and insights.

### PERSPECTIVES

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#### The energy-chemistry nexus: A vision of the future from sustainability perspective

Salvatore Abate, Gabriele Centi, Paola Lanzafame and Siglinda Perathoner

A glimpse of the emerging directions and routes, priorities and open issues of the changing energy-chemistry nexus and scenario for sustainable energy and chemical production.

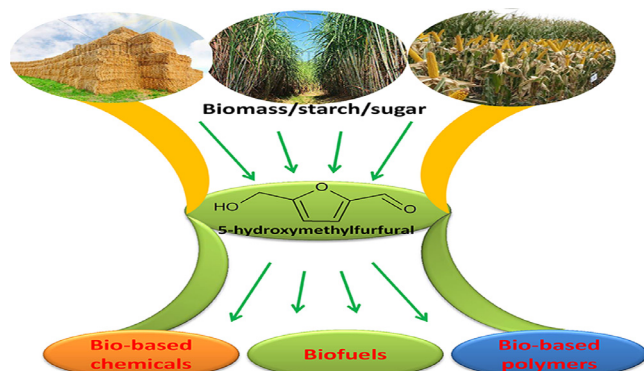


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#### 5-Hydroxymethylfurfural: A key intermediate for efficient biomass conversion

Yajie Zhang, Jian Zhang and Dangsheng Su

5-hydroxymethylfurfural, one of the best candidates, bridging between biomass and substituted fossil fuels or commodity chemicals.

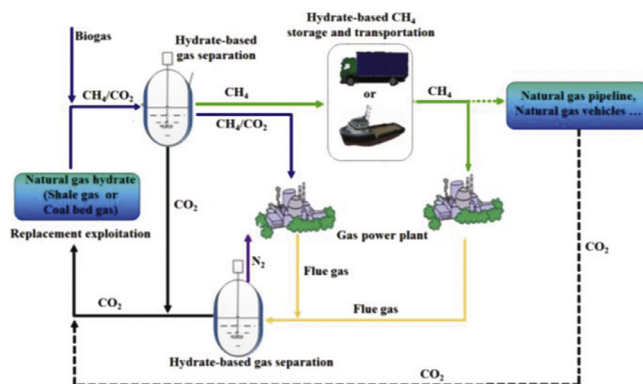


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### Energy-efficient methods for production methane from natural gas hydrates

Jun Chen, Yan-Hong Wang, Xue-Mei Lang and Shuan-Shi Fan

Hydrate Chain Energy System: A novel energy-efficient hydrate production process, including hydrate-based separation, CH<sub>4</sub> storage and transportation of in hydrate form.



## REVIEWS

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### Aligned carbon nanostructures based 3D electrodes for energy storage

Fengliu Lou and De Chen

In this review, we discuss the most recent progress on the preparation and application of 3D electrodes based on aligned carbon nanotubes and aligned graphene for electrochemical energy storages.

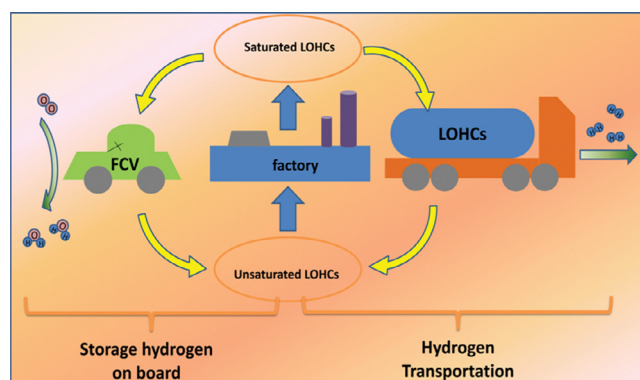


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### Liquid organic hydrogen carriers

Teng He, Qijun Pei and Ping Chen

Liquid organic hydrogen carriers (LOHCs) with high hydrogen content, moderate operational temperature, and the compatibility with existing gasoline infrastructure, hold the promises as hydrogen carriers for both onboard application and large scale long-distance H<sub>2</sub> transportation.

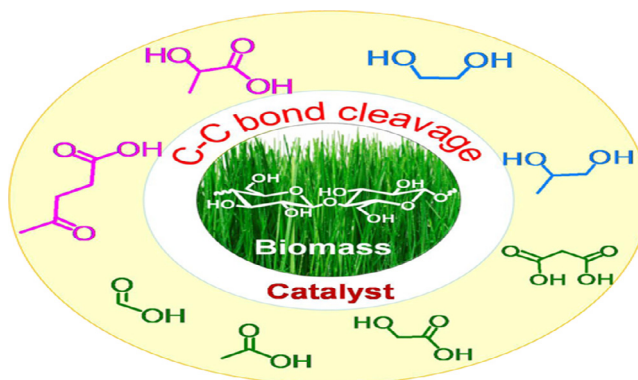


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### Catalytic transformation of cellulose and its derived carbohydrates into chemicals involving C–C bond cleavage

Weiping Deng, Qinghong Zhang and Ye Wang

Recent advances in catalytic transformation of cellulose or its derived carbohydrates into chemicals involving C–C bond cleavage have been reviewed.



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