

SPECIAL TOPIC: CATALYSIS FOR ENERGY AND ENVIRONMENTAL APPLICATIONS

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Young-Woong Suh

Scope of Topic: The catalyst has played a pivotal role in the fields of energy and environment. This special issue introduces recent advances in catalysis with applications to these fields. Review and original research articles of various topics are collected, including hydrogen synthesis, utilization of renewable feedstocks, environmental-friendly chemical processes, CO₂ utilization, clean fuel processing, C1 chemistry, and computational modeling.

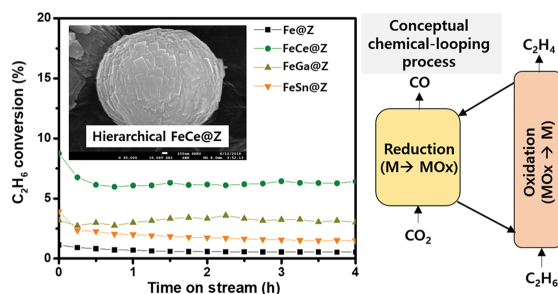
INVITED REVIEW PAPER

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| Jechan Lee, Younhyun Lee,
Soosan Kim, Eilhann E. Kwon,
and Kun-Yi Andrew Lin | 1079 | Catalytic production of hexamethylenediamine from renewable feedstocks |
| Thien An Le, Quoc Cuong Do,
Youngmin Kim, Tae-Wan Kim,
and Ho-Jeong Chae | 1087 | A review on the recent developments of ruthenium and nickel catalysts for CO_x-free H₂ generation by ammonia decomposition |
| Jongkook Hwang | 1104 | A review of synthesis strategies for MOF-derived single atom catalysts |

REVIEW PAPER

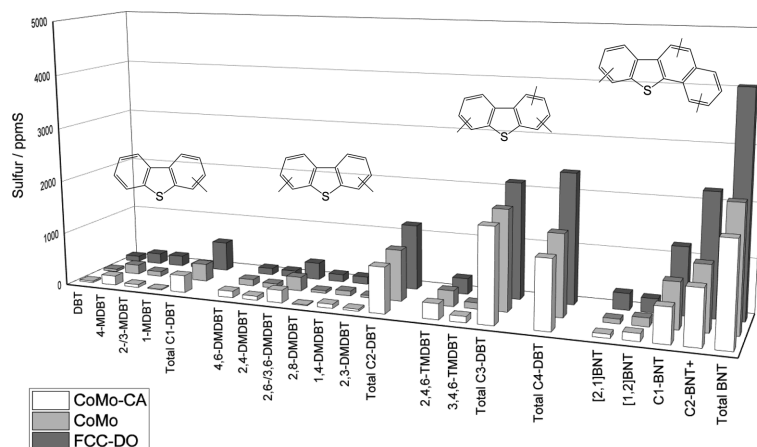
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|--|------|---|
| Seung Jae Kwak, Hyo Seok Kim,
Namjun Park, Myung-June Park,
and Won Bo Lee | 1117 | Recent progress on Al distribution over zeolite frameworks: Linking theories and experiments |
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|---|------|---|
| Min Hye Jeong, Kyung Soo Park,
Dong Ming Shen, Ji Won Moon,
and Jong Wook Bae | 1129 | Dehydrogenation of ethane and subsequent activation of CO₂ on hierarchically-structured bimetallic FeM@ZSM-5 (M=Ce, Ga, and Sn) |
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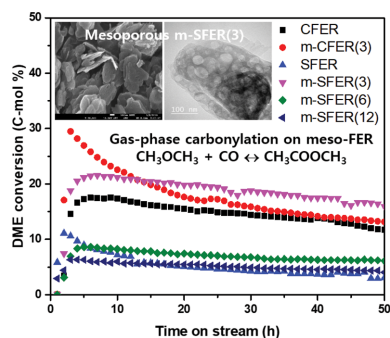


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| Hang Thi Thuy Vu, Viet Le Nam Vo,
and Young-Min Chung | 1139 | Direct synthesis of hydrogen peroxide over palladium catalysts supported on glucose-derived amorphous carbons |
| Jun Beom Hwang, Sarang Kim,
Weon-Sik Chae, Habib Mohiddin Pathan,
Mahadeo Abasaheb Mahadik,
and Jum Suk Jang | 1149 | Engineering of cobalt oxide-integrated nitric acid-functionalized Zr-Fe₂O₃ nanocoral photoanodes for photoelectrochemical water splitting |
| Hyejin An, Sungjoon Kweon,
Dong-Chang Kang, Chae-Ho Shin,
Jeong F. Kim, Min Bum Park,
and Hyung-Ki Min | 1161 | Cascade conversion of glucose to 5-hydroxymethylfurfural over Brønsted-Lewis bi-acidic SnAl-beta zeolites |
| Mahlet Nigus Gebresillase,
Reibelle Quiambao Raguindin,
and Jeong Gil Seo | 1170 | Application of 2-methylfuran and 5-methylfuran for the synthesis of C16 fuel precursor over fibrous silica-supported heteropoly acid-functionalized ionic liquid |

- Jihyun Kim, Jung-Geun Jang, and Yong-Kul Lee 1179 **Reactivity of sulfur compounds in FCC decant oils for hydrodesulfurization over $\text{CoMoS}_2/\text{Al}_2\text{O}_3$ catalysts**



- Byung Chan Kwon, No-Kuk Park, Misook Kang, Dohyung Kang, Myung Won Seo, Doyeon Lee, Sang Goo Jeon, and Ho-Jung Ryu 1188 **CO_2 hydrogenation activity of $\text{Ni-Mg-Al}_2\text{O}_3$ catalysts: Reaction behavior on NiAl_2O_4 and MgAl_2O_4**
- Jae-Won Jung, Kyeongseok Oh, Kwang-Deog Jung, Won Il Kim, and Hyoung Lim Koh 1197 **Selective hydrogen combustion over $\text{Rh-Sn/Al}_2\text{O}_3$ catalysts during propane dehydrogenation**
- Gi Bo Han, Jung Hee Jang, Min Hwei Ahn, Young-Woong Suh, Minkee Choi, No-Kuk Park, Mi Eun Lee, Jae-Kon Kim, and Byunghun Jeong 1205 **Operation of bio-aviation fuel manufacturing facility via hydroprocessed esters and fatty acids process and optimization of fuel property for turbine engine test**
- Euseob Yang, Jun Gyeong Lee, Eun Duck Park, and Kwangjin An 1224 **Methane oxidation to formaldehyde over vanadium oxide supported on various mesoporous silicas**
- Thi Xuan Nguyen, Ji Won Moon, Hyun Seung Jung, Gui Young Han, and Jong Wook Bae 1231 **Contributions of post-synthesized mesopore structures of ferrierite zeolite for gas-phase dimethyl ether carbonylation activity**



CATALYSIS, REACTION ENGINEERING

- Ali Anus, Mahshab Sheraz, Sangjae Jeong, Caroline Mercy Andrew Swamidoss, Young-Min Kim, Muhammad Awais Aslam, Eui-kun Kim, and Seungdo Kim 1240 **The role of contact time and input amount of 1,1,1,2-tetrafluoroethane (HFC-134a) on the catalyst lifetime and product selectivity in catalytic pyrolysis**
- Harpreet Kaur, Satnam Singh, and Bonamali Pal 1248 **Impact of $g\text{-C}_3\text{N}_4$ loading on NiCo LDH for adsorptive removal of anionic and cationic organic pollutants from aqueous solution**
- Reza Mahdavi and Seyed Siamak Ashraf Talesh 1260 **Selective degradation of mixed dye pollutant in aqueous phase in the presence of $\text{ZnO/Al}_2\text{O}_3$ as sonophotocatalysis based on central composite design**

- Seok Hwan Jeon, Kwiyong Kim, 1272 **Electrochemical synthesis of ammonia from water and nitrogen: A Fe-mediated approach**
Hoon Cho, Hyung Chul Yoon,
and Jong-In Han
- Mridushmita Baruah, 1277 **Synthesis, characterization of novel Fe-doped TiO₂ activated carbon nanocomposite towards photocatalytic degradation of Congo red, *E. coli*, and *S. aureus***
Soremo Likongthung Ezung,
Aola Supong, Parimal Chandra Bhomick,
Suraj Kumar, and Dipak Sinha