



# *catalysts*

IMPACT  
FACTOR  
3.465

Dear Colleagues,

I am pleased to announce the winners of the 2018 Best Paper Award. Two papers were selected for this award: one research article and one review. All papers published in 2016 in *Catalysts* were considered for the award. An Evaluation Committee considered the originality and significance of the papers as well as the citations and downloads in 2017 and 2018 in choosing the winners. This year's winners are "Charge Transfer Mechanism in Titanium-Doped Microporous Silica for Photovoltaic Water-Splitting Applications" by Wendi Sapp, Ranjit Koodali, and Dmitri Kilin in the research paper category and "Catalysts for the Selective Oxidation of Methanol" by Catherine Brookes, Michael Bowker, and Peter P. Wells in the review paper category.

The contribution by Sapp and coworkers used density functional theory to elucidate the mechanisms underlying photocatalytic water splitting on titanium-doped microporous silica. Most significantly, they showed that the porous silica structure with embedded  $Ti^{4+}$  ions on the inner pore wall contains electron and hole trap states that could facilitate a chemical reaction. In this way, they showed that the silica substrate played an important role in the electron/hole dynamics of the system.

## 2018 BEST PAPER AWARD WINNERS

The contribution by Brookes and coworkers reviewed the literature on the mechanism for the selective oxidation of methanol to formaldehyde on iron molybdate catalysts. In particular, they addressed the debate on the relative roles of stoichiometric  $Fe_2(MoO_4)_3$  and excess  $MoO_3$ , both of which are present in the most active catalysts. From literature results and new experimental results, they conclude that the key factors affecting methanol selective oxidation are that the surface is dominated by Mo oxide and that the surface must tolerate a degree of oxygen loss without permanent loss of structural integrity.

Congratulations to the authors of these two outstanding papers!

Keith L. Hohn, *Editor-in-Chief*

*Catalysts* (ISSN 2073-4344) Impact Factor 3.465 (2017 Journal Citation Reports®).

Please find more information on *Catalysts* here: <http://www.mdpi.com/journal/catalysts>.



*Catalysts* Editorial Office  
MDPI, St. Alban-Anlage 66  
CH-4052, Basel, Switzerland

[catalysts@mdpi.com](mailto:catalysts@mdpi.com)  
[www.mdpi.com/journal/catalysts](http://www.mdpi.com/journal/catalysts)

