

## Pd Palladium Catalysis: A Special Issue Aiming to Cross Borders

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Given the large number and the broad variety of chemical reactions that are mediated by palladium—from organic synthesis to steam reforming—a Special Issue on such a topic may seem very ambitious. After all, the 2010 Nobel Prize in chemistry was partly awarded for the carbon-carbon coupling reactions mediated by palladium species; and numerous excellent reviews on Pd catalysis, and its numerous subtopics, are published on a regular basis. Yet, we wrote last summer to selected eminent colleagues inviting them to take part in the present work, the scope of this Special Issue was not to produce a comprehensive coverage of the catalysis chemistry of this unique, noble metal, but to forge new links and relationships between the different catalysis communities and to encourage further collaboration and cross fertilization.

Palladium-catalyzed reactions are now routinely employed by industry to make valued drugs, synthons, liquid crystals, polymer precursors, fragrances, hormones, and many other valued chemical products. In addition, catalytic converters using palladium-based catalysis to abate pollutants already equip millions of vehicles worldwide. Palladium catalysis will now extend into reactions and processes that will be crucial in making our common development truly sustainable, such as biomass valorization and energy conversion.

Given the standing of contributing research Groups, the scientific quality of the received articles was somehow expected. We were rather encouraged by the number of colleagues who accepted to submit a manuscript for peer-review. In these hectic Internet days, when researchers are faced by an ever increasing number of duties, it is heartening to note that 30 research papers now comprise this issue. Most papers describe original research achievements using different chemical strat-

egies that will impact the way in which many useful molecules will be synthesized, how biomass can be upgraded from a raw material, how pollutants can be converted into non-harmful derivatives, and how visible light can be used to induce clean chemical syntheses. A few, great reviews by some of the leading experts in Pd catalysis complement very well this research endeavor.

Only time will tell whether the outcome of this truly global effort (contributions originate from India, China, Russia, Israel, Iran, several EU countries, the US, Norway, and Japan) will

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**Paolo Fornasiero** is associate professor in Inorganic Chemistry at the University of Trieste where he leads the materials, environment, and energy (*mee*) research Group. He is also responsible of a research unit associated with the CNR Institute of Chemistry of Organometallic Compounds. His research aims at the design and development of multi-functional metal-oxide nanosystems for advanced applications in energy conversion and environmental heterogeneous catalysis. Amongst the latest achievements, his team has unveiled the role of the metal-support interface in ceria-supported catalysts.



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meet its ambitious goal to forge new relations between different communities in chemical research, and to encourage collaboration. It is somehow reassuring, in this respect, to notice that several articles of the Special Issue published online ahead of print have already been quoted several times in the chemical literature.

In conclusion, we thank the authors for submitting their excellent work, the referees and the editors of *ChemCatChem* for their purposeful and efficient cooperation.

Enjoy your reading!

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Guest Editors

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