Special Issue

Plasma Assisted Photocatalysis for Activation of Small Molecules

Message from the Guest Editors

This special issue will be focused on a combination of non-thermal plasma and catalysis in an attempt to improve the selectivity and/or energy efficiency of plasma chemical transformations. Until recently, catalysts used in plasma-assisted catalytic processes are mostly "thermal" catalysts, i.e. catalysts used at nonplasma conditions and higher temperatures for similar reactions. This issue invites original contributions and review papers from authors to demonstrate the efficient use of semiconductor and plasmonic-type heterogeneous catalysts in combination with nonthermal plasma as well as photochemical transformations on plasmonic nanoparticles for conversion of small molecules. Special attention will be devoted to the development of modern time-resolved characterization of non-thermal plasmas and photocatalytic reactions to study kinetics of ultra-fast chemical reactions.

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Deadline for manuscript submissions

closed (1 November 2020)



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