



Catalysts in 1D and 2D Materials—Their Role in Synthesis, Properties and Applications

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Message from the Guest Editors

Over the last two decades, the research on 1D and 2D materials has expanded rapidly. It is up to date led by carbon nanotube and graphene research but complimented by other hexagonal lattice materials. These materials are synthesized via processes that crucially require catalysts to enable and control production, and enhance production rates. The final product may either still retain catalyst particles or be purified thereof – in either case, the resultant material's properties will be affected significantly. The issue will cover the whole bandwidth from the catalysts' role for synthesis—the effects of different catalyst sources, non-iron catalysts, control of catalyst size, on-substrate or substrate-free catalyst systems, pre-synthesis or in-situ catalyst production, up to their role as residue in the final material—their effects on the material's physical properties, characterization methods, and processes for their removal. Computational studies on catalysts within the above scope are also welcome.

