



## Plasma for Energy and Catalytic Nanomaterials

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### Message from the Guest Editors

The plasma method allows thermodynamically and dynamically difficult reactions to proceed at low temperatures due to the activation of energetic electrons. Compared to conventional preparation methods, it has been proven to be a fast, facile and environmentally-friendly method for synthesizing highly-efficient nanomaterials. The synthesized nanomaterials generally show enhanced metal-support interactions, small sizes of metal nanoparticles, specific metal structures, abundant oxygen vacancies, etc. Therefore, they exhibit high catalytic activity and stability in energy and catalytic applications.

In spite of the growing interest in plasma for energy and catalytic nanomaterials, synthesis mechanisms of nanomaterials using plasma still remains obscure due to the complicated physical and chemical reactions during plasma preparation. A great deal of research is needed to better understand the controllable preparation mechanisms of the plasma method and widen its application scope in synthesizing energy and catalytic nanomaterials.





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