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## Recent Advancements in Nanostructured Electro/Photocatalysts for Environmental and Energy Applications

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Deadline for manuscript  
submissions:

**closed (30 April 2025)**

### Message from the Guest Editors

Nanostructured materials as “electrocatalysts and photocatalysts” have shown great potential as electro-photocatalysts for environmental and energy applications due to their unique physical and chemical properties such as high surface area, enhanced charge transport, tunable bandgap and Improved stability over bulk materials. Electrocatalysts play crucial roles in various energy generation, storage, and conversion applications, such as fuel cells, batteries, and electrolyzers. Electrocatalysts with high levels of activity improve energy efficiency and enhance performance by reducing the potential for electrochemical reactions.

On the other hand, photocatalysts are materials that can harness light energy to drive chemical reactions in various environmental interests such as (i) air purification—removing harmful pollutants such as VOCs, NO<sub>x</sub>, and SO<sub>x</sub>; (ii) water purification—removing harmful pollutants such as pharmaceuticals, dyes, pesticides, herbicides etc.; (iii) self-cleaning surfaces; (iv) renewable energy—photoelectrochemical water splitting, etc.



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## Message from the Editor-in-Chief

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