



# Editorial: Porous Nanomaterials for Superior Energy Storage Devices

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## Editorial on the Research Topic

### Porous Nanomaterials for Superior Energy Storage Devices

The energy issue becomes one of the three major problems facing the society at present. With the rapid growth of global energy demand, the existing fossil fuel-based infrastructure is no longer able to meet the current needs of society. Therefore, alternative technologies should be developed and mobilized, especially those in the development of efficient energy conversion and storage technologies. While advanced energy conversion-storage concepts and renewable energy systems have been the focus of considerable attention in the past decade.

This special issue—mainly focuses on the porous nanomaterials for superior energy conversion and storage devices—consists of three papers spanning topics detailing the porous nanofiber as counter electrode for dye-sensitized solar cells, microwave-assisted synthesis of porous composite for energy conversion and heteroatom decorated mesoporous materials for photocatalysis. Sun et al. synthesized MoS<sub>2</sub>-carbon nanofiber composites with electrospinning technique as counter electrode for dye-sensitized solar cells, achieving a maximum efficiency of 5.7%. Yi et al. utilized microwave-assisted method to obtain porous MoS<sub>2</sub>-graphene composite to realize a high conversion efficiency in solar cells, demonstrating that the improvement of conversion efficiency is due to the high electrical conductivity and catalytic ability of composite. Ni et al. developed nitrogen and copper co-doped carbon dots/mesoporous WO<sub>3</sub> nanocomposite to realize a broad-spectrum response, which facilitate the photocatalytic reaction under UV-vis-NIR light irradiation.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

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guide to applications in the synthesis of porous nanomaterials for energy conversion and storage field.

**Conflict of Interest:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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