# Editorial

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**Biographical notes:** Yue Zhang has been a Professor at the Beijing University of Science and Technology since 1995. He received his BS from the Wuhan University (1978–1982), PhD from the University of Science and Technology Beijing (1987–1993) and holds a postdoctoral position at the Wuhan University of Technology (1993–1995). He has been awarded the China National Funds for Distinguished Young Scientists. He conducted more than 45 major research projects from the Ministry of Science and Technology of China, National Natural Science Foundation of China, etc. He has published more than 400 SCI-cited papers and more than 3,000 citations.

Nanomanufacturing provides us with new, precise, low expensive, high energy efficient and flexible ways of making products. Like steam engines, electricity, and transistors, nanotechnology is a powerful and enabling technology, with disruptive impacts in many aspects of our daily live. Increasing energy conversion efficiency reduces carbon dioxide emissions per unit of output, thereby directly supporting global climate change mitigation.

There are rapid developments on the manufacturing of energy devices in recent years, such as new nanostructured materials, new manufacturing techniques, new types of devices for energy harvesting and storages. Self-powered systems and flexible devices are examples of recent achievements in this rapid developing field.

In this special issue, researchers in the field of nano energy presented their recent progresses in material synthesis and characterisation, modulation of material properties, device fabrication and integration. The aim of this special issue is focused on the manufacturing new materials with high quality for energy application and new devices for high efficient energy harvesting and storage.

The content of this special issue is arranged in the follow sections:

- new materials and new synthesis methods for energy applications
- characterisation techniques and mechanism
- modulations of material properties
- new development in photo detectors
- new development in solar cells
- triboelectric nanogenerator and supercapacitor.

I hope that this issue will help the readers to have a better understanding of the recently developments in the manufacturing of energy related materials and devices.

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