Editorial

Luminescent Nanomaterials

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Luminescent Nanomaterials, a newly emerging field at the frontier of science, provide challenges to both fundamental research and breakthrough development of technologies in various areas such as electronics, photonics, nanotechnology, display, lasing, detection, optical amplification, fluorescent sensing to biomedical engineering, and environmental control. Luminescent nanomaterials come in many forms such as nanoclusters, quantum dots, tubes, wires, cages, balls, and nanostructured units. They can be made up of rare earth elements, semiconductors, metals, oxides, and inorganic and organic polymers; however, the investigation on the synthesis-structure-property relationship is still in infant stages. In general, luminescent nanomaterials have unique properties which greatly differ from those of microscale and bulk materials.

The aim of this special issue on “Luminescent Nanomaterials” is to bring to readers up-to-date advances in the fundamental understanding of the luminescent mechanism related to nanosizes and nanostructures, up-conversion effect, energy transfer for enhanced emission, transient spectroscopy on a femtosecond time scale of silver plasmon. Furthermore, this special issue aims at stimulating apply-oriented research in the technologies above mentioned. Therefore, this special issue, covering a broad range of topics on luminescent nanomaterials, should be of interest to its readership.

Finally, we would like to acknowledge those who assisted the editing of this issue, including our authors, reviewers, the staff of Hindawi Publisher, and Dr. Michael Z. Hu Editor-in-Chief of Journal of Nanomaterials. Professor Minh, Head of guest editors, wants to thank each guest editor for the achievement of this special issue on “Luminescent Nanomaterials”.

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