Editorial

National Conference on Advances in Material Science for Energy Applications

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Aims and Scope. The National Conference on “Advances in Material Science for Energy Applications” (AMSEA) was organized by University of Petroleum and Energy Studies, Dehradun, India, for the first time. The aim of the conference was to bring experts from all over the country to showcase their contributions towards the advances in the science of materials for energy applications. In addition, the conference intended to educate the people about the usefulness of solar energy and nuclear energy in filling the gigantic gap between the energy production and consumption. The conference was a good platform for young scientists, engineers, research scholars, and students to exchange their thoughts and ideas and to encourage further development of the existing knowledge on energy harvesting.

During the two-day conference (9-10 January 2014), several important topics related to fabrication and characterization of materials for energy applications such as “Materials/techniques for solar energy applications,” “Advances in thin film technology,” “Optically-active nano-structured materials,” “Advances in nanofluids,” “Advanced materials for nuclear energy applications,” and “Advances in synthesis and characterization technique” were covered in lectures and poster sessions. The conference started with distinguished and plenary lectures delivered by leading experts in Material Science from reputed institutes like IITs and universities in the country. In addition, each individual session began with invited talks of well-known researchers in the respective

fields. The conference was a great success, having a significant number of participants contributing their papers to the sessions.

The published proceeding papers cover topics on energy storage, solar cell, radiation detector, and materials for sensor applications, industrial lubricants, and so forth. Authors of these papers have shown the significance of the materials and methods or technology developed. For example, V. Nayak et al. have studied BeH₂ as hydrogen storage material. M. Tomar et al. have investigated various materials for NO₂ and SO₂ gas sensors. J. Aggarwal et al. have proposed a prototype device for solar harnessing. There is also a report on materials for semiconductor radiation detector by A. Garg et al. Other research groups have developed and characterized various materials having direct or indirect impact on energy applications.

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