Editorial: themed issue

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In order to popularize and promote teaching of solid-state chemistry in the country, an Indian Association of Solid State Chemists and Allied Scientists (ISCAS) was established on 4 March 1998 with its headquarters at Jammu University campus. Since its inception, the society has been doing various types of academic activities such as workshops, seminars, invited lectures, and so on. The association has been successful in bringing together on one platform the practitioners of solid-state chemistry and allied areas in the country. It has served the subject and the scientists working in this area in many ways.

Establishment of ISCAS Institute of Solid State and Materials Science at Jammu University is one of such unique efforts. The society organizes national conferences biannually, as well as seminars, symposia and workshops at various locations in India. The growth of ISCAS has been phenomenal and we are sure that with the cooperation of researchers, teachers and students, the society will achieve its objective.

Solid-state chemistry is a backbone of materials science. Research on advanced materials makes a strong connection between different fields in basic science, engineering and medical science. The 9th national conference on *Solid State Chemistry and Allied Areas* was organized by the Bhaskaracharya College of Applied Sciences (Delhi University, Delhi, India) on 8–10 May 2015. The conference covered a wide range of interdisciplinary topics on various aspects of solid-state chemistry and advanced materials, such as nanomaterials, catalysts, active packaging, high-energy materials, cementations, materials, nuclear materials, carbon materials, chalcogenides, superconductors, conducting polymers, photovoltaics, sensors, luminescence, liquid crystals, modeling and molecular simulation, biomaterials, biosensors, drug delivery, tissue engineering, bioplastics, organ transplants, dentistry, bioimplants, materials for engineering and environment, nanocomposites, biodegradable polymers, etc.

Materials technology will produce products, components and systems that are smaller, smarter, multifunctional, environmentally compatible, more survivable and customizable. These products will not only contribute to the growing revolutions of information technology and biology but will have additional effects on manufacturing logistics and personal lifestyles. Recent progress in nanotechnology has opened up the door to the production of much cheaper and more efficient solar cells for the production of green energy. The conference brought together solid-state chemists and scientists from industry, universities and research institutes to discuss modern academic and industrial aspects of various fields of development in these areas. This provided a

forum for researchers and academics to exchange state-of-the-art research and development and identify research needs and opportunities in these emerging fields.

The conference was attended by a large number of researchers from the country and abroad. The conference was inaugurated by a renowned scientist Professor Krishan Lal, former president of the Indian National Science Academy, New Delhi, India, and the keynote lecture was given by Professor A. K. Ganguli, Director of the Institute of Nanoscience and Technology, Punjab, India. The valedictorian lecture was given by Dr R. K. Sharma, Director of the Solid State Physics Laboratory, New Delhi, India.

Three parallel sessions were conducted. A large number of speakers gave invited lectures; to name a few: Professor I. B. Sharma, Professor N. S. Gajbhiye, Professor M. Swaminathan, Professor Nand Kishore, Professor L. J. Paliwal, Professor K. S. Rane, Professor R. P. Sharma, Professor Narsingh B. Singh (USA), Professor K. D. Mandal, Professor A. K. Bakshi, Professor B. Bhattacharya, Professor A. P. Gupta, Dr N. L. Mishra, Professor Vinay Gupta, Professor R. Nagrajan, Professor S. S. Umare, Professor B. T. Thakker, Dr S. Rai, Dr K. P. Kariya, Dr Saroj K. Shukla, Professor S. Annapoorani and others. A large number of oral and poster presentations were also made.

Dr Saroj K. Shukla, convener of the conference, and his entire team worked day and night to make the conference a grand success. The society is thankful to the authorities of Delhi University for their support.

A large number of papers were submitted for publication in the themed issue of *Emerging Materials Research*. However, only the following papers could be accepted for publication.

Pandey, N, Surana S, Shukla SK and Singh NB (2017) Methylene blue removal on nano-Fe₃O₄/poly(vinyl alcohol)/polyacrylamide hydrogel. *Emerging Materials Research* **6**(2): 305–313, <https://doi.org/10.1680/jemmr.15.00061>.

Meenatchi V, Agilandeswari R and Meenakshisundaram SP (2017) Optical and morphological studies of 3-methyl-2,6-diphenylpiperidinium picrate. *Emerging Materials Research* **6**(2): 301–304, <https://doi.org/10.1680/jemmr.15.00094>.

Sharma S, Puri NK and Gupta V (2017) Photovoltaic response of hydrothermally derived BFO ceramics. *Emerging Materials Research* **6**(1): 151–154, <https://doi.org/10.1680/jemmr.15.00065>.

Tyagi P, Sharma A, Tomar M and Gupta V (2017) Low-temperature SnO₂-based conductometric SO₂ gas sensor. *Emerging Materials Research* **6(1)**: 3–7, <https://doi.org/10.1680/jemmr.15.00066>.

Tiwari G, Pandey V and Ojha RP (2017) Prediction of drug-binding sites in HCV NS5B polymerase: MD simulation study. *Emerging Materials Research* **6(2)**: 239–248, <https://doi.org/10.1680/jemmr.15.00057>.

Pandey P, Pandey A and Shukla NK (2017) Surface modification by self-assembled monolayer and carbon nanotubes. *Emerging Materials Research* **6(1)**: 15–20, <https://doi.org/10.1680/jemmr.15.00046>.

Sharma D and Tewari SN (2017) Electronic structure and vibrational spectra of 1OCB liquid crystal: a DFT study. *Emerging Materials Research* **6(2)**: 322–330, <https://doi.org/10.1680/jemmr.15.00052>.

Naqvi FK, Beg S and Al-Areqi NAS (2017) AC impedance and cyclic voltammetric investigations on BIPBVOX solid electrolyte. *Emerging Materials Research* **6(2)**: 348–355, <https://doi.org/10.1680/jemmr.17.00032>.

Thaker B, Limbachiya N, Patel K and Patel N (2017) Calamitic liquid crystals involving fused ring and their metallomesogens. *Emerging Materials Research* **6(2)**: 331–347, <https://doi.org/10.1680/jemmr.15.00060>.

Thakral P, Kukreti S and Bakhshi AK (2017) In silico metaheuristic tailoring of quaternary copolymers. *Emerging Materials Research* **6(2)**: 378–386, <https://doi.org/10.1680/jemmr.15.00054>.

Paliwal LJ, Kariya KP and Bobde R (2017) Synthesis and ion-exchange studies of resins derived from 2,2'-dihydroxybiphenyl-diamine-formaldehyde. *Emerging Materials Research* **6(2)**: 362–368, <https://doi.org/10.1680/jemmr.15.00056>.

Singh D, Rawat K, Pal P and Shishodia PK (2017) Structural and optical properties of Cr-doped ZnO thin films. *Emerging Materials Research* **5(2)**: 182–188, <https://doi.org/10.1680/jemmr.15.00044>.

Rawat K, Manisha C and Shishodia PK (2017) Investigation of CuInSe₂ thin films deposited by laser ablation method. *Emerging Materials Research* **5(2)**: 259–263, <https://doi.org/10.1680/jemmr.15.00045>.

Bagga MK, Gadi R and Singh G (2017) Ficus racemosa as corrosion inhibitor for mild steel in acid medium. *Emerging Materials Research* **6(1)**: 117–123, <https://doi.org/10.1680/jemmr.15.00055>.

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