



Editorial

We are pleased to bring out this Special issue comprising some of the papers that were presented in the International Conference on Recent Advances in High Pressure Science and Technology (ICReAcH-2022), held in an online mode at the Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, India, during 8–10 February 2022. This Conference was co-hosted by the Materials Research Society of India (MRSI), and we are grateful to the Indian Academy of Sciences for agreeing to bring out this Special issue. In this Conference there were 3 Plenary Lectures, 23 Invited Talks, 28 Oral and 22 Flash Presentations, out of which 15 were from abroad (9 Europe, 5 US, 1 Japan). There were talks on high pressure studies on multiferroics, phase transformations, first principles computations, crystallography, thermodynamics of alloying, high temperature superconductivity, plastic strain induced phase transformations using rotational diamond anvil cell, high pressure synthesis of super hard materials, among other things. More details of talks given in the Conference can be found in a Newsletter brought out by IGCAR (April 2022, <http://www.igcar.gov.in/newsletter/igc132.pdf>). The current Special issue has only 14 out of the 76 presentations, since many of the works were already published, or the authors had planned to publish elsewhere, etc. Moreover, the possible number in this Special issue was limited to only 20 selected articles. The feedback from the participants at the end of this three-day Conference, especially the students, was overwhelmingly positive. Due to the world-wide Covid-19 pandemic, there were not many opportunities for scientists and students to present their works and interact with experts in the field and peers. No doubt ICReAcH-2022 was a good platform to interact with other workers and know what is going on in the various laboratories in the field of High Pressure Science and Technology, though an offline, in-person-in-flesh-and-blood Conference would have perhaps given a better feel and scope for more interaction. We do not have many Conferences in this specialized field, especially in India, probably since the number of scientists working in this area is modest. Even the popular international AIRAPT Conference that was to be held in 2021 was postponed due to the pandemic to 2023 to be held at the same venue in Edinburgh, UK. Going by the huge response to ICReAcH-2022, we believe there is scope for a more frequent Conference in this subject area to be held perhaps every year, in India or elsewhere.

Guest Editors:

T R Ravindran
IGCAR, Tamil Nadu

Awadhesh Mani
IGCAR, Tamil Nadu

N V Chandra Shekar
IGCAR, Tamil Nadu

Avesh K Tyagi
BARC, Mumbai