2004 Sōmiya Award Honors C.N.R. Rao and Anthony K. Cheetham

The International Union of Materials Research Societies (IUMRS) has presented the 2004 Sōmiya Award to C.N.R. Rao, FRS, of the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India, and to Anthony K. Cheetham, FRS, of the University of California, Santa Barbara (UCSB), for their collaboration on the synthesis and characterization of novel materials. Rao and Cheetham accepted the award last month in San Francisco during the 2004 Materials Research Society Spring Meeting/IUMRS 9th International Conference on Electronic Materials.

C.N.R. Rao

Anthony K. Cheetham

The IUMRS awards committee stated that the collaboration between Rao and Cheetham has had far-reaching consequences in the synthesis and characterization of a variety of novel materials and has scaled new heights in terms of the ability to design solids of predetermined structure with predicted properties. It also marks an extraordinary accomplishment in international collaboration in materials research, transcending cultural and national boundaries and has few parallels, said the committee.

Cheetham and Rao have collaborated for over three decades. Their collaboration has led to seminal publications in emerging areas of materials chemistry such as magnetic, nanoscale, and open-framework materials. One aspect of the joint research has focused on the magnetic properties of mixed-metal manganates. While these materials are best known for their colossal magnetoresistive (CMR) behavior, some members of this class exhibit other significant properties. For instance, $BiMnO_3$ is a rare example of a phase in which ferromagnetism can coexist with ferroelectricity. Rao and Cheetham have worked extensively on this material, making thin films by nebulized spray pyrolysis and determining their magnetic structure by powder neutron diffraction. It has become clear that the ferromagnetism has its origins in the complex orbital ordering that is found in this phase.

Another aspect of their work has been the synthesis of B–C–N, C–N, and B–N nanotubes and carbon-assisted synthesis of inorganic nanowires. Cheetham and Rao carried out pioneering investigations on open-framework tin and cobalt phosphates and zinc oxalates. These materials were often made by the use of structure-directing amines. The most recent work led to sodalite networks formed with metal squarates by amine templating. The first article by Rao and Cheetham appeared in 1976, and in the last 10 years they have published about 40 papers. Their publications are among the most cited in materials chemistry.

While they have worked at the cutting edge of science, the materials that they have synthesized have technological applications. For example, the CMR materials have potential applications in computer drives, and the nanomaterials are beginning to find utility in applications such as nanocomposites.

In addition to their research collaboration, their cooperation has been multidimensional. Rao and Cheetham have jointly organized two workshops on advanced materials for developing countries (2001 in Trieste, Italy; 2002 in Santiago, Chile), in collaboration with the Third World Academy of Sciences (TWAS) and the Institute for Theoretical Physics. They are planning a third workshop, to be held in South Africa in 2005. Rao is the president of TWAS and Cheetham is an associate fellow. They have worked together on several meetings, including a gathering of 15 materials faculty members from UCSB for a workshop in Bangalore in 1998, and they are currently working on a visit of ~30 U.S. materials scientists to India this fall, sponsored by the U.S. National Science Foundation.

They hold official positions in each other's centers. Rao is a distinguished visiting professor in the Materials Research Laboratory at UCSB, and Cheetham is a distinguished fellow in the Jawaharlal Nehru Centre for Advanced Scientific Research. They visit each other's laboratories every year to sustain their collaboration.

They have co-edited, with Achim Müller, the book *Chemistry of Nanomaterials*, published by Wiley-VCH (Weinheim, 2004). Furthermore, Cheetham produced a film documentary on the life of C.N.R. Rao for the Vega Trust. This is viewable in the "Face-to-Face" section of the Vega Trust Web site (www.vega.org.uk).

Rao has a PhD degree (1958) from Purdue University and 33 *Honoris Causa* doctorate degrees from various universities around the world. He is the Linus Pauling Professor and Honorary President at the Jawaharlal Nehru Centre for Advanced Scientific Research. His most recent honors include the Order of Scientific Merit; the Grand Cross from the President of Brazil (2002); and Karnataka Ratna, the highest honor of the State of Karnataka, India (2001). Rao is chancellor of Assam University; president of the Asia-Pacific Academy of Materials; and a member of the Atomic Energy Commission of India, the International Scientific Advisory Board of UNESCO, the International Council for Chemistry of IUPAC/UNESCO, and the Executive Board of the Science Institutes Group at Princeton University.

Cheetham has a DPhil degree (1971) from Wadham College, Oxford. He is director of the Materials Research Laboratory at UCSB, and he holds academic appointments at Christ Church, Oxford, and the Royal Institution, London. Cheetham's other appointments include founder and general partner of NGen Enabling Technologies Fund; senior scientific advisor at Catalytic Solutions; and member of the Scientific Advisory Board at HTE GmbH, the Max-Planck-Institut für Festkörperforschung in Stuttgart, and the Center for Advanced Interdisciplinary Research in Materials Science at Universidad de Chile in Santiago. His honors include elected titular member of the European Academy of Arts, Sciences, and Humanities, and elected honorary fellow of the Indian Academy of Sciences.

https://doi.org/10.1557/mrs2004.102 Published online by Cambridge University Press

Multisociety Effort Goes into Materials Research Conference to Be Held in Cancún in August 2004

The **XIII International Materials Research Congress 2004** will be held in Cancún, México in conjunction with the **VII National Congress of the Mexican Microscopy Association, Iztapalapa Sol-Gel Science and Technology Congress, IX Ibero-American Congress of Inorganic Chemistry, and III National Association of Corrosion Engineers (NACE) International**. The multisociety conference will be held August 22–26, 2004. The general chair is Ventura Rodríguez Lugo of Benemérita Universidad Autónoma de Puebla (San Manuel, Mexico).

These meetings have been organized annually and will provide an interactive forum for discussing advances in corrosion, electron microscopy, synthesis, characterization, properties and processing, basic research trends, and education in the area of materials science.

The combined efforts of several societies, sponsors, and exhibitors offer a multidisciplinary forum, providing a valuable platform for research scientists to learn of new directions in materials research and technology, as well as to share and exchange ideas with experts in the field.

Abstract deadline is May 15, 2004.

For more information, contact the Congress Secretariat, 29 Oriente. 601-1, Col. Ladrillera de Benítez, C.P. 72540, Puebla, Mexico; tel./fax 52(222)2114393 or 52(222)2114394; Web site http://www.viep.buap.mx/imrc2004.htm.

IUMRS-ICA-2004 to Convene in Taiwan in November

The conference of the International Union of Materials Research Societies International Conference in Asia (IUMRS-ICA-2004) will be held at the Industrial Technology Research Institute (ITRI) in Hsinchu, Taiwan, November 16–18. Organized this year by the Materials Research Society of Taiwan, the conference chair is Jonq-Min Liu, vice president and general director of the Materials Research Laboratories at ITRI.

The IUMRS-ICA-2004 meeting offers a multidisciplinary forum for research scientists and engineers to learn first-hand of new directions in materials research and technology as well as exchange ideas with experts in the field. The scope of the conference includes various aspects of manipulation, characterization, processing, and applications related to nanoscale and advanced materials technologies. Nanotechnology has been designated one of the major development areas in Taiwan. The interdisciplinary nature of nanotechnology calls for the integration of electronics, materials science, optoelectronics, chemistry and/or the biotechnology domain, and world-class processing and testing facilities.

Symposium topics include:

- Science and Technology of Nanomaterials
- Nanoscale Surface Science
- Nanoscale Imaging and Characterization
- Nanostructured Materials in Alternative Energy Devices
- Nanomagnetics and Spintronics
- New Materials for Electronic and Photonic Devices
- Materials for Flat-Panel Displays
- Hybrid and Soft Materials
- Theory, Modeling, and Simulation
- Education Program of Nanomaterials.

The deadline for Abstracts is June 15, 2004. The language of the conference is English. For more information, contact Ms. Grace Lee, Materials Research Laboratories, ITRI, at e-mail GraceLee@itri.org.tw; or access Web site www.ICA2004.org.tw.

MRS Future Meetings

2004 FALL MEETING
Nov. 29-Dec. 3
Exhibit: Nov. 30-Dec. 2
Boston, MA

Meeting Chairs:

Shefford P. Baker Cornell University shefford.baker@cornell.edu	**Bethanie J. Hills Stadler** University of Minnesota stadler@ece.umn.edu	**Julia W. P. Hsu** Sandia National Laboratories jwhsu@sandia.gov	**Richard A. Vaia** Air Force Research Laboratory richard.vaia@wpafb.af.mil

2005 SPRING MEETING
March 28-April 1
Exhibit: March 29-31
San Francisco, CA

Meeting Chairs:

Joanna Aizenberg Bell Labs Lucent Technologies jaizenberg@lucent.com	**Oliver Kraft** University of Karlsruhe Germany oliver.kraft@imf.fzk.de	**Neville R. Moody** Sandia National Laboratories nrmoody@sandia.gov	**Ramamoorthy Ramesh** University of California, Berkeley rramesh@uclink.berkeley.edu

2005 FALL MEETING
Nov. 28-Dec. 2
Exhibit: Nov. 29-Dec. 1
Boston, MA

Meeting Chairs:

Yang-Tse Cheng General Motors R&D Ctr. yang.t.cheng@gm.com	**David S. Ginley** National Renewable Energy Laboratory david_ginley@nrel.gov	**Kathryn E. Uhrich** Rutgers University uhrich@rutchem.rutgers.edu	**Ralf B. Wehrspohn** Paderborn University wehrspohn@physik.uni-paderborn.de

https://doi.org/10.1557/mrs2004.102 Published online by Cambridge University Press