ISCB AWARD FOR EXCELLENCE- 2011
In the area of CHEMICAL SCIENCES
(International Category)

Dr., Prof.Katsuhiko ARIGA,
(Birthday: May 11th, 1962)

Affiliation: World Premier International (WPI) Research Center for Materials Nanoarchitectonics (MANA), National Institute for Materials Science (NIMS)

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URL: http://www.nims.go.jp/super/HP/Ariga/A-top.htm (personal)
http://www.nims.go.jp/mana/members/principal_investigator/k_ariga/index.html (at MANA)
http://www.nims.go.jp/super/HP/E_home.htm (group)

Major Fields: Supramolecular Chemistry, Surface Science, and Nanomaterials

Some of time cited : 8680
H-INDEX: 48
Average citation: 28.64
Biography:
1987-1992 Assistant Professor (Tokyo Institute of Technology)
1990 PhD (Polymer Science, Tokyo Institute of Technology)
1990-1992 Postdoctoral Researcher (University of Texas at Austin)
1992-1998 JST Group Leader (Supermolecules Project) and CREST Researcher
1998-2001 Associate Professor (Nara Institute of Science and Technology)
2001-2003 JST Group Leader (Nanospace Project)
2004- Director of Supermolecules Group, NIMS
2007- Principal Investigator, MANA, NIMS,
2008- Visiting Professor (Tokyo University of Science)

Editorial Activity:
Asian Editor of Journal of Nanoscience and Nanotechnology
Asian Editor of Advanced Science Letters
Asian Editor of Nanoscience and Nanotechnology Letters
Associate Editor of Physical Chemistry Chemical Physics
Associate Editor of Science and Technology of Advanced Materials
Associate Editor of Chemistry Letters
Editorial Advisory Board Member of ACS Applied Materials & Interfaces

Recent Research Activities on Supramolecular Materials

In our research, functional materials have been wisely constructed via bottom-up approaches as seen in preparation of molecular patterns and complexes [1-5], organized nanostructures [6,7], and function bulk materials [8-10]. In addition, novel concepts “hand-operating nanotechnology” to bridge nano (molecular) structures and bulk systems is also initiated [11]. These strategies enable us to construct hierarchic supramolecular structures, some of which are highly useful for bio-related applications such as drug delivery and sensing. Recently we have been developing microcapsules with mesoporous thin walls made from silica and carbon. For example, a novel hierarchic nanostructure based on layer-by-layer (LbL) assembly and mesoporous technology, so-called mesoporous silica nanocompartment film, was reported [12, 13]. The resulting films shows stimuli-free auto-modulated stepwise release of water or drug molecules. We also demonstrated the LbL assembly of various nanocarbon materials on a QCM plate and the use of the resulting structure for selective adsorption of gaseous substances [14, 15]. The related LbL structures of mesoporous carbons were demonstrated for in situ sensor use based on highly cooperative nanopore-filling adsorption in the liquid phase [16].

1) J. Am. Chem. Soc. **2008**, 130, 4594-4595. 2) J. Am. Chem. Soc. **2009**, 131, 9494-9495. 3) J. Am. Chem. Soc. **2009**, 131, 11282-11283. 4) J. Am. Chem. Soc. **2009**, 131, 16138-16146. 5) J. Am. Chem. Soc., 2010, 132, 1212-1213. 6) J. Am. Chem. Soc. **2009**, 131, 6372-6373. 7) J. Am. Chem. Soc. **2009**, 131, 18030-18031. 8) Angew. Chem. Int. Ed. **2009**, 48, 7358-7361. 9) Angew. Chem. Int. Ed. **2010**, 49, 5961-5965. 10) J. Am. Chem. Soc. 2010, 132, 14415-14417. 11) J. Am. Chem. Soc. **2010**, 132, 12868-12870. 12) J. Am. Chem. Soc. **2008**, 130, 2376-2377. 13) Adv. Funct. Mater. **2009**, 19, 1792-1799. 14) J. Am. Chem. Soc. **2009**, 131, 4220-4221. 15) Angew. Chem. Int. Ed., in press. 16) Angew. Chem. Int. Ed. **2008**, 47, 7254-7257.

ISCB AWARD FOR EXCELLENCE- 2011
In the area of CHEMICAL SCIENCES

Professor Krishna Kumar
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URL: http://ase.tufts.edu/chemistry/kumar/group/index.html

Some of time cited : 3180
H-INDEX : 23

Education

- The Scripps Research Institute and The Skaggs Institute for Chemical Biology, La Jolla, CA 92037
- Skaggs Research Fellow, Bioorganic Chemistry & Chemical Biology, June 1996-September 1998
- Brown University, Providence, RI 02912 Ph.D., Organic Chemistry, May 1996
- St. Stephen's College, University of Delhi, Delhi 110007 B.Sc. (Honours), Chemistry, May 1991

Research & Professional Appointments
2006-2009 Chairman, Department of Chemistry,Tufts University, Medford, MA
2007–present Member, Cancer Center,Tufts Medical Center, Boston, MA 02110

2006-present Professor of Chemistry,Tufts University, Medford, MA 02155
2004–2005 Visiting Scientist, Center for Cancer Research,Massachusetts Institute of Technology, Cambridge, MA 02138,(Professor Phillip A. Sharp, MIT Biology and CCR)
2003–2005 Associate Professor of Chemistry,Tufts University, Medford, MA 02155
2002–present Adjunct Professor, Department of Biomedical Engineering
Tufts University School of Engineering, Medford, MA 02155
1999–2006 Associate Member, Cancer Center,Tufts–New England Medical Center, Boston, MA 02110
1998–2002 Assistant Professor of Chemistry,Tufts University, Medford, MA 02155

Awards and Affiliations
(1) Global Indus Technovator Award, MIT Indian Business Club, 2006
(2) Tufts Chemistry Faculty Achievement Award, Fall 2009
(3) Tufts Chemistry Faculty Achievement Award, Fall 2005
(4) DuPont Young Professor Award, 2003–2006

Research Activities
Krishna Kumar is Professor of Chemistry and Biomedical Engineering at Tufts University. After earning a B.Sc. with honors in Chemistry at St. Stephen's College in 1991, Kumar enrolled in the Department of Chemistry at Brown University, where he was awarded a Ph.D. in 1996 for work done under the supervision of Matthew Zimmt on long distance electron transfer mechanisms. Following postdoctoral work at the Scripps Research Institute in La Jolla, CA with M. Reza Ghadiri on self-replicating peptides, Kumar accepted an assistant professorship in the Department of Chemistry at Tufts University in the fall of 1998.

Kumar was promoted to Associate Professor (2003) and Professor (2006) at Tufts University in quick succession. He served as Chairman of the Department of Chemistry at Tufts from 2006 until 2009. He is a Member of the Cancer Center at the Tufts Medical Center in Boston. His research interests span synthetic organic chemistry, chemical biology, biophysics, and cell biology.

Kumar's contributions to science, and in particular chemistry, have been recognized widely. He was named a DuPont Young Professor, recognized as one of the top 35 young innovators in the world by MIT Technology Review magazine (TR35), awarded a Global Indus Technovator award from MIT-IBC, the National Science Foundation CAREER award, a Technology award from the Massachusetts Technology Transfer Center, and a BASF lectureship. He has received more than $ 6 million in research grants from various federal agencies in the US.

No candidates were found suitable for the award in the area of Biological Sciences and Drug Research

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ISCB DISTINGUISHED WOMEN SCIENTISTS AWARD

Dr. (MRS.) RUKHSANA I. KURESHY
Scientist – EII,
Central Salt and Marine Chemicals Research Institute (CSMCRI),
Gijubhai Badheka Marg, Bhavnagar-364002, Gujarat (India)
Email: rukhsana93@yahoo.co.in

List of publications : 100
Patents : 6
Some of time cited : 1387

H-INDEX : 24

Field of Specialization
Chiral Metal complex based Asymmetric Catalysis under homogeneous and heterogeneous conditions.

Dr. Rukhsana I. Kureshy. M.Sc., Ph. D. Aligarh Muslim University, has research experience of 29 years with specialization in chiral catalysis. She has designed numerous chiral metal complexes and used them as efficient catalysts for various organic transformations such as asymmetric epoxidation, epoxide ring opening reaction and hydrolytic kinetic resolution of racemic terminal epoxides under homogeneous and heterogeneous systems. She has published more than 100 research papers in international journals and 6 patents to her credit. She was instrumental in developing a green catalytic process for the production of styrene oxide: an intermediate for perfumery chemical, which was eventually licensed for commercialization to two private industries. Her works were recognized through several awards that include, CSIR Young Scientist Award 1993, MAAS Best Paper Award 1993, Hari Om Ashram Prerit S. S. Bhatnagar Award 1996, MAAS Woman Scientist Award 2005 and MAAS Best Paper Award 2005. She is recognized Guide for Ph.D. from Bhavnagar University, Bhavnagar and several students have received Ph.D. degree under her guidance.

ISCB YOUNG SCIENTIST AWARDS
Young Scientist Award (Biological Science)

Dr Vikash Kumar Dubey
Associate Professor, Department of Biotechnology,
Indian Institute of Technology Guwahati, Assam, India-781039
Tel: +91- 361-2582203, **Fax:** +91-361-2582249
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Born on May 1, 1975, Dr. Vikash Kumar Dubey received doctorate degrees from Banaras Hindu University, India. After his post-doctoral training at Florida State University, USA, he joined IIT Guwahati in 2006. Currently, Dr. Dubey is Associate Professor in Department of Biotechnology, IIT Guwahati. His research is focused on development of therapeutics against Leishmaniasis by targeting parasite specific metabolic pathways. Dr. Dubey has likewise made cutting edge contributions to the general knowledge of the scientific community regarding protein folding and the role of turn sequences in the stabilization of proteins. Moreover, Dr. Dubey has reported purification of novel proteases form a medicinal plant Calotropis procera and studied extensively with respect to activity-stability and folding. He has also been awarded DBT-Innovative Young Biotechnologist Award, Young Scientist Award of "The Biotech Research Society" and Young Scientist Award of "National Academy of Agricultural Sciences". He has authored about 40 peer-reviewed publications and 4 issued US patents. Indian Society of Chemists and Biologists is privileged to honour Dr Vikash Kumar Dubey with Young Scientist Award of the Society for his outstanding contributions in Biotechnology.

No candidates were found suitable for the award in the area of Chemical sciences and Drug Research.