

Collaboration Programs

(a) IMS International Program

IMS has accepted many foreign scientists and hosted numerous international conferences since its establishment and is now universally recognized as an institute that is open to foreign countries. In 2004, IMS initiated a program to further promote international collaborations. As a part of this program,

IMS faculty members can (1) nominate senior foreign scientists for short-term visits, (2) invite young scientists for long-term stays, and (3) undertake visits overseas to conduct international collaborations.

Leader	Title	Partner
SHIGEMASA, Eiji	Deexcitation Dynamics of Core Excited Molecules Studied by Electron Spectroscopy	France: Dr. SIMON, Marc and group members
KATOH, Masahiro	Generation of Coherent Radiation by Using Laser and Electron Beam	France: Dr. COUPRIE, Marie Emmanuelle Dr. BIELAWSKI, Serge and their group members
KIMURA, Shin-ichi	Optical and Photoelectrical Studies on the Local to Itinerant Electronic Structure of Strongly Correlated Electron Systems	Korea: Prof. KWON, Yong-Seung and group members Germany: Dr. SICHELSHMIDT, Jorg
KOSUGI, Nobuhiro	Intermolecular Interaction Revealed by Resonant Soft X-Ray Spectroscopies	Germany: Prof. RUEHL, Eckart and group members France: Dr. MIRON, Catalin and group members Korea: Prof. YEOM, Han Woong and group members
UOZUMI, Yasuhiro	Development of Novel Polymer-Supported Transition Metal Catalysts and Their Application to Selective Organic Transformations	Korea: Prof. HAN, Jin Wook and group members
SAKURAI, Hidehiro	Development of Novel Gold Cluster Catalyst Supported by Polymers	Thailand: Prof. CHAVASIRI, Warinthorn and group members
SAKURAI, Hidehiro	Design of Novel Buckybowls: An Interplay between Experiment and Theory	India: Dr. SASTRY, G. Narahari and group members
JIANG, Donglin	Studies on the Synthesis of Two-Dimensional Polymers	China: Prof. WANG, Changchun and group members
TAIRA, Takunori	Study of the Coupling between Angular-Quasi-Phase-Matching and Pockels Effect: Application to the Modulation of Parametric Processes	France: Prof. BOULANGER, Benoît Prof. SEGONDS, Patricia Prof. AKA, Gerard Philippe and their group members
YOKOYAMA, Toshihiko	A Competition between Magnetic Anisotropy and Interlayer Coupling in the Multilayer Systems of Alternating In-Plane and Perpendicular Anisotropy	Germany: Prof. PRSYBYLSKI, Marek and group members

URISU, Tsuneo	Construction of Neural Network for Molecular Signal Transduction System and Development of Molecular Science New Field	Bangladesh: Prof. RAHMAN, Mashiur
OKAMOTO, Hiromi	Studies on Electric-Field Enhancement in Self-Assembled Nanostructures of Metal Particles	Korea: Prof. JEONG, Dae Hong and group members
OHSHIMA, Yasuhiro	Excited-State Dynamics Explored by High-Resolution Laser Spectroscopy	Korea: Prof. KIM, Sang Kyu and group members

(b) Asian Core Program “Frontiers of Material, Photo- and Theoretical Molecular Sciences”

Asian Core Program is a multilateral international collaboration program carried out by JSPS (Japan Society for the Promotion of Science). It is designed to create world-class research hubs in selected fields within the Asian region, while fostering the next generation of leading researchers. The program is based on a principle of equal partnership among core institutions in Japan and other Asian countries, so that each institution is expected to secure its own matching fund. Institute for Molecular Science has launched a collaboration

project “material, photo- and theoretical molecular sciences” (2006–2011) within the framework of this Asian Core Program with three key institutes in east Asian countries: Institute of Chemistry, Chinese Academy of Science (China); The College of Natural Science, Korea Advanced Institute of Science and Technology (Korea); and Institute of Atomic and Molecular Sciences, Academia Sinica (Taiwan). At present, ten joint researches are in progress, and eight joint seminars are planned within JFY 2010.

(c) Exchange Program for East Asian Young Researchers “Improvement of Fundamental Research Base for Environmental and Energy Problems”

At the Second East Asia Summit (EAS), held in January 2007, Mr. Shinzo Abe, Prime Minister of Japan, announced a plan to invite about 6,000 young people to Japan mainly from the EAS member states every year for the next five years. Based on this plan, the Government of Japan has launched the Japan-East Asia Network of Exchange for Students and Youths (JENESYS) Programme, under which it is conducting a variety of exchange activities. As a part of the JENESYS Programme, the Japan Society for the Promotion of Science (JSPS) has launched the “Exchange Program for East Asian Young Researchers.” Aimed at promoting researcher exchanges with East Asian countries, this program supports initiatives by Japanese universities and research institutions to invite young researchers (*e.g.*, master’s and doctoral students and post-doctoral researchers) from those countries. By supporting exchange programs implemented by Japanese universities and

research institutions, the “Exchange Program for East Asian Young Researchers” works to establish and expand networks with researchers mainly from Asian countries. It also helps to develop high-caliber human resources and to create a regional science and technology community. IMS is a center of the basic research of physical/chemistry fields in Japan and has a role for the center of both domestic and international collaboration. From 2008, IMS has organized the JENESYS program for chemistry/physics fields. IMS provides the opportunity for young researchers from Asian countries to stay in the laboratories related to the basic research for environmental and energy problem for 14–90 days. Through the experience, we encourage them to continue the basic research in their own countries as well as to build up the future collaboration. IMS welcomed totally 13 young researchers in 2009–2010 season from Thailand, Singapore, Malaysia, Vietnam, and India.

