

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
MITSUKE, Koichiro	Observation of Long-Term Change in the Dye-Sensitized TiO ₂ or ZnO Photovoltaic Electrodes by XPS, XAFS and UPS	Thailand: VAILIKHIT, Veeramol and group members
EHARA, Masahiro	Theoretical Studies on the Interaction between Antiviral Drugs and Proteins: Adamantines	Australia: ARULMOZHIRAJA, Sundaram and group members
UOZUMI, Yasuhiro	Development of Novel Polymer-Supported Transition Metal Catalysts and Their Application to Selective Organic Transformations	Korea: HAN, Jinwook and group members
TADA, Mizuki	Synthesis of New Oxide-Supported Metal Complex Catalysts	Singapore: HOR TZI SUM, Andy and group members
KIMURA, Shin-ichi	Optical and Photoelectrical Studies on Electronic Structure of Strongly Correlated 3d and 4f Electron Systems	Korea: KWON, Yong-Seung and group members
OKUMURA, Hisashi	Generalized-Ensemble Molecular Dynamics Simulations of Peptide Aggregation	Taiwan: HU, Chin Kun and group members
SAKURAI, Hidehiro	Studies on the Metal Cluster Catalysts Directed toward the Utilization of Biomasses	Thailand: SOMSOOK, Ekasith and group members
YOKOYAMA, Toshihiko	A Development of Uniaxial Magnetic Anisotropy in Fe _{1-x} Co _x Films Grown on Vicinal Surfaces	Germany: PRZYBYLSKI, Marek and group members
KATOH, Masahiro	Beam Dynamics in Free Electron Laser Oscillator	France: BIELAWSKI, Serge and group members
KOSUGI, Nobuhiro	Study of Weak Intermolecular Interaction by Resonant Soft X-Ray Photoelectron Spectroscopy	France: MIRON, Catalin and group members
TAIRA, Takunori	Study of the Coupling between Angular-Quasi-Phase-Matching, Pockels Effect and Bragg Diffraction: Application to the Modulation of Parametric Processes	France: BOULANGER, Benoît and group members
JIANG, Donglin	Studies on the Synthesis of Two-Dimensional Polymers	China: DONG, Yuping and group members
SHIGEMASA, Eiji	Deexcitation Dynamics of Core Excited States Studied by High-Resolution Electron Spectroscopy	France: SIMON, Marc and group members

(b) IMS-Asian Core Program “Molecular Science in East Asian Region toward Post-Nano-Science”

In 2006, Institute for Molecular Science (IMS) started Asian Core Program on “Frontiers of material, photo- and theoretical molecular sciences” (2006–2011). This program, which was sponsored by Japan Society for the Promotion of Science (JSPS), aimed to develop a new frontier in the molecular sciences and to foster the next generation of leading researchers through the collaboration and exchange among IMS and core Asian institutes: Institute of Chemistry, Chinese Academy of Science (ICCAS, China); The College of Natural Science, Korea Advanced Institute of Science and Technology (KAIST, Korea); and Institute of Atomic and Molecular Sciences, Academia Sinica (AIMS, Taiwan). After this JSPS

Asian Core Program was successfully completed in March 2011, we have launched IMS Asian Core Program on “**Molecular Science in East Asian Region toward Post-Nano-Science**” to further promote collaborations with these four key institutes. Within the framework of this IMS Asian Core Program, two joint seminars (bilateral) and one educational program, Asian Winter School, with three key institutes are planned within JFY 2011. In addition, several international seminars and collaborations which were spun off from the previous JSPS Asian Core Program are also in progress within the frame work of IMS International Collaboration and so on.

(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) and Japan Student Services Organization (JASSO) have 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 (JSPS) and graduate students (JASSO) 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. 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 7 graduate students in 2010–2011 season by JASSO-JENESYS program from Thailand, Singapore, Malaysia, Vietnam, Philippines, and India.

After the successful three seasons of the JSPS-JENESYS Programme, IMS would like to launch a new *post*-JENESYS program named *EXODASS* (EXchange prOgram for the Development of Asian Scientific Society) Program. We opened the first season of EXODASS program in the spring semester of 2011. Although several candidates had cancelled the invitation due to the earthquake, we finally welcomed 8 young researchers/graduate students from Thailand, Singapore, and Vietnam.

