

## Foreword

The 12th International Conference on Modern Trends in Activation Analysis (MTAA-12) was held at the Minami-Ohsawa campus of the Tokyo Metropolitan University (TMU) in Hachioji during September 16–21, 2007. It was the first MTAA conference held in Japan, following the previous conferences held in College Station, Texas (1961 and 1965), Gaithersburg, Maryland (1968), Saclay (1972), Munich (1976), Toronto (1981), Copenhagen (1986), Vienna (1991), Seoul (1995), Bethesda, Maryland (1999) and Guildford (2004).

A total of 207 abstracts were received, of which 20 were cancelled. There were 182 registered scientific participants from 29 countries. At the end, there were 89 oral and 98 poster presentations. No more than one oral presentation per participant was scheduled. Two parallel technical sessions were held on Monday through Friday, except for the plenary lecture session on Monday morning. Three plenary lectures were presented: (1) “Charged particle activation analysis – past, present and future” by T. NOZAKI (Japan), (2) “Radioanalytical and imaging techniques for the challenges and opportunities in biomedical and other areas” by N. M. SPYROU (U.K.), and (3) “Multiple gamma-ray detection method and its application to nuclear chemistry” by M. OSHIMA (Japan).

Prior to the technical sessions, the presentation of the Hevesy Medal Award (HMA) 2007 Ceremony was held. The HMA was established by Professor Dr. T. BRAUN and the publisher of the *Journal of Radioanalytical and Nuclear Chemistry* (JRNC). It is the premier international award of excellence in radioanalytical and nuclear chemistry. This year the medal was awarded to Dr. Robert R. GREENBERG of the National Institute of Standards and Technology, U.S.A. We were honored to host the HMA ceremony on the occasion of MTAA-12. The HMA lecture was presented by Dr. GREENBERG.

A Welcome Reception was held on Sunday, September 16 at the International House of the TMU campus. On the following day, a mixer was scheduled. Both social functions were organized to renew friendships and make new ones. A poster session was held on Tuesday late afternoon. Two separate time slots were set up so that the poster presenters from one session could go through the posters in the other session. The poster sessions seemed to be lively, possibly because only a few posters were cancelled. On Wednesday afternoon, participants including guests enjoyed Conference excursions. There were three choices of destination: Mt. Fuji, Kamakura and Oku-Tama. In addition, a full-day trip to visit the Tokai Establishment of Japan Atomic Energy Agency was organized. The participants of this trip were able to visit the JRR-3 reactor and the J-PARC (Japan Proton Accelerator Research Complex) facility. At JRR-3, they were able to see the two, new (under construction) and old prompt gamma-ray analysis systems installed on the cold and thermal neutron beam ports, respectively. As J-PARC was under construction last September, participants could walk around the area where spallogenic neutrons were supposed to be emitted from the mercury target.

A Conference Banquet was held on Thursday at Keio Hotel-Tama Plaza, where many foreign guests stayed during the Conference. The Hevesy Medal and a scroll were presented during the banquet to Dr. GREENBERG by Prof. Amares CHATT, President of the International Committee of Activation Analysis / Modern Trends in Activation Analysis (ICAA/MTAA). The Young Scientist Award 2007 (YSA-07) was also presented at the banquet. The YSA was established by ICAA/MTAA in recognition of outstanding early career achievements in nuclear analytical chemistry. The YSA-07 was sponsored by ICAA/MTAA and the National Organization Committee (NOC) of MTAA-12. The YSA-07 was presented to Dr. Diandou XU of the Institute of High Energy Physics, China. In addition to the YSA-07, prizes for the best oral and poster student presentations were sponsored by the MTAA-12 NOC and Professor Dr. A. CHATT of the SLOWPOKE-2 reactor facility at Dalhousie University, Canada, and were presented at the Banquet. These recipients were MO-TAO ZHU (China, 1st prize), Najat K. MOHAMMED (U.K., 2nd prize) and Luciana KOVACS (Brazil, 3rd prize) for oral presentations, and CHANGSU PARK (Korea, 1st prize), Katsumi SHOZUGAWA (Japan, 2nd prize), Angela APARECIDA FERRARI (Brazil, 3rd prize) and Boon SIONG WEE (Japan, 3rd prize) for poster presentations.

MTAA-12 was hosted by the Japan Association of Activation Analysis (JA<sup>3</sup>), which is a national organization for the promotion of activation analysis organized under the leadership of Prof. Y. ITO (now a Professor Emeritus at the University of Tokyo). It consists of about 180 full members and 10 associate members. The NOC of MTAA-12 consisted of the following members of JA<sup>3</sup>: Mitsuru EBIHARA (Chairman), Kazuyoshi MASUMOTO (Co-Chairman), Motoyuki MATSUO (Co-Chairman), Yasuji OURAI (Secretariat), Shoich AIZAWA, Takaaki FUKUOKA, Michiko FUKUSHIMA, Yuichi HATSUKAWA, Shoji HIRAI, Yukio KATAYAMA, Masahide KAWANO, Yoshikazu KIKAWADA, M. Kenya KUBO, Hideki MATSUE, Yoshitaka MINAI, Yutaka MIYAMOTO, Noriyuki MOMOSHIMA, Yasuyuki MURAMATSU, Yukiko OKADA, Yoichi SAKAI, Seiichi SHIBATA, Tsuyoshi TANAKA, Makoto YANAGI and Chushiro YONEZAWA.

The MTAA-12 Conference was held without any serious problem mainly due to tremendous efforts put forward by the students of M. EBIHARA's laboratory and Mrs. OURAYA. This is gratefully acknowledged.

A total of 135 manuscripts were received during and after the MTAA-12 Conference for the publication of the Conference Proceedings. For editing of the MTAA-12 Proceedings, Publication Committee consisting of three NOC members (M. MATSUO, M. K. KUBO and M. EBIHARA) and three ICAA members (P. BODE, E. FERNANDES and A. CHATT) under the chairmanship of M. MATSUO was established. Each manuscript was peer-reviewed by at least two scientists in the same field as that of the contributor. Many manuscripts were further reviewed by Associate Editors, who were assigned among NOC members. After these processes, 110 manuscripts were finally accepted for inclusion in the Proceedings. Because of the severe limitations on page numbers for the MTAA-12 Proceedings, we asked many contributors to shorten their manuscripts. Their cooperation was highly appreciated. The whole review process was done electronically.

We trust that all participants found the MTAA-12 Conference both useful and enjoyable. We hope that these Proceedings will prove helpful to many others in the field of activation analysis for the years to come.

Professor Motoyuki Matsuo, Publications Chairman  
Professor Mitsuru Ebihara, Conference Chairman