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SPECIAL ISSUE
of
**International Symposium
on Technetium
– Science and Utilization –
(IST-2005)**

May 24 – 27, 2005
Oarai, Ibaraki, JAPAN

Guest Editors

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Preface

The International Symposium on Technetium –Science and Utilization– (IST 2005) was held on May 24–27, 2005 at Oarai Children’s Science Museum in Oarai, Ibaraki, Japan. This kind of international symposium was held for the first time in 12 years in Japan. The last symposium was held in Sendai in 1993 organized by Professor Kenji Yoshihara of Tohoku University. After that time, we had Russia-Japan Joint Seminars on technetium every three years in Moscow (1996), Shizuoka (1999) and Dubna (2002).

Major topics of this symposium are widely spread from basic science to applied fields of research on technetium and rhenium of Group 7 elements; i.e., coordination and organometallic chemistry, radiopharmaceuticals and nuclear medicine, environmental science, cosmo- and geosciences, nuclear fuel reprocessing, and partitioning and nuclear transmutations. The interdisciplinary feature of this symposium is a key to explore deep understanding of chemical and physical properties of technetium and rhenium not only for people working in a specific field, but also researchers engaged in or interested in related subjects of matter.

In fact, the discussions and exchange of information throughout the symposium were fruitful for 76 participants from 10 countries. Of the fifty three presentations, two were plenary lectures on “Syntheses of Tc(I) carbonyl complexes” by Professor Alberto, Switzerland and on “Thermodynamic data of technetium compounds” by Professor Rard, USA. Six keynote lectures presented were topics on radiopharmaceuticals by Professor Arano, Japan, on coordination chemistry of rhenium by Professor Sasaki, Japan, on environmental science by Professor Garcia-Leon, Spain, on geological science by Professor Hidaka, Japan, on materials science associated with nuclear transmutation by Dr. German, Russia and on chemistry of superheavy elements by Dr. Nagame, Japan.

The papers published in this volume have been peer reviewed and edited by the Special Editorial Committee of the symposium. The committee members are Takashi Omori, Hiroshi Kudo, Yasuhiko Fujii, Toshiaki Mitugashira, Masaki Ozawa and Tsutomu Sekine.

On behalf of the Organizing Committee, I would like to express sincere gratitude to the support by Japan Nuclear Cycle Development Institute, The Japan Society of Nuclear and Radiochemical Sciences, Atomic Energy Society of Japan, Japan Radioisotope Association, Inoue Foundation for Science, Japan Atomic Power Co., Japan Isotope Data Institute, Japan Nuclear Fuel Ltd., Nihon Medi-Physics Ltd., Radiation Application Development Association, Saint-Gobain KK and Sumitomo Metal Mining Co.

Hiroshi Kudo
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