

2010 ASC Board Elections - Materials



Teruo Izumi

- Affiliation** Superconductivity Research Laboratory - ISTEK
- Position** Director, Division of Superconducting Tapes & Wire
- Education** Dr. Engineering, Materials, The University of Tokyo,
B.S. Applied Physics, Tohoku University
- Research Interests/
Areas of Expertise:** Superconductivity, Super- conducting Tape & Wire, Crystal Growth of Superconductive Oxides, Single Crystal Growth Processing of Oxides, Solidification Processing, Thermodynamics, and Kinetics
- Publications** T .Izumi, M. Yoshizumi, M. Miura, Y. Shiohara, "Development of TFA-MOD Processing for Coated Conductors" Physica C to be published, T .Izumi, J. S .Matsuda, K. Nakaoka, M. Yoshizumi, Y. Shiohara, "Recent Progress on R&D of Advanced TFA-MOD Process for Coated Conductors" IEEE Transactions on Applied Superconductivity 17 (2007) 3329. More than 250 papers mainly related to Superconductivity research fields were published.
- Approximate Number of Years in Applied Superconductivity:** 23 years
- Membership in Professional Societies** Materials Research Society, the Japan Institute of Metals, the Japan Society of Applied Physics, Japanese Assoc. for Crystal Growth, Cryogenic Society of Japan
- Awards** The best paper of the year award, the Japan Institute of Metals(1993)
- Previous ASC Service** Asia - Program Sub-Chair (Materials) and Technical Editor, ASC 2010
- Service to Related Conferences** CCA2003-2009 Org. & Prog. Committee Member, ISS2003-2009 Prog. Committee Member, Principal Editor of the Journal of Materials Research (2000-2004)
- Other** I have worked on the R&D field of HTS processing such as "melt growth" and "coated conductors". I believe that my knowledge on the basic science of crystal growth and thermodynamics etc., which have been cultivated in the R&D experiences, should be useful for build up Material session in ASC. Furthermore, the organizing experiences of related conferences and the achievements as a leader of national projects on superconductivity should contribute to running of the ASC.
- Statement** The development level of "HTS tapes" is already achieved to km long tapes with several hundred A/cm-width, and the trials of several promising applications, such as CABLE, TRANSFORMER, MOTOR etc., are started. However, the HTS tapes are not always satisfy enough specifications required from the marketable application side. They require much higher levels of tapes on cost, in-field performance, loss etc. In order to realize "HTS WORLD" earlier, the continuous and effective R&D of the tapes is necessary maintaining strong relationship with the application side. If elected, the effort for progress in MATERIAL FIELD to promote the realization of "HTS WORLD" will be paid through ASC board actions.