

Preface

Proceedings of Rare Earths'04 in Nara, Japan,
November 7–12, 2004, Nara, Japan

These volumes represent the Proceedings of Rare Earths'04 in Nara, Japan, which was held at the Nara New Public Hall located in the center of City of Nara, from November 7 to 12, 2004. The Conference was organized in the following ten symposia supplemented by their poster sessions: "Heavy Fermions, Magnetism, and Extreme Conditions—Kondo Symposium", "Alloys and Intermetallics", "Rare Earths in Biology", "Organic Synthesis and Organometallics—Kagan Symposium", "Solid State Science and Fuel Cell", "Spectroscopy and Optical Materials", "Coordination Chemistry, Separations and Analysis", "Catalysis and Ceria-based Materials", "Actinides", and "Industry and Magnets of Rare Earths". These symposia cover on recent research topics, applications, and innovative concepts in rare earth and actinide science and technology. The program sought to achieve a balance among chemical and physical topics, reflecting an increased emphasis on applications of lanthanides and actinides that have characterized much work in recent years.

Rare Earth'04 was attended by 564 scientists representing 23 countries; about one-fifth of the attendees came from countries outside Japan. The conference featured four plenary lectures by Henri B. Kagan (Paris, France), Junjiro Kanamori (Kyoto, Japan), John E. Greedan (Hamilton, Canada), and Jean-Claude G. Bünzli (Lausanne, Switzerland), 117 invited session lectures, 41 oral presentations and 403 poster contributions.

The proceedings of this conference are being published as a special issue of the *Journal of Alloys and Compounds*. All papers that appear in the Proceedings have been reviewed by two outstanding scientists in their respective research fields, following the standards of the Editorial Board of the *Journal*. The papers appearing in the proceedings have been grouped into the same areas, according to the conference sessions with both oral and poster presentations. The conference policy is that only papers actually presented at the conference may appear in the proceedings.

The financial support received from official and institutional organizations has been essential for this conference. We are grateful to: The Rare Earth Society of Japan, The Organizing Committee of the Fifth International Conference of f-elements (ICFE'5), The Japan Society for the Promotion of Science (JSPS), Commemorative Organization for the Japan World Exposition'70, Nara Convention Bureau, The Iwatani Naoji Foundation, The Murata Science Foundation, Izumi Science and Technology Foundation, The Kao Foundation for Arts And Sciences, Nippon Sheet Glass Foundation for Materials Science and Engineering, Foundation for Promotion of Material Science and Technology of Japan, and The Asahi Glass Foundation.

Finally, the great success of Rare Earths'04 in Nara, Japan is highly indebted to a large number of colleagues who contributed with their time and expertise to planning this conference. The Chair and the Guest Editors would like to thank members of the International Advisory Committee, the Organizing Committee, and the session chairs of the symposia. We also express our appreciation to the authors and to the many reviewers who generously devoted time and effort to make a successful conference and interesting proceedings.

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