

## Preface

The International Symposium on Metal–Hydrogen Systems, Fundamentals and Applications (MH2006) was held in Lahaina, Maui Island, Hawaii, USA on 1–6 October 2006. The Symposium was the tenth meeting of a series organized every 2 years. It followed previous Symposia held in Stuttgart, Germany 1988; Banff, Canada 1990; Uppsala, Sweden 1992; Fujiyoshida, Japan 1994; Les Diablerets, Switzerland 1996; Hangzhou, China 1998; Noosa, Australia 2000; Annecy, France 2002; and Krakow, Poland 2004. It is worth remembering that this series of international meetings combining basic research and applications resulted from the decision taken 18 years ago to merge two different conference series, the International Symposium on the Properties and Applications of Metal Hydrides (Geilo, Norway 1977; Colorado Springs, USA 1980; Toba, Japan 1982; Eliat, Israel 1984; Maubuisson, France 1986) and the International Conference on Hydrogen in Metals (Jülich, Germany 1972; Birmingham, UK 1976; Münster, Germany 1979; Wrocław, Poland 1983; Belfast, UK 1985). After 26 years, the Symposium on metal–hydrogen systems was again hosted by the USA.

The scope of the Symposium concerned the recent results, ideas, and developments in basic and applied research of metal–hydrogen systems as well as other materials that interact with hydrogen. In the area of fundamental research, the hydrogen-induced changes of physical and chemical properties of the metallic and complex compounds and hydrogen dynamics in these materials were broadly presented and reviewed. Hydrogen behavior in nanomaterials and in thin films was also covered. The applied studies presented were mostly devoted to research on the compounds of light metals for hydrogen-storage applications along with continuing interest in various electrochemical components such as batteries and fuel-cell electrodes. Thus, the Symposium represented broadly the activities related to the extensive international interest in the projects related to hydrogen energy.

The Symposium provided the opportunity for the nearly 360 international participants to meet one another, as well as to discuss and exchange knowledge and experience. The program included 5 plenary lectures, 45 invited talks, 115 contributed talks and 140 presented posters. This volume of the Proceedings includes 151 presented papers, which are arranged according to

the main topics of the Symposium. It was a great pleasure to see a significant participation of many young scientists who, we believe, took advantage of a unique opportunity to meet distinguished experts in the field of hydrides.

During the Symposium, the Ewald Wicke Award for the best contribution from a young scientist was granted to Jason Graetz (Brookhaven National Laboratory, Upton, New York, USA) for his excellent contribution to research on complex aluminum hydrides. The award, which was granted for the fourth time, was founded by the Ewald Wicke Foundation (Germany) to commemorate the outstanding contribution of Professor Wicke to the research of metal hydrides. Also, Outstanding Achievement Awards were presented to James J. Reilly and Boris Bogdanovic for their many contributions on the properties and applications of metal hydrides.

We would like to thank the members of the International Steering Committee and the USA Organizing Committee for their invaluable contributions to the Symposium. Moreover, we would like to express our gratitude to the referees who devoted their time reviewing the numerous manuscripts. The broad interest in the Symposium was reflected by both the number of participants and the high level of research results presented and shows the current vigorous status of the hydrogen research community. We are looking forward to the next meeting to be held in June 2008, which will be hosted by Iceland. Let us meet again in Reykjavik!

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