

Editorial

Topical Issue on the Atomic Properties of the Heaviest Elements

Superheavy element research is one of today's biggest experimental and theoretical challenges. To refine existing investigational methods and to pave the way for new experimental techniques urgently needed for the identification of the heaviest nuclides, close collaboration in the fields nuclear physics, atomic physics, theoretical physics, chemistry and quantum chemistry combined with state-of-the-art computational methods is needed. Specialists in these fields have met at the *Workshop on the Atomic Properties of the Heaviest Elements* which was held on September 25–27th, 2006 at the *Abtei Frauenwörth im Chiemsee*, Germany. The workshop, which was supported by the German *Wilhelm und Else Heraeus-Foundation*, brought together multidisciplinary expertise with the aim of advancing atomic physics methods in superheavy element research. This topical issue brings together the main contributions to the workshop. A scientific summary and outline of the issue is given in the foreword by H. Backe, F.P. Heßberger, M. Sewtz, and A. Türler.



The workshop picture was taken in front of the palace of King Ludwig II of Bavaria on the island Herrenchiemsee.

This is the first workshop dedicated to the atomic properties of superheavy elements, and the organizers would like to thank all participants for their contributions which resulted in such a stimulating meeting.

We thank also the Wilhelm and Else Heraeus Foundation for their generous financial support of the workshop. The hospitality of the Benediktinerinnen Abtei Frauenwörth and the helping hand of Sister Scholastica are unforgettable. We also thank Julia May from the Munich Philharmonic Orchestra and Thure Adler for their moving performance at the workshop dinner.

Last but not least we would like to pay tribute to Prof. Dr. Hartmut Backe for his achievements with respect to the *Development of Resonance Ionization Spectroscopy of the Heaviest Actinides*, which we honored with a dedicated session on the occasion of his 65th birthday.

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