

Preface

This special issue contains the proceedings of the Fourth Workshop on Subsecond Thermophysics held at DLR in Cologne, Germany. Following the tradition of the previous workshops, it was focused on both experimental and theoretical aspects of thermophysical behavior of matter in the subsecond time regime. On such a time scale, it is possible to establish extreme environmental conditions such as high temperatures or high pressures and to study thermophysical properties of matter near and far from thermodynamic equilibrium. Experimental methods include rapid resistive or inductive heating (volume) and pulse laser heating (surface) techniques. Also containerless techniques, utilizing electromagnetic levitation, were discussed. In addition, new theoretical concepts to describe fast thermal processes were presented at the Workshop.

The Workshop consisted of six sessions (two volume heating, one surface heating, two levitation, one general), with a total of 36 presentations. An informal workshop atmosphere was chosen and discussions were encouraged to promote exchange and cooperation among scientists of different backgrounds but with common scientific interests. The general session consisted of a panel discussion and a visit of the DLR laboratories devoted to thermophysical property measurements.

The Workshop hosted 45 scientists, maintaining the same size as the previous workshops. This is the optimum size for a workshop and shows that this series is now well established. A significant contribution to the Workshop was made by scientists from Eastern Europe. The participation of these colleagues was made possible by generous support from the German Science Foundation (DFG). In addition, financial support from the following institutions is gratefully acknowledged: Deutsche Forschungsanstalt für Luft- und Raumfahrt (DLR) Köln, Deutsche Agentur für Raumfahrtangelegenheiten (DARA) Bonn, Daimler-Benz Aerospace Bremen, Demer GmbH Troisdorf, Hüttinger GmbH Freiburg, Friatec GmbH Mannheim, Merkt GmbH Köln, Pink GmbH Wertheim, Springer Verlag Heidelberg.

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It is my impression that the workshop provided a friendly atmosphere and helped to establish new personal relations and scientific cooperations. The Fifth Workshop will be held in 1998 in Aix-en Provence, France, and will be organized by M. Boivineau from CEA, Bruyeres-le-Chatel. I look forward to this event and hope to see many colleagues from the subsecond thermophysics community again in France.

Iván Egry

Chairman of the Fourth Workshop on Subsecond Thermophysics