

Foreword

The 4th International Conference on Materials and Manufacturing Technologies, MATEHN'06, was held in Cluj-Napoca, Romania, at EUROPA CONFERENCE CENTER, between 21 and 23 September 2006. The Conference has been organized by Technical University of Cluj-Napoca and Romanian Ministry of Education and Research in collaboration with Romanian Academy of Technical Science. The Conference attracted 154 participants from 15 countries (French, Hungary, Italy, Japan, Malaysia, Mexico, Poland, Republic of Moldova, Romania, Spain, Sweden, Turkey, Ukraine, United Kingdom, USA) from prestigious universities, research centers and from industry. Conference Committee has decided to publish the proceeding as follows:

- the papers presented in Advanced Materials Section will be published in a special issue of the *Journal of Optoelectronics and Advanced Materials*, an ISI quoted journal (Impact Factor/2005 1.138)
- the papers presented in other conference sections (Metal Forming, Powder Metallurgy, Heat Treatment and Surface Engineering, Metal Casting and Metal Welding, Quality and Environmental Aspects) are published in this volume, as a volume of the series "*Advanced Materials Research*", edited by Trans. Tech. Publications Ltd, Switzerland.

The present volume provides up-to-date, comprehensive and worldwide state-of-the-art knowledge in the science and technology of materials including powder metallurgy, metal forming, heat treating and surface engineering, metal casting and metal welding and quality and environmental aspects. The conference secretariat received a number of 323 abstracts from 17 countries. The organising committee carried out the selection of invited and contributed papers, and their arrangements into sessions. In conference have been presented a number of 173 papers (invited papers: 14, oral presentations: 37, poster presentation: 122). For publication in this volume were considered 99 papers (Powder Metallurgy: 34, Heat Treatment and Surface Engineering: 22, Metal Casting and Metal Welding: 19, Metal Forming: 15, Quality and Environmental Aspects: 9). All the papers were evaluated by two peer reviewers and 7 papers were accepted in the original form sent by the authors, 31 papers were accepted with minor modifications, 39 papers were accepted with major modifications and 22 papers were rejected.

The editors were responsible for selection of reviewers for the papers, whom we thank for their promptitude and accurate work. The communication between authors and referees was managed by the editors.

The organising committee expresses its entire gratitude to all the authors who presented their works at the Conference MATEHN '06 and contributed in this way to the success of this event. Special thanks are due to the authors from abroad for attending the conference and to the reviewers for their support in improving the quality of the papers and finally for the assurance the quality of this volume. The organising committee also addresses warmest thanks to all the members of the international committee for their support, to the generous sponsors for their financial assistance and too many others for their contribution in organising MATEHN '06.

We hope that the contents of this volume will prove useful for materials and their technologies researchers and practitioners in developing and applying new materials and processes.

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