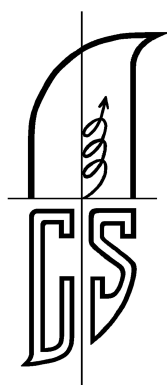


Proceedings of the 16th Czech and Slovak Conference on Magnetism

Košice, Slovakia, June 13–17, 2016

Part I



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WARSAW

POLISH ACADEMY OF SCIENCES
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Faculty of Science, P. J. Šafárik University in Košice (FS UPJŠ)
and

Institute of Experimental Physics, Slovak Academy of Sciences in Košice (IEP SAS)

in cooperation with

Technical University in Košice, Slovak Physical Society, Czech Physical Society and Slovak Magnetic Society.

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Preface

This proceedings volume contains selected papers presented at the 16th Czech and Slovak Conference on Magnetism “CSMAG’16”, which was held in Košice from June 13 to 17, 2016. The conference was organized jointly by the Faculty of Sciences of the P.J. Šafárik University in Košice and the Institute of Physics, Slovak Academy of Sciences in Košice in cooperation with Technical University in Košice, Slovak Physical Society, Czech Physical Society and Slovak Magnetic Society.

The main goal of this conference, first established in 1960, is to enable Slovak and Czech researchers as well as participants from other countries to present their most recent results and to exchange information about current trends in the field of basic and applied magnetism. The 16-th Czech and Slovak Conference on Magnetism was the second largest conference in the CSMAG series. The conference attracted 306 participants from 25 countries, of which 147 delegates were from Slovakia, 55 from Poland, 35 from Czech Republic and the remaining part of attendees came from other European countries as well as from more distant parts of the globe such as North and South America, Japan, South Africa and India. Thus, the conference retained its strong international character, which was progressively developed during the last two decades. Notably, a considerable part of attendees were graduate and PhD students. Continuation of their strong participation in the CSMAG conferences is a proof that magnetism research has good prospects for future development in the Central European countries.

The scientific program covered different areas of basic and applied magnetism such as theoretical problems of magnetically ordered materials, magnetization processes, amorphous and nanocrystalline soft magnetic materials, magnetic materials for energy applications, thin films, multilayers and surfaces, rare-earth and $5f$ magnetic systems, strongly correlated electron systems, molecular and low dimensional magnetism, ferrofluids, magnetic properties of superconducting materials, multifunctional magnetic materials and applications of magnetic materials.

The 9 technical sessions comprised 3 plenary, 14 invited and 52 contributed talks as well as 248 poster presentations. We would like to express our gratitude to the plenary and invited speakers for delivery of high level talks that covered most recent developments in the area of their scientific expertise. There is no doubt that all subjects treated in these lectures and also in the contributed talks were of great interest for audience. The three poster sessions presenting a number of the original scientific results were also well attended. After a rigorous review process 190 papers have been finally accepted to be included in these Proceedings.

In addition to the technical sessions, the CSMAG’16 attendees relish the opportunity to network and socialize during welcome reception, concert and traditional barbecue. We hope that the conference accomplished all expectations of participants regarding both scientific program and social events. We would like to express our thanks to all institutions and sponsors that have afforded a financial help to the conference. Especially, we are grateful to Technical University in Košice for providing us with suitable conditions of the university campus for the conference venue. We wish to express our special gratitude also to the Publication Chair Jozef Kováč together with his team of editors for their effort to prepare these Proceedings.

Pavol Sovák

Ivan Škorvánek

chairmen of CSMAG’16

P.J. Šafárik University

Slovak Academy of Sciences