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IEEE Electron Devices Society Piscataway USA

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FOREWORD

The International Semiconducting and Insulating Materials Conference ~ SIMC-XII-2002 - was held in the Smolenice Castle, Slovakia, from 30 June to 5 July 2002. This conference was the twelfth of the biannual SIMC series. The first conference, held in Nottingham (UK) in 1980, was entitled "Semi-Insulating III-V Materials Conference". Starting from 1996, the title was changed to "Semiconducting and Insulating Materials", following the expanding scope of the conference. SIMC-XII-2002 was organized by the *Institute of Electrical Engineering of the Slovak Academy of Sciences*. The main sponsor of the conference was the IEEE Electron Devices Society. A few other technical co-sponsors, such as scientific institutions and companies involved in the field covered by the conference scope, have also contributed.

The Castle of Smolenice, the Congress Centre of the Slovak Academy of Sciences, lies in a beautiful countryside at the southern slopes of the Small Carpathians, approximately 50 km north-east from Bratislava, the capital of Slovakia. The conference was attended by more than 60 participants from 23 countries, but we awaited at least 80. There were a few unfortunate reasons for the lower number. The main cause was due to a rapid and marked decrease of international transatlantic transfers after 11 September 2001, the terrorist attack in New York. Another important reason was connected with organization of more than 4 concurrent conferences in middle Europe, with partial overlapping of the scientific topics. Finally, 5 scientists, and even two invited speakers (Dr. D. Auret, Pretoria, Dr. J. Ludwig, Germany) cancelled their participation due to illness in the weeks prior to the conference, which caused problems with the final program. However, 1 should say that, apart from such negative moments, the conference was successful from both scientific as well as social points of view.

SIMC-XII-2002 brought together scientists and other experts interested and involved in wide band gap compound semiconductor materials and their application in electronic and optoelectronic devices. The friendly atmosphere was traditionally connected with personal discussions between scientists working on fundamental material and physical problems and industrial researchers interested in the influence of specific fundamental problems upon the fabrication process of materials and devices. Issues of the growth, characterization, theory, device applications and materials related to semiconducting and insulating compounds, such as GaAs, InP, III-nitrides, III-oxides, non-stoichiometric III-V compound materials, II-VI compounds, SiC, etc were discussed in a stimulating atmosphere of the Smolenice Castle. As acknowledged by the International Advisory and Programme Scientific Committees, excellent lectures were presented by distinguished experts: L. Samuelson, A. Krost, C.W. Tu, M. Eickhoff, J. Champlain, N.F. Chen, U. Sahr, and P. Lefebvre. The conference programme included 8 key lectures, 6 invited talks, 33 oral and 18 poster presentations. Particularly, extendings in ultrafast - THz topics (photomixers, imaging, ...) and radiation detector fields (SI GaAs, SI InP, and CdTe) were observed. The participants had a lot of opportunities to exchange their ideas and experience, to discuss future directions of this expanding and exciting field, and to create new personal contacts. All submitted manuscripts published in the SIMC-XII-2002 Proceedings, altogether 61 papers, were refereed by experts of the Slovak Academy of Sciences and of the Slovak University of Technology.

The social programme of the conference was especially rich. Original Slovakian folk music with dance opened the friendly conference atmosphere. A trip to the Castle of Bojnice, one of the most beautiful historical monuments in middle Europe was organized during the conference within a "refreshment" afternoon. Presentation of scenes with historical arms was included in the program together with a dinner in the castle restaurant. The final event of the

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social programme was the conference dinner with folk and dance music and excellent friendly atmosphere that surely can be forgotten, I believe, by no participant.

My special thanks are due to all members of the organizing committee for their effort and successful work. I thank also the main editor of the conference Proceedings, Professor Juraj Breza, and other colleagues for careful reading of the submitted manuscripts. Finally, my thanks go to all the participants of SIMC-XII-2002 who contributed to the scientific level as well as friendly atmosphere of the conference.

I wish Professor Zhan Guo Wang of the Chinese Academy of Sciences, the Chair of future SIMC-XIII, a lot of success in organizing the following conference in China.

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František Dubecký Chair of SIMC-XII-2002