

Preface

China Functional Material Technology and Industry Forum (CFMTIF) is a nationwide, comprehensive and open conference for academic and industrial exchange which is also a significant activity attached to the grand academic conference of China National Conference on Functional Materials and Applications (CCFMA) held every three years. This forum is held between two CCFMA. In 2012, the CFMTIF was successfully held in Kunming from November 9th to 12th sponsored by Chinese Functional Materials Society, National Instrument Functional Materials Engineering Technology Research Center, Chongqing Materials Research Institute and Chongqing Functional Materials Periodical Press, and executed by Yunnan University.

Focusing on the theme of "Functional materials—inexhaustible sources of independent innovation", the forum had adopted top-end academic exchanges, industry-university-research summit forums and young students forums as the main forms of communication, and organized exchange activities through keynote speeches, research reports, industry development reports, paper presentations, and wall newspapers. About 300 scientists, experts, professors, scholars and entrepreneurs at home and abroad from scientific research institutes, universities, academic societies and enterprises attended this forum including member of Chinese Academy of Sciences Chunhua Yan, member of Chinese Academy of Engineering Liancheng Zhao, president of Chongqing Materials Research Institute Qingbin Liu, president of Yunnan University Tianchun He, assistant principal of Yunnan University Shumei Hao, vice president of Harbin Institute of Technology Jiecai Han, professor of Hunan University Jianghua Chen, professor of Tsinghua University Ji Zhou, professor of University of Science and Technology Beijing Xitao Wang, professor of Huazhong University of Science and Technology Xiangshui Miu, vice president of Chongqing Materials Research Institute Guangming Zhao, board members of China Instrument and Control Society Instrument Functional Materials Branch, editorial board members of the Journal of Functional Materials etc.

The forum concentrated on the following topics: (1) Environmental Functional Materials and Energy Materials; (2) Biological Functional Materials and Functional Polymer Materials; (3) Nano Functional Materials; (4) Mechanical, Thermal, Acoustical, Optical, Electrical and Magnetic Functional Materials, Sensing and Photoelectric Materials; (5) Thin-film, Functional Membrane, Rare earth, Metallic, Ceramic, Composite and Electromagnetic Protective Materials, Detection and Evaluation Technology of Functional Materials; (6) Applications and Industrialization of Functional Materials in Space, Ocean, Military field.

"The Sixth Membership Representative Conference of Instrument Functional Materials Society" and "2012 China Functional Material Industry and Scientific Instrument Exhibition" were held simultaneously with the CFMTIF.

The success of CFMTIF plays a positive and significant role in promoting the academic, technical exchange and industrial development in functional materials field.

It is inevitable that there are some shortcomings in our work because of the limited time and academic level. Any advice for improving our following forum and proceedings is highly appreciated and welcomed. All the contributors and supporters for the forum deserve our heartfelt gratefulness. At last, thank Trans Tech Publication and Mr. Thomas Wohlbier for the hard work to publish the proceedings.

Chinese Functional Materials Society

China National Conference on Functional Materials and Applications Organizing committee

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