PREFACE

CIMTEC 2010 was held in Montecatini Terme, Italy on June 6-18, 2010. This high qualitative and comprehensive congressional event, similarly to the previous editions, has been designed to encompass and derive synergism from a broad interdisciplinarity network capable of offering opportunities for identifying and exploring new directions for research and production. The above based on the view that ongoing and future innovations require at an ever increasing extent a complex array of interconnections among scientific research, innovating technology and industrial infrastructure.

CIMTEC 2010 consisted of two major events: the 12th INTERNATIONAL CERAMICS CONGRESS (June 6-11, 2010) and the 5th FORUM ON NEW MATERIALS (June 13-18, 2010). The World Academy of Ceramics and the International Ceramic Federation (ICF) acted as principal endorsers for the first one, and the International Union of Materials Research Societies (IUMRS) for the FORUM.

The 12th INTERNATIONAL CERAMICS CONGRESS included 12 International Symposia, two Focused Sessions and two Serial International Conferences (“Disclosing Materials at Nanoscale” and “Advanced Inorganic Fibre Composites for Structural and Thermal Management Applications”) which covered recent progress in almost all relevant fields of ceramics science and technology. The 5th FORUM ON NEW MATERIALS consisted of 11 International Symposia primarily concerned with energy technologies, one Focused Session and two Serial International Conferences (“Science and Engineering of Novel Superconductors” and “Medical Applications of Novel Biomaterials and Nano-biotechnology”).

A balanced, high quality programme of invited and contributed papers resulted from the over one thousand and seven hundred scientific and technical contributions effectively presented during the working days to a large international audience coming from fifty-seven countries throughout the world.

The 15 volumes which constitute the Official Proceedings of CIMTEC 2010 (10 for the Ceramics Congress, 5 for the Forum) include a selection of the papers presented. Having most of them been written by authors whose mother tongue is not English, considerable revision of the original texts was often required. The partial reworking of several papers and sometimes even complete rewriting was needed to make clear work valid as regards the technical content but difficult to understand because of lack of proficiency in the English language. Even so, in order to allow the scientific and technical community to have access to the proceedings volumes within a reasonable length of time, compromise was necessary in regard to the quality of writing, and papers containing language imperfections were considered acceptable provided that their technical content was adequate and easily understandable.

The Editor, who also acted as the Chairman of CIMTEC 2010, would like to express his sincere appreciation to all the Institutions and Professional Organizations involved in the congress, to the members of the International Advisory Committees, the National Coordinating Committees, the Co-Chairs Prof. Akio Makishima (Japan) for the INTERNATIONAL CERAMICS CONGRESS and Prof. Robert P.H. Chang (USA) for the FORUM ON NEW MATERIALS, the Programme Chairs, the Lecturers, the technical staff of Techna Group, and to the many others who directly or indirectly contributed to the organization. Indeed it was mainly through the involvement of the above bodies and individuals, and the active participation of most internationally qualified experts from major academic and government research institutes and industrial R&D centers that a very valuable scientific programme could be arranged.

It is therefore expected for the Proceedings of CIMTEC 2010-12th INTERNATIONAL CERAMICS CONGRESS & 5th FORUM ON NEW MATERIALS to constitute a further valuable contribution to the literature in the field.

P. VINCENZINI
World Academy of Ceramics
Emeritus Research Manager
National Research Council of Italy