PREFACE

It is a pleasure to present the second volume of the edited book series 'Sintering Fundamentals'. The first volume was published in the year 2009 containing seven invited papers. The present volume 'Sintering Fundamentals II' contains seven papers written by authors hailing from five countries. The first paper authored by the editor covers historical aspects of sintering fundamentals, which began in the middle of the 20th Century. The coverage of literature is extensive, most of which are available only in the print form. The second paper authored by R.M. German (USA) presents the approach that links to the global energy reduction during sintering. The third paper authored by M.S. Kovalchenko (Ukraine) is entitled 'Rheology and Kinetics of Pressure Sintering'. The next paper by Austrian scientists, H. Danninger and C. Gierl-Mayer covers the sintering aspects of Cr- containing steels in which dilatometry coupled with mass spectroscopy is shown as good tool for sintering process control. Next paper is a joint effort of a Russian scientist (I. Konyashin) with an Austrian scientist (W. Lenguer), which encompasses functionally graded cemented carbides. The next two papers deal with ceramic systems. 'Doped Ceria based Oxide Fuel Cell Electrolytes and their Sintering Aspects', presents an exhaustive review (P. Datta, India). Finally, in the last paper K. Biswas and others (India) discuss sintering and microstructural modifications of seeded and neodymium doped lanthanum hexaaluminate.

The Editor thanks all the authors for their cooperation in reviewing the manuscripts, and finally his son Anish for painstaking work in preparing the soft copy of the first paper.

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