

## Preface

This is the proceedings of the selected papers presented at Chinese Materials Congress 2012(CMC2012) held in Taiyuan, China, July13-18, 2012.

The Chinese Materials Conference (CMC) is the most important serial conference of Chinese Materials Research Society (C-MRS) and is held each year since early 1990s. The name of Chinese Materials Conference was changed as Chinese Materials Congress from 2012 as the scale of the conference is getting larger during the last few years.

Chinese Materials Congress 2012 had 23 Symposia covering six fields of Energy and environmental materials, Functional and electronic materials, Advanced structural materials, and Materials performance, modeling and simulation. Nearly 2000 participants attended the congress, and the organizers received about 800 technical papers. By recommendation of symposium organizers and after peer reviewing 534 papers are published in the present proceedings, which divided into four volumes of

Part 1: Energy and environmental Materials

Part 2: Functional and Electronic Materials

Part 3: Advanced Structural Materials

Part 4: Materials performance, modeling and simulation

This is the volume for Part 2 including 137 papers selected from Symposium G: Bio-materials, Symposium H: Functional crystal materials, Symposium J: Multiferroics materials, Symposium K: Supercomputer materials and application, Symposium M: Nano and ultra-fine materials, Symposium N: Advanced ceramic materials, and Symposium U : Amorphous alloy and high entropy materials..

The editors would like to give the thanks to the symposium chairs and all the paper reviewers of this volume, especially to Prof. Yafang Han, Prof. Ying Wu, Prof. Jianmao Tang, and Dr. Xiaoping Hu for their English polishing of the manuscript. The thanks should be also given to Mr. Hongtao Wang, Miss Hui Li, Mr. Yunfei Liang and Mr. Bo Chen for their hard work of compilation and typesetting for each paper in this volume.

*Editors*

# **CMC 2012**

## **Chinese Materials Congress 2012**

July 13-18, 2012, Taiyuan, China

### ***Organized by***

Chinese Materials Research Society(C-MRS)

### ***Co-organized by***

Taiyuan University of Science and Technology

### ***Supported by***

Ministry of Science and Technology of China  
China Association for Science and Technology  
National Natural Science Foundation of China  
Chinese Academy of Sciences  
Chinese Academy of Engineering