

# Preface

This is the proceedings of the selected papers mainly presented at Chinese Materials Congress 2014 (CMC2014) held in Chengdu, China, July 4-7, 2014.

The Chinese Materials Congress (CMC) is the most important serial conference of Chinese Materials Research Society (C-MRS) and is held each year since early 1990s. Chinese Materials Congress 2014 had 19 Symposia covering four fields of Energy and environmental materials, Advanced functional materials, High performance structural materials and Basic research for materials. Nearly 2000 participants attended the congress, and the organizers received more than 700 technical papers. By recommendation of symposium organizers and after peer reviewing 452 papers are published in the present proceedings, which are divided into four volumes of

Part 1: Energy and environmental materials

Part 2: Advanced functional materials

Part 3: High performance structural material

Part 4: Basic research of materials

For the editorial and technical consideration 36 selected papers presented at International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM2014) which was organized also by C-MRS held in Haikou, China, October 24-27, 2014 are added in the CMC2014 proceedings. 7 papers are added in Part 2, 21 papers are added in Part 3, and 8 papers are added in Part 4. And therefore the total paper number of the proceedings is 488.

This is the volume for Part 3 including 132 papers selected from Symposium L: Metal matrix and ceramic matrix composites, Symposium M: High temperature/ultra-high temperature structural materials and surface coating, Symposium N: High entropy alloys and special high temperature material, Symposium O: Advanced magnesium alloys and application, Symposium P: Superalloys, Symposium Q: Powder metallurgy.

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*Editors*

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