

# Preface

Material is anything made of matter, constituted of one or more substances. Wood, cement, hydrogen, air and water are all examples of materials. Sometimes the term "material" is used more narrowly to refer to substances or components with certain physical properties that are used as inputs to production or manufacturing. In this sense, materials are the parts required to make something else, from buildings and art to stars and computers.

Manufacturing is the production of goods for use or sale using labor and machines, tools, chemical and biological processing, or formulation. The term may refer to a range of human activity, from handicraft to high tech, but is most commonly applied to industrial production, in which raw materials are transformed into finished goods on a large scale. Such finished goods may be used for manufacturing other, more complex products, such as aircraft, household appliances or automobiles, or sold to wholesalers, who in turn sell them to retailers, who then sell them to the consumers.

2012 International Conference on Materials and Manufacturing Research, held in Hong Kong, December 19-20, 2012, is a very nice platform for sharing experiences, innovative ideas and research results focused on the progress of Materials and Manufacturing Research. The aim of the conference is to assemble all the professionals such as leading researchers, engineers, scientists, and students under one roof.

The success of this truly international symposium has attributed to the efforts of the organizing committee. We also want to thank all the invited speakers, oral and poster presenters, reviewers of manuscripts, participants of the symposium who have contributed to the success of this international symposium. And we believe this book can provide valuable information to researchers for their future research and development works.

Guohui Yang

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