

# Preface

This volume constitutes the proceeding of the 13<sup>th</sup> International Conference on the Physical Properties and Application of Advanced Materials (ICPMAT) which was held at Hanoi University of Science and Technology, Vietnam from September 4 to 7, 2018.

The ICPMAT is an annual conference founded by University of Toyama (Japan) and Japan Institute of Metals, and is organized by a selected host country. The conference focuses on fundamental and applied researches and current developments in physics and materials science, including raw materials, structural materials, functional materials, advanced characterization techniques and computational materials science.

The ICPMAT 2018 was organized in four sections:

- Metallurgical Engineering
- Functional Materials
- Structural Materials
- Computational Materials Science

The proceeding of ICPMAT 2018 include 31 papers, which were selected from about 80 submitted manuscripts. Each contributed paper has been strictly peer-reviewed by reviewers who were drawn from organizing and advisory committee members as well as external international reviewers. The presented collections of papers contains the newest research results and achievements in the field of physical properties and application of advanced materials.

The committee of ICPMAT 2018 expresses their sincere thanks to all authors for their high-quality research papers and careful presentations. All reviewers are also thanks for their careful comments and advices. Thanks are given to Trans Tech Publication as well for producing this volume.

The Organizing Committee of ICPMAT 2018  
Committee Chair

Chairman  
Assoc. Prof. Dao Hong Bach