

# Preface

The 5<sup>th</sup> International Conference on Functional Materials Science 2020 (5<sup>th</sup> ICFMS 2020) is our fifth event for discussing research results in materials science. The main theme of ICFMS 2020 was “Trend in Functional Materials: from Fundamental to Applications”. The conference was organized by the Department of Physics, Indonesia University (UI), together with Padjadjaran University (UNPAD), Sepuluh Nopember Institute of Technology (ITS), Bandung Institute of Technology (ITB), and Gadjah Mada University (UGM).

This conference was aimed to improve and continue communication among researchers in modern materials and materials processing technologies. About 85 papers were presented in the range of functional materials, magnetic and superconducting materials, biomaterials, materials for electronics, energy storage and conversion, advanced composites polymers, and metal structural materials.

Selected 65 papers were reviewed by two or three reviewers and collected into eight chapters.

All committees members would like to thanks invited speakers and contributed speakers from Japan, Malaysia, Singapore, Thailand, and Indonesia. We would also like to acknowledge the valuable contribution of all reviewers in reviewing the manuscripts presented at this conference.

Guest Editors,

Risdiana  
Budhy Kurniawan  
Darminto  
A. A. Nugroho

# Organizing Committee

## The 5<sup>th</sup> International Conference on Functional Materials Science 2020

Chairman: Budhi Kurniawan (Indonesia University)

Co-Chairman: Risdiana (Padjadjaran University)

Secretary:

Malik Anjelh Baqiya (Sepuluh Nopember Institute of Technology)

Lusi Safriani (Padjadjaran University)

Committee:

Darminto (Sepuluh Nopember Institute of Technology)

A. Agung Nugroho (Bandung Institute of Technology)

Togar Saragi (Padjadjaran University)

Retno Asih (Sepuluh Nopember Institute of Technology)

Maykel T Manawan (Defense University)

Kuwat Triyana (Gadjah Mada University)

Fahmi Astuti (Sepuluh Nopember Institute of Technology)

IT Management:

Ali Mufid (Sekolah Tinggi Teknologi Ronggolawe)

## List of Invited Speakers

1. Tadashi Adachi (Sophia University, Japan)
2. Yasuyuki Ishii (Shibaura Institute of Technology, Japan)
3. Andriyo Rusydi (National University of Singapore, Singapore)
4. Hideki Nakajima (Synchrotron Light Research Institute, Thailand)
5. Isao Watanabe (The Physical and Chemical Research Institute (RIKEN), Japan)
6. Shukri Sulaiman (Universiti Sains Malaysia, Malaysia)
7. Satria Zulkarnaen Bisri (The Physical and Chemical Research Institute (RIKEN), Japan)
8. Takehito Nakano (Ibaraki University, Japan)
9. Ganesh Ji Omar (National University of Singapore, Singapore)