

## Preface

This is the conference proceedings of the International Conference on Functional Materials and Metallurgy held in Osaka, Japan during November 27-30, 2019.

All the full papers in the proceedings have been blind peer-reviewed by at least two experts from the International program committees to ensure high quality. Only the selected papers were accepted and orally presented at the conference.

Advanced functional materials have been received dramatic increase in their demand in research, development and applications. The aim of ICFMM 2019 is to overview the present status with historical background and to foresee the future trends in the field of functional materials. The conferences covers wide-variety topics among state-of-the-art advanced materials science and technology, and especially focuses on the major categories including environmental materials, electronic materials and energy materials etc.

Meanwhile, the objective of ICFMM 2019 is to bring together scientists, engineers, postgraduates and other professionals in the area of functional material science and engineering technology from all over the world.

Finally, we would like to express our sincere appreciation to all the members of the international advisory committees, the organizing committee, program committee, organization committee and stuffs, for their hard working to the successful ICFMM 2019. It is expected that the proceedings will be an original and valuable contribution to the literatures in the functional materials field.

Sincerely yours

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