

# Preface

## Contemporary Advances in Diffusion in Solids

Diffusion in solids is a rapidly evolving and expanding area that underpins many, possibly most, of the advances in the improvement of properties and in-service longevity of existing materials and the development of new materials that may lead to new technologies. Diffusion in solids has long been a key area of materials science and engineering and is likely to remain that way. This volume of Diffusion Foundations is entitled *Contemporary Advances in Diffusion in Solids*. It was designed to capture a wide cross-section of contemporary international diffusion research by presenting advances in both experimental aspects and modelling of diffusion at both basic science and applied levels.

The volume spans, for example, the basic atomistics of diffusion in high entropy alloys to hydrogen diffusion in  $\text{MgH}_2$ , from moisture diffusion in hybrid composites to building walls, from the modelling of solidification to the formation of  $\text{Cu}_2\text{O}$  thin films in solar cells. Some of the papers are review-like: they include the effect of heat treatment in microstructures and mechanical properties of a stainless steel, exciting new findings for ion transport in CKN, analysis of interdiffusion in high entropy alloys and the history and recent progress of the grain boundary segregation problem. We would like to thank the authors for their efforts with their papers and the time taken by the reviewers.

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