Preface

This topical volume on "Recent Developments of Diffusion Processes and their Applications: Fluid, Heat and Mass" addresses diffusion in a wider sense with a special focus on technical applications. Diffusion phenomena play an important role in the development of modern engineering materials and related fields. Understanding these different transport phenomena at many levels, from atomistic to macro, has therefore long attracted the attention of many researchers in materials science and engineering and related disciplines.

The present topical volume captures a representative cross-section of some of the recent advances in the area of diffusive transport. Reflecting the enormous breadth of the area, the range of topics covered is accordingly very large.

Topics include classical mass diffusion problems such as phase transformations, corrosion behaviour, thin layers and microstructures. Technical applications related to fuel production and energy conversion, biological and biomedical material are treated. Many of these topics are related to experimental measurements and methods as well as simulation and approaches to predict properties and processes.

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