

Preface

The basic purpose of all research activities in materials science and technology is to tailor the properties of materials to suit specific applications. Phase transformation is the key to fine tune the structural, mechanical as well as corrosion properties of any material. A basic understanding of kinetics and mechanism of phase transformation is, therefore, of vital importance. Barring a few cases involving martensitic transformations, all phase transformations are mediated through diffusion. A proper control and understanding of the process of diffusion during nucleation, growth, oxidation, sintering etc is essential for optimising the properties of material to meet specific needs.

Keeping in mind the above consideration, this special topic volume on, "Phase Transformation and Diffusion" was organised. Researchers and scientists from academia and industries immensely contributed to the volume.

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The special volume project coincided with the sixtieth year of one of the editors, namely Dr. G. B. Kale. He has spent 35 years of his distinguished career on studying diffusion phenomena in materials. His co-editors and former colleagues would like to devote this volume in his honour and wish him a long, healthy and prosperous active life.

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