FOREWORD

Transport processes in nonstoichiometric compounds are of considerable importance to engineering-related disciplines such as the high temperature corrosion of metals and sintering of ceramics. Therefore, there is a need of exchange of information between scientists involved in basic research on diffusion in solids and those involved in applied research on subjects such as high temperature oxidation of metals and alloys and corrosion inhibition. The purpose of this book is to bridge the two areas.

The book includes several papers dealing with basic aspects of high temperature oxidation of metals such as defect structures in metal oxides of nonstoichiometric composition and their transport kinetics. Applied aspects concern the corrosion of superalloys and the role of interfacial phenomena related with sensitisation in stainless steels.

The present volume is recommended to researchers working in the fields of solid state chemistry, high temperature chemistry and high temperature corrosion. The book is also recommended to students in the field of materials science.

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