

Preface

Silicide intermetallics are widely used in various applications such as microelectronics, structural and coating industries. Different aspects of diffusion-controlled growth and oxidation are studied extensively over many decades.

Chapter 1 covers the formation and growth of Ni and Ni alloy silicides in thin films.

In Chapter 2, a systematic variation of diffusion rates of components is shown because of change in an atomic number of the refractory metal (M) components in MSi_2 and M_5Si_3 phases.

Chapter 3 covers various aspects of growth in different systems with respect to thermodynamics and diffusion paths.

Chapter 4 describes the oxidation of Mo, Nb and Ti silicide-based alloys.

Chapter 5 explains the special phenomenon of periodic pattern formation during solid state diffusion-controlled growth in different systems.

Volume Editor

Professor Aloke Paul, Department of Materials Engineering, Indian Institute of Science, Bengaluru 560012