

Preface

This edition is devoted to analysing materials properties and technologies of materials processing and synthesis.

Structural metal materials such as steel, alloys, iron and technologies of incremental forming, welding, moulding, and corrosion behaviour of steel are the important topics of the part of research results presented in this book.

The two special chapters present the properties and technologies of polymers and composites processing and the practice of applying some additive manufacturing technologies.

Analysis and study of building materials properties and fire-resistance of some construction materials (concrete, steel reinforcement, timber) are the content of another important part of this special topic publication.

The practical examples of using the density functional theory method for computational research of thermoelectric materials and electronic structure of semiconductors are presented in a separate section of this edition.

Technologies of dye degradation and absorption in industrial wastewater are presented in a separate section also.

This book will be helpful to a wide range of specialists in machinery, construction and environmental engineering.