

Preface

In this publication, the reader will find the research results in the field of modern materials and technological processes for applications in mechanical engineering and construction.

Modern structural materials from metals and alloys to composites and polymers are characterized by high strength and machinability and can significantly improve the functional properties of final products and structures.

Some problems in corrosion behaviour of materials, special coatings properties, and methods of surface engineering are analysed in the separate section.

The book also discusses the issues of some polymer and composite materials synthesis and production and analyses their properties.

The special section is devoted to the application of polymer materials in modern Li-ion batteries.

Many research results on the properties of the concrete, binder materials, and other types of building materials you can find also in the separate section of this book.

This edition will be useful and interesting for specialists in materials science and engineers-technologists from many branches of modern industrial production and civil engineering.