

## Preface

Modern machinery and the construction industry are constantly in need of the development of new or modernization of known structural metals and alloys, composite materials, and materials for special functional purposes. This trend is determined by modern technological progress not only in the production sectors which are mentioned above, but also, practically, in all spheres of the material activity of society.

The presented collection contains articles highlighting the latest research results and engineering solutions in the field of modern materials science, technologies for the synthesis and processing of materials, the development of physical principles for measuring their properties.

We sincerely hope that this issue will help many engineers choose materials to design new machines and mechanisms, technologists in mechanical engineering, designers in construction, and students and academics.

Special thanks are due to the authors for providing the materials of their research and to all other participants of the publication process of this collection.