

# Preface

This book introduces readers to research results in materials science for many industries.

Materials and technologies for heavy metal absorption from wastewater and soil, modification of coal fly ash for the absorption processes and identification of toxic materials in pesticides are studied in the first chapter.

The fire-resistance issues, fire-retardant materials and technologies of fire-extinguishing are the topics of the special section of this edition. These research results will be useful for specialists in fire safety.

Membrane technologies of biogas separation, obtaining of cellulose microfibers and silica nanoparticles in rice husk treatment, hydrocracking of plastic waste into liquid fuel, etc. are presented in the section devoted to chemical technologies.

Research exploitative properties materials for opto- and microelectronics, and also mechanical properties of structural elements in construction are presented in the two separate sections.

This edition will be helpful to many specialists in applied materials science.