

Preface

The presented special issue is dedicated to recent problems and achievements in applied materials science and materials processing technologies in modern manufacturing.

Microstructure, mechanical properties and technologies of synthesis and processing including additive technologies, are the subjects of the first two chapters.

Materials based on metal organics frameworks used for dye removal from wastewater of textile production and the example of fabrication of a paper-based with silver nanoparticle sensor for colourimetric detection of copper in water are presented to readers' attention in the third chapter.

The next fourth chapter is dedicated to the analysis of some materials' properties used in opto- and microelectronics.

The last chapter contains the research results on the analysis of the effect of some technological factors on the size distribution of white sugar crystals in the batch vacuum pan and a theoretical basis for the design and development of highly efficient diesel hydrotreating catalysts.

This special edition will be interesting to many engineers and researchers in materials science, machinery and chemical production.