

# Preface

This special publication presents to readers the latest engineering investigations in the area of materials science and technologies of chemical production.

Structural metals - steel and alloys, polymers and composites are subjects of the research in the first two chapters. The mechanical properties and microstructures of these materials, technologies of synthesis and preparation of them, applications of computational procedures for technological parameters optimisation etc. are analysed and described here.

The analysis and modification of chemical technologies of titanium dioxide and based compound synthesis for many applications including photocatalysis etc. are presented in the last chapter.

The special edition will be useful to many researchers and engineers whose activities are related to machinery and chemical production.