

## Preface

The special edition is devoted to analysing research results of properties and processing technologies of structural metals used in modern machinery.

Effect of heat treatment on mechanical properties and corrosion behaviour of high entropy alloy coating for steel, analysis of the fatigue strength of wire arc additively manufactured carbon steel, the influence of ageing condition on the characteristics of continuous precipitates of magnesium alloy, etc., are the main topics of the first chapter.

Technologies of metal joining, such as brazing, low-temperature soldering, resistance spot welding lap joint and resulting joint properties are investigated in the second chapter.

The last chapter is dedicated to analysing mechanical behaviour and the effect of technological conditions on tools and resulting products in wire drawing, metal cutting and sintering-dissolution process in powder metallurgy.

The presented special edition will be useful to specialists in mechanical engineering.