## **Preface**

The presented special edition includes articles on research results in functional materials and technologies of metal welding.

Magnetic properties of iron cobalt pyrophosphate compound analysis, modelling analysis of thermoelectric properties of zinc antimonide and optoelectronics properties of titanium dichalcogenides are represented in the first chapter.

Welding technologies for metal materials joining is the topic of the second and last chapter. The performance of laser, ultrasonic and spot welding, tungsten inert gas welding, gas are welding, and mechanical properties and defects of welding joints are investigated here.

The specialised collection will be helpful to engineers-technologists in machinery and specialists in materials engineering.