## **Preface**

The 27<sup>th</sup> National Conference on Heat Treatment was held on November 26 - 28, 2019 in Jihlava, Czech Republic. The topic of the conference covered all aspects of heat treatment of metallic materials such as phase transformations in metals and alloys, materials for heat treatment, microstructure and properties relationships, distortion engineering, equipment for heat treatment, surface engineering (thermo-chemical treatment, CVD, PVD), vacuum technology, simulation in heat treatment, 3D printing, heat treatment in upcoming Industry 4.0, quality assurance in heat treatment, measurement methods for monitoring and results of heat treatment processes, and heat treatment of non-ferrous alloys. The published papers are focused to different fields of the main conference topic, such as cryogenic treatment of tool steels and cemented carbides, boronizing of structural steels, laser hardening, heat treatment of 3D printed alloys, aluminium alloys, and Ti-Al-Si based intermetallics. The Editor of this special issue of the journal Defect and Diffusion Forum wish to thank the organizers of the Conference, all the authors of papers as well as other attendants for nice and fruitful atmosphere of the conference.

Prof. Peter Jurči Editor