



CONTENTS

Introduction on the importance of the materials structure and properties forming processes for contemporary industrial production L.A. Dobrzański (Poland)	4
Effect of cooling rate and aluminum contents on the Mg-Al-Zn alloys' structure and mechanical properties L.A. Dobrzański, M. Król, T. Tański (Poland)	9
Hot-working of advanced high-manganese austenitic steels L.A. Dobrzański, W. Borek (Poland)	55
Structure and properties of sintered tool gradient materials L.A. Dobrzański, B. Dołużańska (Poland)	89
PVD and CVD gradient coatings on sintered carbides and sialon tool ceramics L.A. Dobrzański, M. Staszuk (Poland)	133
Structure and properties of gradient PVD coatings deposited on the sintered tool materials L.A. Dobrzański, L.W. Żukowska (Poland)	187