

Table of Contents

Preface

Chapter 1: Steel and Alloys

Effects of Texture on Tensile Properties of Hot Extruded Mg-6Zn-1Y-1Ce Alloy	3
L. Chen, W.P. Yang, H.B. Cui, Z.C. Xu, Y. Wang and X.F. Guo	
Effects of Ce on Microstructure of As-Cast Mg-6Zn Alloy	11
W.P. Yang, J.J. Zhou, H.B. Cui, Z.C. Xu, Y. Wang and X.F. Guo	
Experiment and Numerical Simulation on Bearing Properties of Mg-Li Alloy Thread	21
Q. Yang, C.H. Yang, K. Ma, X.O. Zhang, H.F. Chen and H. Ren	
Research on Fatigue Properties and Fracture Mechanism of δ-TRIP Steel	29
X. Xu, R.D. Liu, H.Y. Su, Y.P. Lu and J.Y. Guo	
Impact of Rare Earth Addition on Creep Rupture Behavior of 316LN Austenitic Stainless Steel at 700°C	37
R.X. Yang, X. Cai, L.G. Zheng, X.Q. Hu and D.Z. Li	
Effect of Bainite/Martensite/Retained Austenite Triplex Microstructure on the High Strain Rate Behavior of a One Step Quenching and Partitioning Steel	45
C.L. Li, L. Xiao, L. Li, X. Xin, R.K. Zhang and R.D. Liu	

Chapter 2: Research and Design in Mechanical Engineering

Research on Thermal Structure Analysis Technology of Supersonic Missile Rudder	57
L. Yi, Y.L. Li, H.B. Lin, B. Luo and J. Zheng	
Impact Damage Analysis of Skid Landing Gear of the UAV	65
X.C. Ma, Y. Wang, Y.L. Jia, J. Dong and H. Gong	

Chapter 3: Mechatronics

Study on Fuzzy Control of Trawler Winch Based on AMESim	75
J. Wang, Y.H. Xie, D.T. Li, J.Q. Zhang, W.P. Gao, Y.Q. Hong, Q. Chen and C.J. Li	
Design and Simulation of Hydraulic Winch Tension Control for Trawler	83
J.Q. Zhang, Y.H. Xie, D.T. Li, Y.Q. Hong, Q. Chen, J. Wang and W.P. Gao	
Research of Stress Detection Based on Mechanoluminescence	91
T. Wang, B. Hu, Y. Zhang, S.P. Luo and X.X. He	