

Table of Contents

Preface

Crystallochemistry of Amorphous State in Ni(Co, Fe)-Nb(V, Ta, Mo+Zr) Alloy Systems V.V. Savin, L.A. Savina, V. Semina, V. Semin and N.P. Dyakonova	1
Development and Characterisation of New Biocompatible Sn-Mg Lead-Free Solder M. Ďurišin, J. Ďurišin, O. Milkovič, A. Pietriková and K. Saksl	6
The Application of the Hybrid Method the Powder-Laser-Casting Technology for Production of Porous Alloys Based on Aluminum V. Lykhoshvya, L.A. Savina, V.V. Savin and A. Tymoshenko	11
Analysis of the Stress-Strained State of Billets Processed by Rotary Forging with Special Shape of the Tool R. Asfandiyarov, G.I. Raab and D. Aksenov	16
Study of the Influence of the V in the Zr₂Fe Alloy from Hydrogen Storage on Thermodynamic Properties A. Martinez, D. Peña and D. Bellon	22
Effect of Hydrogen Redistribution during Aging on the Martensitic Transformation and Superelasticity of Nanocrystalline TiNi Alloy A. Baturin, A. Lotkov, V. Grishkov, I. Rodionov and D. Zhapova	30
Effect of Zr on Structure and Resistance to Intergranular Corrosion of Severely Deformed 2024 Aluminum Alloy S.V. Krymskiy, R. Ilyasov, E. Avtokratova, O. Sitdikov, A. Khazgalieva and M. Markushev	35
Characterization of the Superelastic and Structural Characteristics of β-Ti Alloys by Strain-Controlled Cycling after Thermomechanical Processing and Subsequent Ageing V. Sheremetev, M.F. Ijaz, A. Kudryashova, A.S. Konopatsky, S. Prokoshkin and V. Brailovski	43
Features of Amorphization of the Fe-TM-Nd-REM-B Alloys System at Melt Quenching by Gas Atomization M. Sorokovikov, V.V. Savin, L.A. Savina, V.A. Chaika and I.S. Zherebcov	51