

## CONTENTS

<b>Preface</b> .....	<b>A4</b>
<b>Microstructure (continuation)</b>	
<b>Effect of a Scandium Addition on an Al-2% Si Alloy Processed by ECAP</b> .....	<b>99</b>
K. Venkateswarlu, V. Rajinikanth, A. Kumar Ray, Ch. Xu and T. G. Langdon	
<b>Microstructure Evolution in a Cast 1421Al Alloy during Hot Equal-Channel Angular Extrusion</b> .....	<b>107</b>
F. Musin, A. Belyakov, R. Kaibyshev, Y. Motohashi, G. Itoh and K. Tsuzaki	
<b>Use of TEM Kikuchu Bands for Microstructure and Thermal Stability Study of ECA Pressed AA1200 via Routes A, C, Bc</b> .....	<b>113</b>
M. Cabibbo	
<b>The Microstructure Features and the Deformation Mechanism of a Fine Grained Magnesium Alloy under Dynamic Loading</b> .....	<b>122</b>
Y. Suyuan	
<b>Fragmentation of the Structure in Al-Based Alloys upon High Speed Effect</b> .....	<b>128</b>
I. G. Brodova, E.V. Shorokhov, A. N. Petrova, I. G. Shirinkina, I.V. Minaev, I.N. Zhgilev and A.V. Abramov	
<b>Layered Material Manufactured from Titanium Alloy Ti-6Al-4V</b> .....	<b>136</b>
A.A. Ganeeva, A.A. Kruglov and R.Ya. Lutfullin	
<b>Solid-Phase Joint Formation in Ti-6Al-4V Alloy under Conditions of Low Temperature Superplasticity</b> .....	<b>142</b>
R. Ya. Lutfullin and M. Kh. Mukhametrakhimov	
<b>Evolution of Microstructure During Low Temperature Superplastic Deformation of Bulk Nanostructured Ni-Cr-Fe-Nb Base Superalloy</b> .....	<b>148</b>
V. A. Valitov, Sh. Kh. Mukhtarov, A. P. Zhilyaev and O. A. Ruano	
<b>Diagnosis of Structural State of Bulk Nano- and Submicrocrystalline Soft Magnetic Materials</b> .....	<b>155</b>
N.I. Noskova and A.G. Lavrentiev	
<b>Atomistic Simulation of Interaction Between Cu Precipitates and Edge Dislocation in bcc Fe Crystal</b> .....	<b>164</b>
I.N. Karkin, Yu.N. Gornostyrev and L.E. Karkina	
<b>Properties</b>	
<b>Mechanical Properties and Microstructure Evolution during Deformation of Ultrafine Grained Zirconium at Low Temperatures</b> .....	<b>168</b>
E. D. Tabachnikova, A. V. Podolskiy, B. Bonarski, C. Mangler, V. Z. Bengus, S.N. Smirnov, A. N. Velikodny, M. A. Tikhonovsky and M. J. Zehetbauer	
<b>Distribution of Microhardness and Tensile Properties in Aluminum Billet Processed by Equal-Channel Angular Pressing</b> .....	<b>176</b>
K.V. Ivanov and E.V. Naydenkin	
<b>Mechanical Properties at High Temperature of an AA3004 after ECAP and Cold/Hot Rolling</b> .....	<b>183</b>
M. Cabibbo, M. El Mehtedi, L. Barone, E.F. Prados and M. Ferrante	
<b>Influence of DCAP Process on the Mechanical Properties of 6061 Al-Alloy Sheet</b> .....	<b>189</b>
E. Tan and C. H. Gür	
<b>Features of Deformation Behavior at Rolling and Tension under Current in TiNi Alloy</b> .....	<b>194</b>
V. Stolyarov	