

## **CONTENTS**

---

<i>Shchitsyn Iu.D., Belinin D.S., Neulybin S.D., Terent'ev S.A., Efimova A.A.</i>	
Creating composite materials based on high-nickel alloys with the use of a plasma arc at current reverse polarity .....	7
<i>Chapyshev A.P., Starodubtseva D.A.</i>	
The program module designated processing conditions finishing employing automatic brushing stationary installation .....	21
<i>Novikov V.F., Neradovskii D.F., Sokolov R.A.</i>	
The using of quasi-static magnetic hysteresis loops to control steel structures.....	38
<i>Dolgopolov V.G., Dubrovskii V.A., Simonov M.Iu., Simonov Iu.N., Iurchenko A.N., Shibanova K.A.</i>	
The methods of influence on the structure and properties of aluminum alloys used in the aerospace industry.....	50
<i>Gusev V.G., Kochetov D.O.</i>	
Physic-mechanical characteristics researching of nitride and carbon coverings on the basis of AlSiCr and AlSiTi.....	64
<i>Fedoseeva E.M.</i>	
Mechanical and structural microinhomogeneity of welded compounds of X65 steel .....	76
<i>Kungurov D.A.</i>	
Method of determination of durability of a portion of ferromagnetic abrasive filler in magnetic abrasive polishing .....	89
<i>Gusev V.G., Zuev M.S.</i>	
Maintenance problem of the sealing surfaces roughness of the pipeline armature closing knot .....	102
<i>Verkhorubov V.S., Nevezhin S.V., Korobov Iu.S., Neulybin S.D., Terent'ev S.A., Schitsyn Iu.D.</i>	
Wear resistance of arc sprayed coatings type of Fe-C-Cr-Ti-Al after plasma remelting .....	114
<i>Samoilova E.M.</i>	
Building expert system of support of decision-making as intellectual component of the monitoring system of technological process.....	128
<i>Muratov K.R., Gashev E.A., Lagunov D.M., Matygullina E.V.</i>	
Research lapping process of the mineral ceramics.....	143

*Abliaz T.R., Shumkov A.A.*

- Influence of voltage and wire speed on forming the machined surface roughness during wire electrical discharge machining ..... 160

*Chernyi K.A.*

- Simulation of “aerosol particles – air ions” system in working area applied to engineering production ..... 170

*Oglezneva S.A., Saenkov K.L.*

- Investigation of the effect of grain size austenite on phase transformation temperature iron-based alloys ..... 187