

# Table of Contents

## Preface, Committees, Sponsor

### **Methods for Characterizing Properties of Corrosion-Resistant Steel Powders Used for Powder Bed Fusion Processes**

S. Nowotny, T.V. Tarasova, A.A. Filatova and E.Y. Dolzhikova 1

### **Features of Vibro-Acoustic Monitoring EDM of Conductive Ceramics**

S.N. Grigoriev, M.P. Kozochkin, A.N. Porvatov and N.W. Solis Pinargote 8

### **New Method for Synthesis of Hard Coatings Using Pulsed Bombardment with High-Energy Gas Atoms**

A.R. Seitkulov, S.N. Grigoriev, A.S. Metel, M. Volosova and Y.A. Melnik 14

### **Synthesis of Hard-Melting Carbide, Nitrite and Intermetallic Phases with Surface Electron-Beam Microalloying**

M. Jenek, S.V. Fedorov and M.H. Swe 25

### **Optimization of Processing Conditions on the Wire Electric Discharge Machining by the Parameters of Vibro-Acoustic Signal**

S.N. Grigoriev, M.P. Kozochkin and A.N. Porvatov 36

### **Specifics of Wear of Ceramic Cutting Tool Inserts Featuring Al<sub>2</sub>O<sub>3</sub>-TiC Dies when Face Milling Hardened Cast Iron**

R. Torrecillas San Millan, A.E. Seleznev, V.D. Gurin and P.Y. Peretyagin 43

### **Effect of Wear of Tool Cutting Edge on Detail Surface Layer Deformation and Parameters of Vibro-Acoustic Signals**

M.P. Kozochkin, M. Volosova and D.G. Allenov 50

### **Influence of Carbide Substrate Properties on Wear Resistance of Tool with Multilayer Coating in Machining of Chromium-Based Heat-Resistant Alloy**

A. Batako, A.M. Adaskin, V.N. Butrim, A.A. Vereschaka and A.S. Vereschaka 59

### **Tracking Navigation System Based on Photogrammetry Principles**

T. Zaborowski, L.E. Shvartsburg and S.G. Konov 69

### **Spectral Parameters of Straightness Deviation Evaluation**

A.V. Glubokov, S.V. Glubokova, A.V. Shulepov and S.E. Ped 74