RUSSIAN METALLURGY (Metally)

Pleiades
Publishing Group
Over 5 O
years
in the service of science
and education

Guest Editor Boris R. Gel'chinskii

> https://pleiades.online https://link.springer.com



PLEIADES GROUP OF COMPANIES

Distributed by **SPRINGER NATURE**



33 articles in this issue

Geometrically Nonlinear Analysis of the Operation of a Shape Memory Alloy Force Actuator



DEFORMATION AND FRACTURE MECHANICS | 22 October 2025 | Pages: 717 - 726

Cross-Hardening Effect in Titanium Nickelide, the Martensitic Inelasticity Diagram of Which Has No Yield Plateau

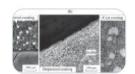


DEFORMATION AND FRACTURE MECHANICS 22 October 2025 | Pages: 727 - 732

Thermal Barrier Zirconia-Based Coatings

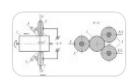
ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 733 - 742

Structure and Properties of Composite Coatings Based on a B83 Alloy Reinforced with Intermetallics



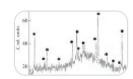
ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 743 - 747

Hardening of High-Entropy Fe–Cr–Ni–Mn–Co Alloy Coatings by Electromechamical Treatment

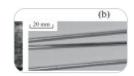


ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 748 - 752

The Influence of Temperature on the Structure and Phase Composition of Yb₂Si₂O₇ Coatings Applied on Kh20N80 Alloy and Sitall Substrates by Atmospheric Plasma Spraying

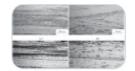


<u>Structure and Properties of Arc-Deposited SnSbCu–Al(Bi) Composite</u> Coatings



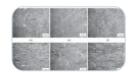
ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 759 - 763

Effect of Tantalum Content on the Structure and Mechanical and Biochemical Properties of Ti–20Nb–xTa Alloys (x = 7.5, 10.0 at %) for Medical Implants



ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 764 - 771

Structure, Mechanical Properties, and Corrosion Resistance of Medical Ti-10 at % Nb-(1-3 at %) Mo Alloys



ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 772 - 781

Influence of the Structure and Superelastic Properties of Titanium

Nickelide on the Volume Fraction of the Reinforcing Filler in a

Polyethylene–TiNi Composite Material



ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 782 - 789

Actuators Made of Polyethylene and Titanium Nickelide Plates for Transformable Shape Memory Effect Structures



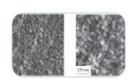
ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 790 - 795

Structural-Scale Levels of Deformation of Quasi-Amorphous Soft Magnetic Alloy Ribbons

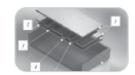


ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 796 - 803

Main Service Properties of Carbon Aerogels Based on Resorcinol– Formaldehyde



Effect of a Copper Coating on the Compatibility of a Reinforcing Fiber with an Aluminum Matrix



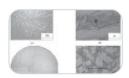
ADVANCED MATERIALS AND TECHNOLOGIES | 22 October 2025 | Pages: 812 - 818

Relationship between the Structure, Texture, and Mechanical Properties of Pure Magnesium after Deformation Treatment under Different Conditions



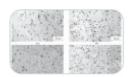
APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 819 - 829

Influence of Deformation and Temperature on the Strength and Elastic Characteristics of Directionally Solidified Cobalt Alloy 84KKhSR Rods



APPLIED PROBLEMS OF STRENGTH AND PLASTICITY 22 October 2025 | Pages: 830 - 835

Kinetics of the Forward and Reverse Martensitic Transformations in Titanium Nickelide during Deformation and Shape Memory Effect

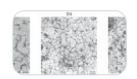


APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 836 - 842

Influence of the Dispersion of Structure and the Reinforcing Filler

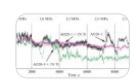
Distribution Quality on the Tribological Properties of Aluminum Matrix

Composite Materials



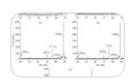
APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 843 - 845

Influence of the Reinforcement of an AO20-1 Antifriction Alloy on the Friction Stability of Composite Materials



APPLIED PROBLEMS OF STRENGTH AND PLASTICITY 22 October 2025 | Pages: 846 - 848

Thermal Expansion of the T₁ (Al₂CuLi) Intermetallic Phase in a V-1480 (Al–Cu–Li) Alloy

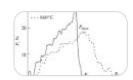


Effect of Rotary Swaging on the Structure and Properties of Hypereutectic Aluminum–Calcium-Based Alloy



APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 856 - 862

Influence of Heat-Treatment Conditions on the Impact Strength and Fracture Mechanisms of a VT23 Titanium Alloy



APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 863 - 867

Influence of Hydride Orientation on the Deformation of Tubes Made of E635 Zirconium Alloy



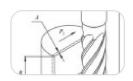
APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 868 - 873

Effect of the Laser Cutting Speed on the Cut Surface Structure of Silicon Nitride-Based Ceramics



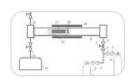
APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 874 - 880

Influence of Hydrogen Alloying and Thermal Hydrogen Treatment on the Machinability of Ti–8.7Al–2.0Mo–1.5Zr Alloy



APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 881 - 886

Elaboration of a Hydrogenation Procedure for Zirconium Alloys

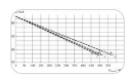


APPLIED PROBLEMS OF STRENGTH AND PLASTICITY | 22 October 2025 | Pages: 887 - 893

Computer Simulation of the Behavior of Titanium Alloy Plates during a High-Energy Dynamic Action

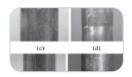


Strength of Structural Carbon Fiber Reinforced Plastics under Tension, Compression, and Interlaminar Shear



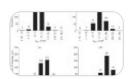
DIAGNOSTICS AND MECHANICAL TEST TECHNIQUES | 22 October 2025 | Pages: 901 - 907

State of Fuel Rods with Artificial Through-Wall Defects after Tests in Air at 350°C



DIAGNOSTICS AND MECHANICAL TEST TECHNIQUES | 22 October 2025 | Pages: 908 - 917

Evaluation of the Cold Resistance of Large Forgings Made of Heat Treatable 38KhN3MFA-Sh Steel Using Data Mining of Process and Product Control Databases



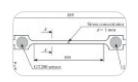
DIAGNOSTICS AND MECHANICAL TEST TECHNIQUES | 22 October 2025 | Pages: 918 - 926

Estimation of the Strength of Press-Fit Bearing Ring Joints Using Their Deformation Behavior during Loading



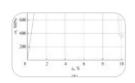
DIAGNOSTICS AND MECHANICAL TEST TECHNIQUES | 22 October 2025 | Pages: 927 - 934

<u>Discrete Acoustic Emission Investigation of the Fracture of Plastic</u> Specimens Fabricated by Fused Deposition Modeling



DIAGNOSTICS AND MECHANICAL TEST TECHNIQUES | 22 October 2025 | Pages: 935 - 941

Failure of Titanium-Based Laminated Composites



DIAGNOSTICS AND MECHANICAL TEST TECHNIQUES | 22 October 2025 | Pages: 942 - 947