

# RUSSIAN METALLURGY (Metally)

Guest Editor  
Boris R. Gel'chinskii

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



PLEIADES GROUP OF COMPANIES

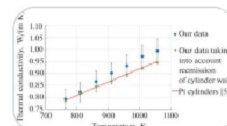
Distributed by **SPRINGER NATURE**



31 articles in this issue

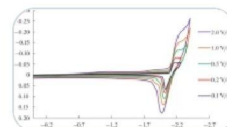
## **Radiative Contribution to Thermal Conductivity for FLiNaK–CeF<sub>3</sub> Molten Mixtures Used as an Example**

**OriginalPaper** 29 August 2025 | Pages: 247 – 251



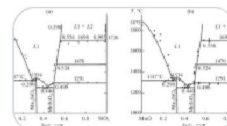
## **Mechanism of the Joint Electroreduction of La<sup>3+</sup> and Ni<sup>2+</sup> Ions in a KCl–NaCl–CsCl Eutectic Melt at 823 K**

**OriginalPaper** 29 August 2025 | Pages: 252 – 262



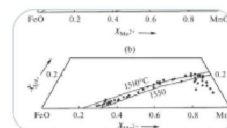
## **Phase Diagrams of the FeO–MnO–MgO–SiO<sub>2</sub> Oxide System: Binary MnO–SiO<sub>2</sub> and MgO–SiO<sub>2</sub> Oxide Systems**

**OriginalPaper** 29 August 2025 | Pages: 263 – 268



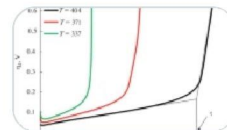
## **Phase Diagrams of the FeO–MnO–MgO–SiO<sub>2</sub> Oxide System: Ternary FeO–MnO–SiO<sub>2</sub>, FeO–MgO–SiO<sub>2</sub>, and MgO–MnO–SiO<sub>2</sub> Phase Diagrams**

**OriginalPaper** 29 August 2025 | Pages: 269 – 273



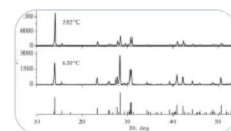
## **Effect of Temperature on the Diffusion of the Al<sub>2</sub>Cl<sub>7</sub><sup>−</sup> Anion in a Low-Temperature Triethylamine Hydrochloride–Aluminum Chloride Melt**

**OriginalPaper** 29 August 2025 | Pages: 274 – 278



---

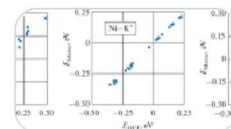
## **Physicochemical Properties of Lithium–Vanadium $\text{Li}_3\text{V}_2\text{O}_8$ Bronze Synthesized from a Melt**



**OriginalPaper** 29 August 2025 | Pages: 279 - 284

---

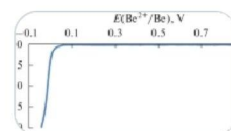
## **Adsorption at the Ni and Ti Interface in a LiCl–KCl Melt: Molecular Dynamics Simulation**



**OriginalPaper** 29 August 2025 | Pages: 285 - 292

---

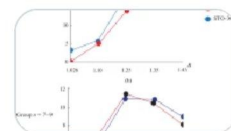
## **Electrochemical Behavior of Uranium Ions in Lithium and Beryllium Fluoride Melts**



**OriginalPaper** 29 August 2025 | Pages: 293 - 299

---

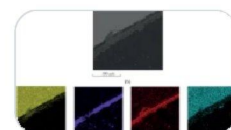
## **Structures of Phosphate Melts Based on Lithium Metaphosphate in a Model Experiment**



**OriginalPaper** 29 August 2025 | Pages: 300 - 306

---

## **Aluminizing as a Method to Reduce the Degradation of Structural Materials in Molten Lead**



**OriginalPaper** 29 August 2025 | Pages: 307 - 318

---

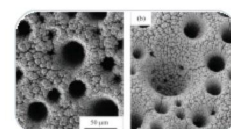
## **Stability of Gold Nanotubes**



**OriginalPaper** 29 August 2025 | Pages: 319 - 322

---

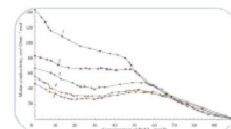
## **Synthesis and Modification of the Surface of Electrolytic Nickel Foams as Catalytically Active Electrode Materials for Hydrogen Production by Electrolysis**



**OriginalPaper** 29 August 2025 | Pages: 323 - 331

---

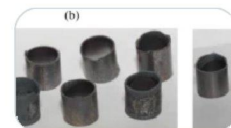
## **Influence of the Anionic Composition on the Electrical Conductivity of Beryllium-Containing Molten Salt Mixtures**



**OriginalPaper** 29 August 2025 | Pages: 332 - 340

---

## **Interaction of 16Kh12MVSFBR Steel with Nitrogen at 650–800°C**



**OriginalPaper** 29 August 2025 | Pages: 341 - 347

---

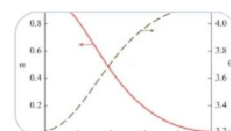
## **Effect of the Redox Potential of a Medium on the Degradation of 12Kh18N10T Steel the FLiNaK–TiF<sub>4</sub>/TiF<sub>3</sub> Melt**



**OriginalPaper** 29 August 2025 | Pages: 348 - 353

---

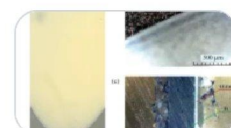
## **Bulk Crystallization of Supercooled Binary Melts with Allowance for Crystal Growth Rate Fluctuations**



**OriginalPaper** 29 August 2025 | Pages: 354 - 363

---

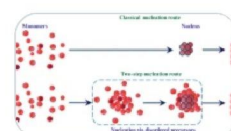
## **Physicochemical Properties of Li<sub>6</sub>Al<sub>0.05</sub>La<sub>3</sub>Zr<sub>1.75</sub>Nb<sub>0.25</sub>O<sub>12</sub> Films Fabricated by Tape Casting on Metal Substrates**



**OriginalPaper** 29 August 2025 | Pages: 364 - 370

---

## **Two-Step Nucleation and Growth of Crystals in a Supersaturated Solution with Allowance for Mass Exchange with the Environment**



**OriginalPaper** 29 August 2025 | Pages: 371 - 385

---

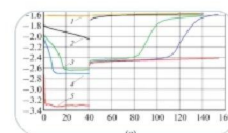
## **Effect of Li<sub>2</sub>O and LiOH on the Corrosion Behavior of Fe, Co, Ni, and 29NK Alloy in the FLiNaK Melt**



**OriginalPaper** 29 August 2025 | Pages: 386 - 394

---

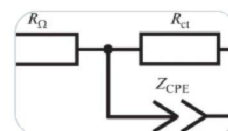
## **Activity Coefficients and Solubility of Uranium in Liquid-Metal Pb–Sn Alloys**



**OriginalPaper** 29 August 2025 | Pages: 395 – 399

---

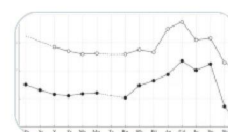
## **Effect of a Co–Mo–P–O Catalyst on the Electrochemical Properties of Electrolytic Nickel Foams**



**OriginalPaper** 29 August 2025 | Pages: 400 – 408

---

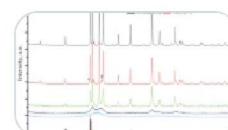
## **Emissivity of the Period V Metallic Elements of the Periodic Table during Melting: Correlation with Thermophysical Properties**



**OriginalPaper** 29 August 2025 | Pages: 409 – 414

---

## **On the Possibility of Synthesizing Polycrystalline Antimony-Doped Indium–Gallium–Zinc Oxide**



**OriginalPaper** 29 August 2025 | Pages: 415 – 420

---

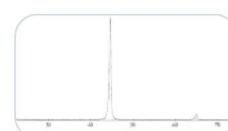
## **Diffusion Boriding of VT1-0 and VT16 Titanium in an Oxide–Halide Salt Melt**



**OriginalPaper** 29 August 2025 | Pages: 421 – 427

---

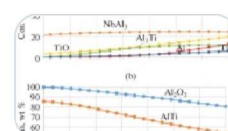
## **Effect of Melting Conditions on the Phase and Structural Composition of an Al–Ti–Zr–V–Nb–Fe Coating**



**OriginalPaper** 29 August 2025 | Pages: 428 – 434

---

## **Physicochemical Interaction in the TiAl–Nb/V Systems during Aluminothermic Synthesis**

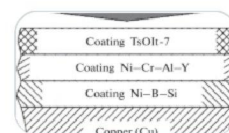


**OriginalPaper** 29 August 2025 | Pages: 435 – 442



---

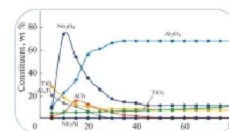
## **Effect of Laser Melting of Ni-B-Si Coatings on the Phase and Element Distribution in the Base Material**



**OriginalPaper** 29 August 2025 | Pages: 443 - 450

---

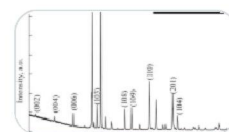
## **Effect of Rare-Earth Elements (Gd, Y) on the High-Temperature Oxidation of Al-Ti-(Nb,Ta) Alloys**



**OriginalPaper** 29 August 2025 | Pages: 451 - 457

---

## **Synthesis of Indium-Gallium-Zinc Oxide with an Increased Indium Content by Solid-State Reaction**



**OriginalPaper** 29 August 2025 | Pages: 458 - 463

---

## **Possibility of High-Entropy Alloy Formation: A Brief Review**

**OriginalPaper** 29 August 2025 | Pages: 464 - 469

---

## **Influence of CaF<sub>2</sub> on the Liquidus Temperature and Density of the Molten (CaCl<sub>2</sub>-KCl)-CaF<sub>2</sub> System**



**OriginalPaper** 29 August 2025 | Pages: 470 - 477