

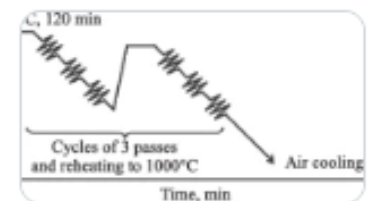


Volume 67, Issue 7-8
November 2025

23 articles in this issue

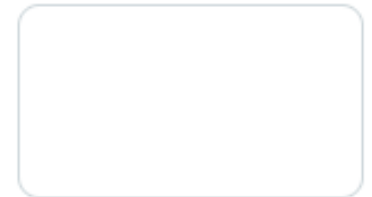
Effect of Thermomechanical Processing on the Microstructure and Mechanical Properties of a Medium Mn Steel Sheet with Nb Addition

J. L. Hernández-Rivera, M. O. Ramos Azpeitia ... A. Bedolla-Jacuinde
HEAT AND THERMOMECHANICAL TREATMENT | 14 February 2026 |
Pages: 435 - 443



Effect of Coherent Twin Boundary on High Temperature Creep Property of 321SS Without Titanium Stabilization Treatment

Gang Xu, Xiao Cheng ... Song Chen
MECHANISMS OF PLASTIC DEFORMATION AND FRACTURE |
21 February 2026 | Pages: 444 - 454



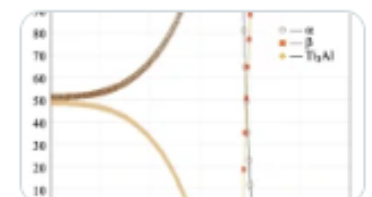
Review of Development of Domestic and Foreign Heat-Resistant Bearing Steels for Aircraft Engines and of Methods of their Heat Hardening. Part 1

T. M. Pugacheva
SPECIAL STEELS | 16 February 2026 | Pages: 455 - 461



Effect of Alloying and Heat Treatment on Formation of Two-Phase ($\alpha + \alpha_2$) Structure in Titanium Pseudo- α -Alloys

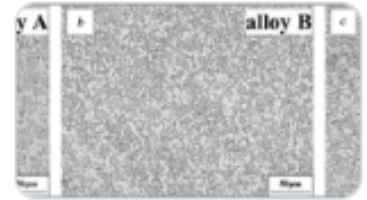
A. A. Popov, N. G. Rossina ... E. N. Popova
TITANIUM AND TITANIUM-BASED ALLOYS | 13 February 2026 |
Pages: 462 - 466



Effect of Sc and Zr Additions on Microstructure, Mechanical Properties and Corrosion Behavior of 7075 Aluminum Alloy

Qingyue Zhu, Xinying Teng ... Jinfeng Leng

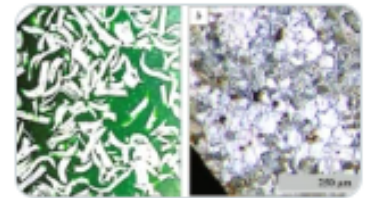
ALUMINUM AND ALUMINUM-BASED ALLOYS | 13 February 2026 | Pages: 467 – 475



Study of the Structure and Properties of Blanks Obtained from Chips of Magnesium Alloy MA5 (AZ80A)

V. N. Tsemenko, S. V. Ganin & M. Yu. Zamozdra

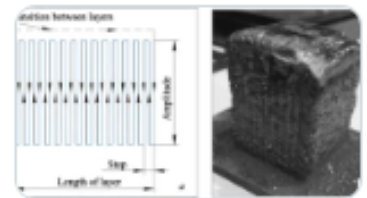
MAGNESIUM AND MAGNESIUM-BASE ALLOYS | 12 February 2026 | Pages: 476 – 482



Effect of Cooling Rate on Dimensional and Topological Characteristics of Microstructure of Steel 08G2S (A516-55) Manufactured by Additive Argon-Arc Surfacing

K. V. Makarenko, A. V. Vdovin ... A. V. Kirichek

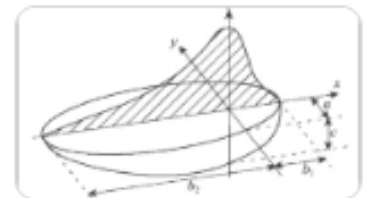
ADDITIVE TECHNOLOGIES, POWDER AND COMPOSITE MATERIALS | 12 February 2026 | Pages: 483 – 493



Dynamic Prediction of Macro-Geometry and Microstructure Analysis of High-Speed Laser Cladding

Shirui Guo, Shouwen Ding ... Bo Zheng

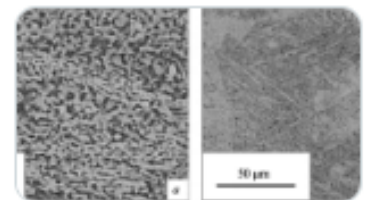
OriginalPaper | 13 February 2026 | Pages: 494 – 505



Simulation of the Thermal Cycle of Electron-Beam Welding of Alloy VT6 (Ti – 6Al – 4V) Obtained by Rolling and Selective Laser Melting. 1. Comparative Analysis of Weld Geometry and Microhardness

A. A. Yakhin & A. V. Panin

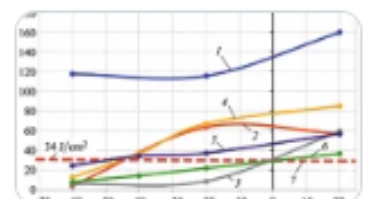
WELDED JOINTS | 14 February 2026 | Pages: 506 – 513



Effect of Heat Treatment on Service Properties of Near-Weld Zone of Steel 09G2S (9MnSi5) at Negative Temperatures

S. A. Yalygin, N. O. Shaposhnikov ... D. V. Nechaev

OriginalPaper | 14 February 2026 | Pages: 514 – 520

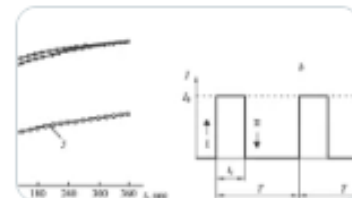


Structure and Deformability of Alloys Assisted by Pulse Current

V. V. Stolyarov

MECHANISMS OF PLASTIC DEFORMATION AND FRACTURE

17 February 2026 | Pages: 521 – 529



Review of Development of Domestic and Foreign Heat-Resistant Bearing Steels for Aircraft Engines and of Methods of Their Heat Hardening. Part 2

T. M. Pugacheva

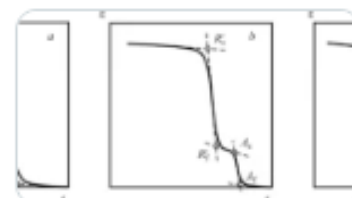
SPECIAL STEELS | 16 February 2026 | Pages: 530 – 534



Effect of Stage Aging on the Structure and Martensitic Transformation Temperatures of Alloy Ti – 55.6 Wt.% Ni

M. Yu. Kollerov, D. E. Gusev ... E. A. Lukina

FUNCTIONALITY ALLOYS | 16 February 2026 | Pages: 535 – 543



Microstructure and Properties of Ti–V–Al – Zr Lightweight High-Temperature Shape Memory Alloy Fabricated by Arc-Based Additive Manufacturing

G. Liang, J. Zhao ... X. Zhang

OriginalPaper | 16 February 2026 | Pages: 544 – 550

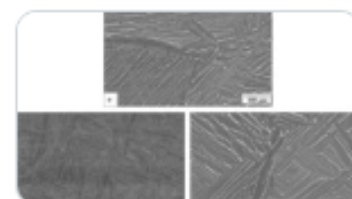


Features of Structure Formation, Phase Composition, and Properties in Near- α -Titanium Alloys of the Ti – Al – Zr – Sn – Ta – Si System

I. V. Narygina, N. A. Popov ... I. A. Korelin

TITANIUM AND TITANIUM-BASED ALLOYS | 17 February 2026 |

Pages: 551 – 558

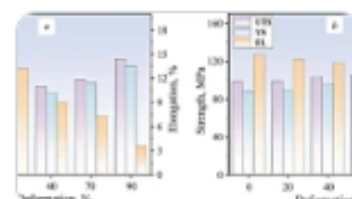


Evolution of Microstructure and Properties of Al Wires after Drawing Deformation and Annealing

Lin Chen, Meigui Ou ... Yu Liang

ALUMINUM AND ALUMINUM-BASED ALLOYS | 16 February 2026 |

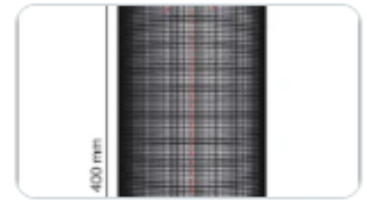
Pages: 559 – 567



Effect of Crucible Diameter on the Microstructure of an Al – Si Alloy Prepared by Controlled Diffusion Solidification

Xuqiang Yang & Tijun Chen

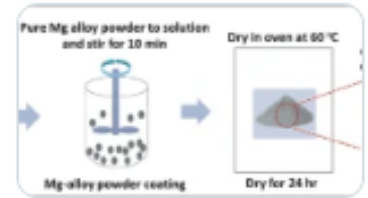
OriginalPaper | 14 February 2026 | Pages: 568 – 578



Design and Preparation of Magnesium Alloys with Controllable Biodegradation

Yi-Chia Lai, Wei-Zhi Huang ... Ren-Yu Chen

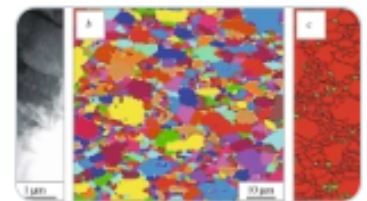
MAGNESIUM AND MAGNESIUM-BASE ALLOYS | 13 February 2026 | Pages: 579 – 586



Simulation of the Thermal Cycle of Electron-Beam Welding of Alloy VT6 (Ti – 6Al – 4V) Obtained by Rolling and Selective Laser Melting. 2. Comparative Analysis of Microstructures and Phase Compositions

A. A. Yakhin & A. V. Panin

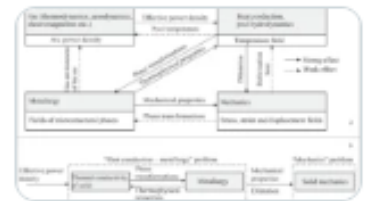
WELDED JOINTS | 13 February 2026 | Pages: 587 – 595



Effect of Phase Transformations on Thermal and Mechanical Processes in Welding of Low-Alloy Steel

M. K. Tishkov, Y. Aldaiee ... A. M. Levchenko

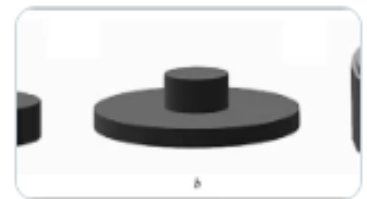
OriginalPaper | 20 February 2026 | Pages: 596 – 606



Effect of Friction Stir Spot Welding Process Parameters on the Quality of Aluminum Alloy Sheet Joints: Simulation and Experiment

A. A. Naumov, A. D. Mikulenko ... S. Yu. Kondrat'ev

OriginalPaper | 16 February 2026 | Pages: 607 – 615



Effect of Interpass Temperature During Multipass Friction Stir Welding on Mechanical Properties of Age Hardened AA2024-T4 Aluminum Alloy Welded Joints

Sunil Kumar Yadav, Mohd Zaheer Khan Yusufzai ... D. K. Singh

OriginalPaper | 16 February 2026 | Pages: 616 – 622



Effect of Interrupted Quenching on the Microstructure, Mechanical Properties and Dislocation Density of Steel AISI 4340

Burak Nalcaci, Omer Cihad Aydin ... Volkan Kilicli

OriginalPaper | 09 February 2023 | Pages: 623 – 632

