

METALS AND MATERIALS International

Volume 30 · Number 8 · August 2024

ORIGINAL ARTICLES

Melting Properties and Phase Composition

Transformation of Ti-Bearing Electric Furnace Slags in CaO–SiO₂–MgO–Al₂O₃–50%TiO₂ System

J. Jing · Y. Guo · S. Wang · F. Chen · L. Yang · J. Yang · F. Xu · L. Yu **2045**

Effect of Al Content on Microstructure and Mechanical Properties of the fcc and bcc Phases of Al_xCoCrFeNi High Entropy Alloys

G. Shang · J. Wang · Z.-Z. Liu · X.-G. Lu **2057**

High Temperature Melt Viscosity Prediction Model Based on BP Neural Network

X. Fan · S. Gao · J. Zhang · K. Jiao **2067**

Effect of Initial Microstructures on Planar Tensile Anisotropy and Fatigue Crack Growth of Creep Age Formed 2050 Al–Li Alloy

Y. Dong · L. Ye · P. Wang · Z. Shen · X. Yang · X. He **2077**

A Practical Inverse Identification of Johnson–Cook Parameters at Intermediate Strain Rates Using Split Hopkinson Pressure Bar Test

Y.-M. Jeong · S. Hong · J.Y. Won · C. Kim · M.-G. Lee **2093**

Synergetic Effect of Sc Micro-alloying and Low-Frequency Electromagnetic Casting in 7A36 Aluminum Alloy with Enhanced Mechanical and Corrosion Properties

L. Yang · F. Yu · C. Chen · Y. Xu · Z. Song · J. Cui · X. Wang **2110**

Utilization of Hot Deformation to Trigger Strain-Induced Boundary Migration, Particle-Stimulated Nucleation, and Influence of Nano-Precipitates on Mechanical Properties in High-Alloyed Al–Zn–Mg–Cu Alloys

S. Dai · M. Qi · L. Liao · W. Yao · J. Li **2127**

Change in Failure Behavior and Fatigue Life of Single-Crystal Ni-Based Superalloys Under Thermomechanical Fatigue Loading

V.H. Dao · H.S. Yun · J.S. Koo · P. Jaeyeong · S.H. Nahm **2143**

Effect of Silicide and α₂ Phase on the Creep Behavior of TC25G Alloy at High Temperature

Z. Liu · S. Xin · Y. Zhao · B. Dang **2158**

Correction: Effect of Silicide and α₂ Phase on the Creep Behavior of TC25G Alloy at High Temperature

Z. Liu · S. Xin · Y. Zhao · B. Dang **2169**

Influence of Short-Term Aging Treatment on Precipitation Behavior of DD6 Single-Crystal Superalloy

X. Li · Y. Xie · Y. Huang · Y. Zhao · Y. Sun · C. Zhao · H. Zhang **2171**

Modelling of Meniscus Behavior and Slag Consumption During Initial Casting Stage of Continuous Casting Process

W. Tong · S. Luo · W. Wang · M. Zhu **2183**

Thermodynamic Calculation on Glass Forming Ability of Mo-Co-B System

Y. Zhang · S. Sun · H. Wang **2205**

Effect of Solution Annealing Temperature on Liquation Cracking Susceptibility of Alloy 617M

M. Divya · C. Mahata · K.G. Pradeep · C.R. Das · M. Vasudevan **2215**

Enhanced Interfacial Joining Strength of Mg/Ti Bimetal Casting via 3D-Printed Ti-Based Lattice Material

Y. Wu · J. Zhao · L. Yu · C. Gu **2229**

Influence of Patterns on Mechanical Properties of Ultrasonically Welded Joints in Copper Substrate and Wire

Z. Abbas · F. Teng · L. Zhao · M.S. Islam **2250**

Effect of Solidification Cooling Rates and Subsequent Homogenization Treatment on Mn–Cr–Mo Element Segregation in Oil Casing Steels

C. Liang · G. Song · L. Liang · W. Wang · J. Zeng **2269**

Contents continued on inside back cover

Contents continued from back cover

Effects of Ultrasonic Surface Rolling Processing on the Surface Properties of 4Cr13 Stainless Steel

X. Luo · D. Jia · S. Zhan · J. Tu · Y. Li · T. Yang ·
H. Duan **2282**

Texture Analyses and Mechanical Behavior of a High-Mn Steel Subjected to Different Pass Number of Simple Shear

M.N. da Silva Lima · S.F. Rodrigues · M. Al-Maharbi ·
L. Ortiz-Membrado · M.V.G. Rodrigues · J.C. Muñoz ·
E. Jiménez-Piqué · G.S. Reis · J.M.C. Marrero ·
H.F.G. de Abreu **2296**

Microstructure Evolution and Property of Spray-Formed Cu-10 wt% Fe Alloy During Cold Rolling

S. Huang · W. Niu · G. Wang · F. Hua · J. Li · G. Wang **2316**

Effects of Carbon Nanotubes and Nickel-Plated Carbon Nanotubes on the Microstructure and Mechanical Properties of AlCoCrFeNiCu High Entropy Alloy

J. Lv · J. Du · R. Hu · S. He · J. Chen · C. Qin · Z. Wang · Y. Gou ·
R. Zhang **2331**

Further articles can be found at link.springer.com

Abstracting & Indexing Services: Science Citation Index, Science Citation Index Expanded (SciSearch), Journal Citation Reports/Science Edition, SCOPUS, INSPEC, Astrophysics Data System (ADS), Chemical Abstracts Service (CAS), Google Scholar, Current Contents/Engineering, Computing and Technology, Earthquake Engineering Abstracts, EBSCO Discovery Service, Engineered Materials Abstracts, Ceramics, Gale, Gale Academic OneFile, INIS Atomindex, METADEX (Metals Abstracts), OCLC WorldCat Discovery Engineering Abstracts, EBSCO Discovery Service, Engineered Materials Abstracts, Ceramics, Gale, Gale Academic OneFile, INIS Atomindex, METADEX (Metals Abstracts), OCLC WorldCat Discovery Service, ProQuest Materials Science & Engineering Database, ProQuest SciTech Premium Collection, ProQuest Technology Collection, ProQuest-ExLibris Primo, ProQuest-ExLibris Summonn

Instructions for authors for *Met. Mater. Int.* are available at www.springer.com/12540

Cover image from Yeong-Min Jeong, Seojun Hong,
Jung Yun Won, Chanyang Kim, Myoung-Gyu Lee,
Met. Mater. Int. **30**, 2093 (2024)