



ISSN 1003-6326
CODEN TNMCEW

Transactions of Nonferrous Metals Society of China

中国有色金属学报(英文版)

April 2017

Volume 27 Number 4

www.tnmsc.cn
f-ysxb@csu.edu.cn

CONTENTS

Structural Materials

- Effect of 0.3% Sc on microstructure, phase composition and hardening of Al–Ca–Si eutectic alloys
.....Nikolay BELOV, Evgenia NAUMOVA, Torgom AKOPYAN (741)
- Microstructure evolution during homogenization of Al–Mg–Si–Mn–Fe alloys: Modelling and experimental results
.....C. L. LIU, H. AZIZI-ALIZAMINI, N. C. PARSON, W. J. POOLE, Q. DU (747)
- Thermal stability evaluation of nanostructured Al6061 alloy produced by cryorolling
.....M. ABBASI-BAHARANCHI, F. KARIMZADEH, M. H. ENAYATI (754)
- Temperature dependence of microstructure and texture in cold drawn aluminum wire
.....Xiao-guang MA, Jian CHEN, Yang YANG, Lei LI, Zheng CHEN, Wen YAN (763)
- Influence of TiB₂ nanoparticles on elevated-temperature properties of Al–Mn–Mg 3004 alloy
.....Kun LIU, A. M. NABAWY, X. G. CHEN (771)
- Fabrication of Al/Al₂Cu in situ nanocomposite via friction stir processing
.....M. AZIZIEH, D. IRANPARAST, M. A. G. DEZFULI, Z. BALAK, H. S. KIM (779)
- Influence of multi-pass friction stir processing on microstructure and mechanical properties of 7B04-O Al alloy
.....Yu CHEN, Hua DING, S. MALOPHEYEV, R. KAIBYSHEV, Zhi-hui CAI, Wen-jing YANG (789)
- Effect of Dy addition on microstructure and mechanical properties of Mg–4Y–3Nd–0.4Zr alloy
.....Hong-hui LIU, Zhi-liang NING, Jun-ying YI, Qian MA,
Hai-chao SUN, Yong-jiang HUANG, Jian-fei SUN (797)
- Machining characteristics of fine grained AZ91 Mg alloy processed by friction stir processing
.....G. V. V. SURYA KIRAN, K. HARI KRISHNA, Sk. SAMEER, M. BHARGAVI, et al (804)
- Microstructure characteristics and liquation behavior of fiber laser welded joints of Mg–5Zn–1Mn–0.6Sn alloy
sheets.....Qing-yuan SHE, Hong-ge YAN, Ji-hua CHEN, Bin SU, Zhao-hui YU, Chao CHEN, Wei-jun XIA (812)
- Influence of Mo content on microstructure and mechanical properties of β -containing TiAl alloy
.....Wen-chen XU, Kai HUANG, Shi-feng WU, Ying-ying ZONG, De-bin SHAN (820)
- Wear behavior of Ti6Al4V biomedical alloys processed by selective laser melting, hot pressing and conventional
casting.....F. BARTOLOMEU, M. BUCIUMEANU, E. PINTO,
N. ALVES, F. S. SILVA, O. CARVALHO, G. MIRANDA (829)

Functional Materials

- Sliding wear characteristics of solid lubricant coating on titanium alloy surface modified by laser texturing and
ternary hard coatings.....M. PREM ANANTH, R. RAMESH (839)
- Mechanical and corrosion properties of Ti–35Nb–7Zr–xHA composites fabricated by spark plasma sintering
.....Zheng-yuan HE, Lei ZHANG, Wen-rui SHAN, Yu-qin ZHANG, Rong ZHOU, Ye-hua JIANG, Jun TAN (848)
- Glass formation and magnetic properties of Fe-based metallic glasses fabricated by low-purity industrial materials
.....Man ZHU, Yang FA, Zeng-yun JIAN, Li-juan YAO,
Chang-qing JIN, Jun-feng XU, Rui-hua NAN, Fang-e CHANG (857)
- Optical properties and magnetic properties of antisite-disordered Ni_{1-x}Co_xCr₂O₄ spinels
.....Yu GAO, Hong CHANG, Qiang WU, Hong-yan WANG,
Yan-bo PANG, Fang LIU, Hong-jing ZHU, Yue-hou YUN (863)

Hydrothermal synthesis and enhanced photocatalytic activity of hierarchical flower-like Fe-doped BiVO₄
.....Hai-bin LI, Jian ZHANG, Guo-you HUANG, Sheng-hao FU,
Chao MA, Bai-yu WANG, Qian-ru HUANG, Hong-wei LIAO (868)

Mine Engineering, Metallurgical Engineering, Chemistry and Chemical Engineering

- Relationship between loading angle and displacing angle in steel bolt shearing
.....Yu CHEN, Ping CAO, Ke-ping ZHOU, Yun TENG (876)
- Depressing behaviors and mechanism of disodium bis (carboxymethyl) trithiocarbonate on separation of
chalcopyrite and molybdenite.....Zhi-gang YIN, Wei SUN, Yue-hua HU, Qing-jun GUAN,
Chen-hu ZHANG, Yue-sheng GAO, Ji-hua ZHAI (883)
- Leaching of chromite ore in concentrated KOH by catalytic oxidation using CuO as catalyst
.....Long-jie LIU, Hao DU, Yang ZHANG, Shi-li ZHENG, Yi ZHANG (891)
- Leaching of iron concentrate separated from kiln slag in zinc hydrometallurgy with hydrochloric acid and its
mechanism.....Hong-jun WANG, Zhi-yong LIU, Zhi-hong LIU,
Yu-hu LI, Si-wei LI, Wen-Hai ZHANG, Qi-hou LI (901)
- Effects of iron-containing phases on transformation of sulfur-bearing ions in sodium aluminate solution
.....Xiao-bin LI, Fei NIU, Gui-hua LIU, Tian-gui QI, Qiu-sheng ZHOU, Zhi-hong PENG (908)
- Selection of reductants for extracting selenium and tellurium from degoldized solution of copper anode slimes
.....Fu-yuan ZHANG, Ya-jie ZHENG, Guo-min PENG (917)
- Cascade sulfidation and separation of copper and arsenic from acidic wastewater via gas-liquid reaction
.....Guo-min JIANG, Bing PENG, Li-yuan CHAI,
Qing-wei WANG, Mei-qing SHI, Yun-yan WANG, Hui LIU (925)
- Electrochemical response to biomass of bacterial cells of *Achromobacter* sp. CH-1 growth
.....Yun-yan WANG, Li-yuan CHAI, Qing-wei WANG, Zhi-hui YANG, Rong DENG (932)
- Physiological characteristics of *Ficus tikoua* under antimony stress
.....Li-yuan CHAI, Yong WANG, Zhi-hui YANG, H. MUBARAK, N. MIRZA (939)
- Copper smelting mechanism in oxygen bottom-blown furnace...Qin-meng WANG, Xue-yi GUO, Qing-hua TIAN (946)
- Hot corrosion of modified Ti₃Al-based alloy coated with thin Na₂SO₄ film at 910 and 950 °C in air
.....Yu-hai QIAN, Xi-chao LI, Mei-shuan LI, Jing-jun XU, Bin LU (954)
- Interfacial microstructure evolution and mechanical properties of Al/Sn joints by ultrasonic-assisted soldering
.....Wei-bing GUO, Tian-min LUAN, Xue-song LENG, Jing-shan HE, Jiu-chun YAN (962)
- Editorial Committee of Transactions of Nonferrous Metals Society of China**(Inside front cover)
- Information for Contributors**(Inside back cover)

Managing Editors: Xiang-qun LI, Wei-ping CHEN

Serial parameter: CN43—1239/TG*1991*m*A4*230*en*P*\$50.00*1000*29*2017-04