

CONTENTS

Microstructure and properties of alumina-silicon carbide nanocomposites fabricated by pressureless sintering and post hot-isostatic pressing.....	Young-Keun JEONG, Koichi NIIHARA(1)
Formation of interfacial brittle phases sigma phase and IMC in hybrid titanium-to-stainless steel joint	Min Ku LEE, Jung Gu LEE, Jong Keuk LEE, Sung Mo HONG, Sang Hoon LEE, Jin Ju PARK, et al(7)
Lubrication properties of silver-palladium alloy prepared by ion plating method for high temperature stud bolt	Jung-Dae KWON, Sunghun LEE, Koo-Hyun LEE, Jong-Joo RHA, Kee-Seok NAN, Se-Hun KWON(12)
Improvement of hydrogen embrittlement and stress corrosion cracking by annealing for Al-4.4Mg-0.6Mn alloy	Seong-Jong KIM, Min-Su HAN, Seong-Kweon KIM, Seok-Ki JANG(17)
Effect of CaO composition on oxidation and burning behaviors of AM50 Mg alloy.....	Jin-Kyu LEE, Shae K. KIM(23)
Characteristic evaluation of Al ₂ O ₃ /CNTs hybrid materials for micro-electrical discharge machining	Hyun-Seok TAK, Chang-Seung HA, Ho-Jun LEE, Hyung-Woo LEE, Young-Keun JEONG, et al(28)
Dispersion of ultrafine SiC particles in molten Al-12Si alloy	Jin-Ju PARK, Sang-Hoon LEE, Min-Ku LEE, Chang-Kyu RHEE(33)
Improvement of machining quality of copper-plated roll mold by controlling temperature variation	Tae-Jin JE, Eun-Chae JEON, Sang-Cheon PARK, Doo-Sun CHOI, Kyung-Hyun WHANG, et al(37)
Structural considerations in friction welding of hybrid Al ₂ O ₃ -reinforced aluminum composites	In-Duck PARK, Choon-Tae LEE, Hyun-Soo KIM, Woo-Jin CHOI, Myung-Chang KANG(42)
CO ₂ laser-micro plasma arc hybrid welding for galvanized steel sheets.....	C. H. KIM, Y. N. AHN, J. H. KIM(47)
Fabrication of cast carbon steel with ultrafine TiC particles	Sang-Hoon LEE, Jin-Ju PARK, Sung-Mo HONG, Byoung-Sun HAN, Min-Ku LEE, Chang-Kyu RHEE(54)
Effect of aging treatment on irradiation-induced segregation of high Mn-Cr steel	D. S. BAE, S. P. LEE, Y. R. CHO, H. TAKAHASHI(58)
Effects of Cr interlayer on mechanical and tribological properties of Cr-Al-Si-N nanocomposite coating	Young Su HONG, Se Hun KWON, Tiegang WANG, Doo-In KIM, Jihwan CHOI, Kwang Ho KIM(62)
Electrodeposition behavior and characteristics of Ni-carbon nanotube composite coatings	Sung-Kyu KIM, Tae-Sung OH(68)
Formation of nanocrystalline microstructure in arc ion plated CrN films	Qi-min WANG, Se-Hun KWON, Kwang-Ho KIM(73)
Effect of carbon on microstructure of CrAlC _x N _{1-x} coatings by hybrid coating system	Sung-Kyu AHN, Se-Hun KWON, Kwang-Ho KIM(78)
Effects of honing treatment on AlP-TiN and TiAlN coated end-mill for high speed machining	Jae-Young HEO, Sung-Hak CHO, Tae-Jin JE, Kwang-Ho KIM, Hyung-Woo LEE, Myung-Chang KANG(83)
Hybrid functional IrO ₂ -TiO ₂ thin film resistor prepared by atomic layer deposition for thermal inkjet printheads	Won-Sub KWACK, Hyoung-Seok MOON, Seong-Jun JEONG, Qi-min WANG, Se-Hun KWON(88)
Thin film processing and multiferroic properties of Fe-BaTiO ₃ hybrid composite	Pan YANG, Jin-song ZHU, Jai-Yeoul LEE, Hee Young LEE(92)
Properties of multilayer gallium and aluminum doped ZnO(GZO/AZO) transparent thin films deposited by pulsed laser deposition process.....	Jin-Hyun SHIN, Dong-Kyun SHIN, Hee-Young LEE, Jai-Yeoul LEE(96)
Fabrication of curved micro structures on photoresist layer	Jae Sung YOON, Tae-Jin JE, Doo-Sun CHOI, Sung Hwan CHANG, Kyung-Hyun WHANG(100)
Effect of coating material and lubricant on forming force and surface defects in wire drawing process	S. M. BYON, S. J. LEE, D. W. LEE, Y. H. LEE, Y. LEE(104)

Experimental and finite element analysis for fracture of coating layer of galvanized steel sheet	S. I. KIM, J. U. HER, Y. C. JANG, Y. LEE(111)
Distribution of electric field for carbon nanotube assembly: Simulation (I)	Soon-Geun KWON, Soo-Hyun KIM, Kwang-Ho KIM, Myung-Chang KANG, Hyung-Woo LEE(117)
Distribution of electric field for carbon nanotube assembly: Experiments (II)	Soongeun KWON, Soo-Hyun KIM, Kwang-ho KIM, Myung-chang KANG, Hyung-woo LEE(121)
Dielectrophoretic assembly of semiconducting single-walled carbon nanotube transistor	Se-Hun KWON, Young-Keun JEONG, Soongeun KWON, Myung-Chang KANG, Hyung-Woo LEE(126)
Effect of ammonia gas etching on growth of vertically aligned carbon nanotubes/nanofibers	Sang-Gook KIM, Sooh-Yung KIM, Hyung-Woo LEE(130)
Collapse behavior evaluation of hybrid thin-walled member by stacking condition	Kil-Sung LEE, Hyeon-Kyeong SEO, Yong-June YANG, Woo-Chae HWANG, Kwang-Hee IM, et al(135)
Effect of nanoclay on properties of porous PVdF membranes	Hae-Young HWANG, Deuk-Ju KIM, Hyung-Jun KIM, Young-Taik HONG, Sang-Yong NAM(141)
Injection molding of micro patterned PMMA plate	Yeong-Eun YOO, Tae-Hoon KIM, Tae-Jin JE, Doo-Sun CHOI, Chang-Wan KIM, Sun-Kyung KIM(148)
Synthesis of crosslinked polystyrene particles by seeded batch polymerization with monomer absorption	Ki-Chang LEE, Han-Ah WI(153)
Comparative analysis on homogeneity of Pb and Cd in epoxy molding compounds	Kyun-Gmee LEE, Yong-Keun SON, Jin-Sook LEE, Tai-Min NOH, Hee-Soo LEE(160)
Optical diffraction gratings embedded in BK-7 glass by low-density plasma formation using femtosecond laser	Jung-Kyu PARK, Sung-Hak CHO, Kwang-Ho KIM, Myung-Chang KANG(165)
Creep and tensile properties of press molding joined GMT-sheets	Jin-Woo KIM, Dong-Gi LEE(170)
Reliability of flip-chip bonded RFID die using anisotropic conductive paste hybrid material	Jun-Sik LEE, Jun-Ki KIM, Mok-Soon KIM, Namhyun KANG, Jong-Hyun LEE(175)
²⁷ Al MAS-NMR study of inorganic polymer formation at ambient temperature	Sang-Wook AHN, Hee-Soo LEE, Wan-Hee YANG, Jung-Woo LEE, Young-Keun JEONG(182)
Simulation and prediction in laser bending of silicon sheet	WANG Xu-yue, XU Wei-xing, XU Wen-ji, HU Ya-feng, LIANG Yan-de, WANG Lian-ji(188)
Experimental investigation of friction coefficient in tube hydroforming	Hyae Kyung YI, Hong Sup YIM, Gun Yeop LEE, Sung Mun LEE, Gi Suk CHUNG, et al(194)
Optimal design considering structural efficiency of compressed natural gas fuel storage vessels for automobiles	Myung-Chang KANG, Hyung Woo LEE, Chul KIM(199)
Portable nano probe for micro/nano mechanical scratching and measuring	Woo-Park JEONG, Chang-Choi SOO, Cho HYUN, Woo-Lee DEUG(205)
Selective removal technology using chemical etching and excimer assistance in precision recycle of color filter	Pai-shan PA(210)

Editorial Committee of Transactions of Nonferrous Metals Society of China.....(Inside front cover)
Information for Contributors.....(Inside back cover)

Managing Editors: YUAN Sai-qian, YANG Hua