

Table of Contents

Preface

Chapter 1: Conventional and Advanced Structural Metals

Development and Characterization of Aluminum Bronze Alloy Bush Sleeve Using Horizontal Centrifugal Casting M. Nadeem Azam and A. Wakeel	3
Research on the Cavitation Resistance Testing of Friction Stir Welded Joint of Cu99 Cooper C. Besalic, A.N. Luca, G.V. Mnerie, L. Botila, C. Ghera and R. Bădăraș	13
Considerations on the Behaviour and Resistance of Aluminium Alloys to Cavitation Erosion I. Bordeasu, A.N. Luca, C. Ghera, C.L. Salcianu, D. Ostoia and L.M. Micu	21
Structure and Properties of AlCrCo_(1-x)Fe_(1+x)Ni₂ High Entropy Alloy S.Z. Abbas, R.A. Sandhu and F.A. Khalid	35
Effect of Heat Treatment on Impact Transition Temperature of High Strength Low Alloy Steel (HSLA) Steel Rods S. Akhtar	43
A Review of Welding Techniques for Dissimilar Alloys: Titanium-Nickel System Q.M. Yaseen, R.M. Gul, F.N. Khan and M.N. Baig	49
Investigation of the Influence of Bonding Parameters on the Homogenous Diffusion Bonding of Copper S. Khan, K. Khadija and M. Junaid	63

Chapter 2: Advanced Materials and Technologies for Pollutant Removal

Self-Assembled Hierarchical Bi₂WO₆ Microspheres for Effective Photocatalytic Cr(VI) Reduction and H₂ Evolution J.C. Sin, J.H. Tan, S.M. Lam and H.H. Zeng	73
Hydrogel for Aqueous Methylene Blue Removal: Natural Rubber/ Poly(ethylene Glycol) Methyl Ether Methacrylate Semi-IPN P. Thusanaphoom, T. Yingshataporn-a-nan, L. Sunthornwaree, P. Laohasathit, E. Martwong, J. Jitcharoen and N. Sukhawipat	79
Bifunctional Fe₂WO₆/SrTiO₃ Composites with Eminent Antibacterial and Photocatalytic Studies S.M. Lam, J.C. Sin, L. Zhao and H.H. Zeng	87
Innovative Lead Removal: Natural Rubber Latex Foam/Coconut Shell-Based Activated Carbon Composite on Flexible Substrates N. Sukhawipat, A. Limrueangamphon, C. Intachai, K. Aopoom, T. Navanuch, J. Upan, B. Sukkaneewat, Y. Wongnongwa and N. Sosa	93
Enhancing Wastewater Treatment Efficiency through Photosynthetic Bacteria Activation T. Chotchuangchutchaval, T. Inthakesorn, A. Ruemchatskul and S. Limrungruengrat	101
An Experimental Investigation on Enhancing Nitrogen Oxides Reduction of Non-Thermal Plasma (NTP) Aftertreatment System with Silver-Base Catalyst with NTP Downstream SCR Catalyst Configuration W. Temwuthikun, P. Promhuad, T. Iamcheerangkoon, B. Sawatmongkon, K. Theinnoi and S. Sittichompoo	109