

Table of Contents

Preface

Chapter 1: Key Engineering Materials

Effect of Different Melt Treatment Methods on Microstructure and Thermal Stability of Al-Si Alloy

X.S. Li, R. Liao and W.Y. Zhong 3

Photoluminescence of Silver-Doped ZnO Nanostructures

B.C.P. Millán, C.E.C. Montufar, F.M. Hernández and E.V. Hernández 11

Chapter 2: Materials for Biomedical Applications

Experimental Study on the Wear Characteristics of Textured Joint Surfaces under Bionic Lubrication

C.X. Zhu, X.Y. Wang and W. Ma 19

Recent Trends and Notable Advances of Alginate Based Nano-Particles for Effective Biomedical Materials: Wound Healing and Drug Delivery

S. Kim 27

Chapter 3: Materials and Technologies in Construction

An Example of the Use of Photogrammetry for Archiving the Shapes of Natural Materials and Creations

J. Udvaros and O. Takáč 35

Smart Contracts in Construction from Management to Materials: Acting as a Bridge between the Two

N. Forman and J. Udvaros 41