## Table of Content

**Chapter 1**  Upgrading of Laterite Ore by Reduction and Leaching  
_Hadi Purwanto and Pramusanto_  

**Chapter 2**  Upgrading of Iron Sand by Magnetic Concentration and Reduction  
_Muta’alim, Hadi Purwanto, Nuryadi Saleh and Pramusanto_  

**Chapter 3**  Microstructure and Mechanical Properties of Neutron Transmutation Doped of Silicon under Cf-252 Neutron Bombardment  
_Agus Geter Edy Sutjipto, Roslan Yahya_  

**Chapter 4**  Effect of Stabilizer Addition on Crystal Formation of Zirconia Synthesize From Zircon Sand  
_Yuhelda Dahlan Hadi Purwanto, Nuryadi Saleh and Pramusanto_  

**Chapter 5**  Upgrading of Iron-rich Laterite Ore Using Reverse Flotation  
_Hadi Purwanto, Mutaalim, Yuhelda Dahlan, Nuryadi Saleh and Pramusanto_  

**Chapter 6**  Influences of Additives on Copper Film Quality and Gap Filling Capability of Plating Process  
_Shahjahan Mridha and Law Shao Beng_  

**Chapter 7**  Grain Refining in AISI 430 Ferritic Stainless Steel Welds by Addition of Metal Powder  
_Shahjahan Mridha and Muhammed Olawale Hakeem Amuda_  

**Chapter 8**  Grain Refinement Practices in Ferritic Stainless Steel Welds  
_Muhammed Olawale Hakeem Amuda and Shahjahan Mridha_  

**Chapter 9**  Alloy Coating on Steel Surfaces by Melt Synthesis of Elemental Metal Powders  
_Shahjahan Mridha_
Chapter 10
Synthesis And Characterization of Lithium Manganese Copper Oxides for use in Lithium Rechargeable Cells
I.I. Yaacob, N. Kamarulzaman, and W.J. Basirun

Chapter 11
Influence of Grain Size on Magnetic Properties of Electroplated NiFe
Yusrini Marita and Iskandar Idris Yaacob

Chapter 12
Composite Coating on Titanium Alloy Using High Power Laser
Shahjahan Mridha

Chapter 13
The Tribological Behaviour of Al-Si Automotive Piston Material
Arifuzzaman and Md Abdul Maleque

Chapter 14
Conceptual Design of Folding Bicycle Frame with Light Weight Materials
Md Abdul Maleque and Mohd Nizam

Chapter 15
Reverse Engineering of Automotive Piston
Md Abdul Maleque and A. Arifuzzaman

Chapter 16
Recent Trend in Application of High Temperature Ferritic Fe-Cr Alloys in Power Plant
Mohd Hanafi Bin Ani and Raihan Othman

Chapter 17
Measurement of Oxygen Permeability in Bulk Alloys by Internal Oxidation of Dilute Constituent
Mohd Hanafi Bin Ani and Raihan Othman

Chapter 18
Recent Trend on Application of High Temperature Ferritic Fe-Cr Alloys in Solid Oxide Fuel Cells
Mohd Hanafi Bin Ani and Raihan Othman

Chapter 19
Principle of Solid Electrolyte Oxygen Sensor
Mohd Hanafi Bin Ani and Raihan Othman

Chapter 20
Surface Oxygen Potential on the Oxide Scale during High Temperature Oxidation of Fe-Cr Alloys at 1073 K
Mohd Hanafi Bin Ani and Raihan Othman
Chapter 21
Reverse Engineering for Automotive Fuel Tank
Md Abdul Maleque and Atiqah Afzaluddin

Chapter 22
The possibility of utilizing scanning electron microscope for materials characterization
Agus Geter Edy Sutjipto

Chapter 23
Piezoelectricity of Zinc Oxide Thin film as Source of Energy for Sensor Applications
Agus Geter Edy Sutjipto, Liyana Abdul Gafar and Nor Azyati Syazwina Roselan

Chapter 24
Study on Zinc Oxide Crystal Growth
Agus Geter Edy Sutjipto, Liyana Abdul Gafar and Nor Azyati Syazwina Roselan

Chapter 25
Green Nanotechnology using SEM and AFM
A.G.E. Sutjipto and R. Muhida

Chapter 26
The effect of Cobalt addition on structural and magnetic properties of electrodeposited Iron-Platinum nanocrystalline thin films
Seoh Hian Teh, Iskandar Idris Yaacob

Chapter 27
Mechanochemical Synthesis of CeO₂ Nanopowder using Planetary Ball Milling
Iskandar I. Yaacob

Chapter 28
A Study on Double Junction Zinc Based/Polymer Thin Film Solar Cell
S. A. Mohamad and A. K. Arof

Chapter 29
A Voltammetric Study of Zinc Telluride Thin Films Prepared for Photovoltaic Applications
S. A. Mohamad and A. K. Arof

Chapter 30
Electrodeposition Technique for ZnO Semiconductor Thin Films Fabrication
S. A. Mohamad

Chapter 31
Electroless Nickel Based Coatings From Solution Containing Sodium Hypophosphite
Suryanto
Chapter 32
Aluminum Spray Coating for Corrosion Resistance of Steel

Chapter 33
Electrodeposition of Alloys

Chapter 34
Corrosion Behavior of Duplex Stainless Steel in Sea Water

Chapter 35
Cathodic Protection of Underground Pipes