

Table of Contents

Contributors and Editors Text

Probing Materials by Positron Annihilation Technique and Mossbauer Spectroscopy - Review

M. Chakrabarti, S. Chattopadhyay, D. Sanyal, A. Sarkar and D. Jana 1

Review on Magnesium Indium Oxide Thin Films: Material Properties and Preparation Techniques

B. Anuradha and C. Sanjeeviraja 39

Synthesis of Lanthanum Nickelate and Praseodymium Substituted Compounds by Molten Salt Technique

S.I. Arockiam, L.J. Berchmans, S. Angappan, A. Visuvasam and V. Mani 67

Synthesis and Characterization of the Nano Semiconducting Material Cadmium Sulphide

S.S.K. Jacob, S. S. and R. Saravanan 79

Effect of Annealing on Cold Worked D9 Alloy by Photoacoustics

P. Palanichamy, M. Sivabharathy, K. Jeyadheepan, P. Kalyanasundaram, K. Ramachandran and C. Sanjeeviraja 89

Experimental Electronic Structure of the Thermoelectric Materials Bi_2Te_3 and Sb_2Te_3

T. Akilan, M.C. Robert and R. Saravanan 103

Ultrasonic, Metallographic and Photo Acoustic Studies on Zircaloy-2

P. Palanichamy, M. Sivabharathy, K. Jeyadheepan, P. Kalyanasundaram, K. Ramachandran and C. Sanjeeviraja 123

Laser Shot Peening of 304 Austenitic Stainless Steel without Protective Coating

S. Sathyajith, S. Kalainathan and S. Swaroop 131

X-Ray and Photoacoustic Studies on Zircaloy-2

P. Palanichamy, M. Sivabharathy, K. Jeyadheepan, P. Kalyanasundaram, K. Ramachandran and C. Sanjeeviraja 141

X-Ray Studies on PbS

M. Ambika and R. Saravanan 153

A Theoretical Estimation of the Charge Density Distribution in the Diluted Magnetic Semiconductors of $\text{Si}_{1-x}\text{M}_x$ and $\text{Ge}_{1-x}\text{M}_x$ ($\text{M} = \text{V}, \text{Mn}, \text{Co}$)

R.A.J.R. Sheeba, R. Saravanan and L.J. Berchmans 167

Automation of Photoacoustic Spectrometer for NDE Applications

P. Palanichamy, P. Kalyanasundaram, K. Jeyadheepan, M. Jeyaprakasam, K. Ramachandran and C. Sanjeeviraja 185

Template Synthesis, Spectral and Redox Behavior of Metal Complexes of Macrocyclic Tetraaza Schiff Base and their Interaction with Herring Sperm DNA

M. Malarvizhi, G. Subramanian and P. Athappan 205

Copper (II) Complexes of Knoevenagel Condensate β -Diketiminates as Models for Blue Copper and their Interaction with DNA

M. Malarvizhi and P. Athappan 231

Removal of Methylene Blue by Adsorption Process - A Comparative Study

A. Xavier, J. Gandhi Rajan, D. Usha and R. Sathya 245

Synthesis and Characterization of Schiff Base with Bivalence Transition Metal Complexes Namely Cu, Co, Ni, Mn and Fe

A. Xavier, R. Sathya, D. Usha and P.S. Harikrishnan 265

Synthesis and Characterization of Ligand and its Metal Complexes

A. Xavier, R. Sathya, D. Usha and P.S. Harikrishnan 273

Phenol and Formaldehyde Cationic Resin Blended with Sulphonated Aegle Marmelos Charcoal

R. Sayee Kannan, S. Siva, K. Kavitha and N. Kannan 281