

## List of Ph.D. Graduates

### 1971

1. K.S. Raman  
(K.I. Vasu)  
Resistometric studies of solute vacancy interactions and clustering kinetics in an FCC matrix (Al-Zn alloy with Ag, Co, Dy, Li, Nb, Pt, Sn, Y or Yb)
2. E.S. Dwarakadasa  
(K.I. Vasu)  
Resistometric studies of clustering and solute vacancy interactions in some aluminium alloys
3. D.H. Sastry  
(K.I. Vasu)  
Thermally activated deformation in CPH metals and the effect of crystal structure on the mechanism of low temperature creep in metals
4. Y.V.R.K. Prasad  
(K.I. Vasu)  
Effect of stacking fault energy, quenched-in defects and solute atoms on the low temperature deformation mechanism in FCC metals
5. S. Seetharaman  
(K.P. Abraham)  
Thermodynamic properties of some binary metal oxide solid solutions

### 1972

6. Y.M. Faruq Marikar  
(K.I. Vasu)  
Electrometallurgy of the iron group metals and alloys: Studies in the fluoborate bath
7. Krishna Kant Prasad  
(K.P. Abraham)  
Thermodynamic properties of some binary metal oxide systems
8. K. Narasimha Murthy  
(K.I. Vasu)  
Resistometric studies of precipitation kinetics in aluminium-silver alloys (Al-0.2 to 0.3 Ag alloys, and Al-0.64Ag alloy with Nb, Si, Ge, Ti, Gd, Sn or Pb)

### 1974

9. V.V.V.N.S. Ramakrishna Rao  
(K.P. Abraham)  
Kinetic aspects of gas/solid reactions of metallurgical interest
10. Tarasankar Deb Roy  
(K.P. Abraham)  
Kinetic investigations on gas-solid reactions
11. Kishore  
(K.I. Vasu)

On the nature of clustering and strengthening in a quenched and aged aluminium 2% germanium alloy-resistometric, microscopic and low temperature deformation studies.

12. R. Chandrashekar  
(K.I. Vasu)  
Stress corrosion of aluminium 8% magnesium alloy (effect of nature of stress, heat treatment and trace additions of B and Be)

### **1975**

13. T.C. Kasiviswanathan  
(K.I. Vasu)  
Corrosion and related electrochemical studies on zirconium (in nitrate melts, nitrate fluoride melts and aqueous nitrate solutions)
14. H. Ravindranath Shetty  
(Y.V.R.K. Prasad and K.I. Vasu)  
Superplasticity and stress corrosion cracking behaviour of zinc- aluminium and copper-aluminium alloys (effect of mechanical, metallurgical and environmental factors)
15. V. Sivan  
(G.N.K. Iyengar)  
Kinetic studies on gas solid reactions of metallurgical interest

### **1976**

16. T. Hanumantha Rao  
(K.I. Vasu)  
Oxide-dispersed copper nickel composites and kinetics
17. Uppala Ratnam  
(K.P. Abraham and J.P. Hajra)  
Studies on electroslog melting of quality steels and nickel base alloys
18. Placid Rodriguez  
(K.I. Vasu and M.K. Asundi, BARC )  
Low temperature deformation in hard HCP metals
19. N.S. Srinivasan  
(A.K. Lahiri)  
Studies on the reduction of iron oxides by carbon
20. V.S. Raghunathan  
(K.I. Vasu & B.B. Sharma)  
Diffusion in transition metals alloys

### **1977**

21. A.K. Bhutani  
(K.P. Abraham)  
Studies on electroslog remelting
22. Ch. Virupaksha Shastry  
(D.H. Sastry and K.I. Vasu)

Deformation characteristics of BCC metals

23. E. Elaya Perumal  
(K.I. Vasu and J. Balachandra)  
Stress corrosion cracking of Zr & zircaloy 2 in  $\text{CH}_3\text{OH}-(\text{HCL}, \text{I}_2)$  solutions
  24. S. Raghavan  
(G.N.K. Iyengar and K.P. Abraham)  
Thermodynamic investigations on binary metal oxide solutions by the solid electrolyte techniques
  25. C.R. Vijayasimha  
(K.I. Vasu and V.G. Kubair, CH )  
Heat transfer of liquid metals
- 1979**
26. D. Banerjee  
(K.I. Vasu)  
Phase equilibria and transformations : A microstructural characteri-sation of some Ti-Al-Mo alloys containing the  $\gamma$  - phase
  27. N. Jayaraman  
(M. Mohan Rao)  
Studies on maraging and reversion to austenite in Fe-12Ni-4Mn maraging steel
  28. A.H. Yegneswaran  
(K.S. Raman)  
Effect of crystallographic texture and grain size on the mechanical properties of warm worked Cd, Cd-1.5Zn and Cd-1Ag alloys
  29. S. Ilangovan  
(K.I. Vasu)  
Galvanic cementation winning of copper from chalcopyrite leached with ferric chloride solution
  30. Deonath  
(P.K. Rohatgi)  
Preparation and properties of cast aluminium alloy-mica particle composite
  31. N.K. Jain  
(Y.V.R.K. Prasad and K.P. Abraham)  
Hot working and deformation mechanism in electroslag refined materials (En 36A steel and RR 58 aluminium alloy)

**1980**

32. H.V. Sudhaker Nayak  
(Y.V.R.K. Prasad and K.I. Vasu)  
Texture-dependent stress corrosion failure of commercial titanium and Ti-6Al-4V alloy sheets in methanol bromine solution
33. J. Subrahmanyam  
(K.P. Abraham and A.K. Lahiri)  
Chemical vapour deposition of titanium carbide from titanium tetrachloride-toluene-hydrogen gas mixtures

34. Mohan G. Hebsur  
(Y.V.R.K. Prasad and K.P. Abraham)  
Effect of electroslag refining on hot workability, fracture toughness and fatigue crack propagation in EN24 and EN52 steels

#### **1981**

35. M.V. Bhat  
(K.I. Vasu)  
Stress-corrosion characteristics of Al-5%Zn and Al-5%Cu alloys and effect of Ti addition
36. Srinivas D Sastry  
(Y.V.R.K. Prasad, K.P. Abraham and P.K. Rohatgi)  
Influence of microstructure on strengthening and fracture mechanisms in electroslag refined Fe-12Cr-6Al ferritic stainless steel
37. Anand Jagu Katkar  
(K.I. Vasu)  
Corrosion behaviour of nickel silver and cupro-nickel in sea water
38. G. Sambasiva Rao  
(Y.V.R.K. Prasad)  
Influence of texture on the grain boundary strengthening and fracture in hot rolled Mg and Mg alloys

#### **1982**

39. Sardari Lal Mannan  
(Y.V.R.K. Prasad, K.I. Vasu and P. Rodriguez, IGCAR)  
Influence of grain size on the flow and fracture in AISI Type 316 stainless steel at elevated temperature.
40. G.S. Murthy  
(D.H. Sastry)  
Impression creep and the mechanism of high temperature deformation in zinc and cadmium
41. P.K. Biswas  
(E.S. Dwarakadasa and P.K. Rohatgi)  
Influence of internal chills on the structure and properties of aluminium alloy castings
42. A.W.S. Kurny  
(R.M. Mallya and M. Mohan Rao)  
Studies on ion nitriding

#### **1983**

43. A.M. Sriram Murthy  
(Y.V.R.K. Prasad and S.N. Tewari, DMRL )  
Influence of microstructure on the deformation and fracture behaviour of a nickel-33% molybdenum-5.7% aluminium in situ composite
44. Ram Chandra Prasad

(K.I.Vasu and E.S.Dwarakadasa)  
A fracture mechanics study of corrosion fatigue: Influence of microstructure on crack propagation rates in heat treated 7075Al clad aluminium alloy

45. M.Venkatraman  
(J.P.Hajra)  
Thermodynamics of Ni-Mn and Ni-Mn-Co alloys
46. P.C.Angelo  
(M.Mohan Rao and D.P.Lahiri, DMRL )  
Ternary diffusion studies in iron-cobalt-vanadium alloys

#### **1984**

47. R.K.Dayal  
(Y.V.R.K.Prasad, M.V.Bhat and J.B.Gnanamurthy, IGCAR )  
Effect of texture, grainsize and carbide precipitation on the crevice corrosion behaviour of austenitic stainless steels in aqueous medium: Metallurgical, chemical and electrochemical aspects
48. J.M.Juneja  
(K.P.Abraham and G.N.K.Iyengar)  
Thermodynamic investigations on some alloy systems of interest in metallothermic reductions by vapour pressure: Measurements and thermogravimetry
49. R.Sundaresan  
(K.I.Vasu, R.M.Mallya and A. C. Raghuram, NAL)  
Kinetics sintering in beta titanium systems: A model for enhanced diffusional mass flow by transformation induced dislocations during isothermal sintering of titanium and Ti-6Al-4V alloy
50. Prabhakar Sastri  
(A.K.Lahiri)  
Central atoms: Models for silicate and aluminate melts

#### **1985**

51. Saradindukumar Ray  
(D.H.Sastry and P.Rodriguez, IGCAR )  
Some aspects of the deformation characteristics of austenitic stainless steel 316 and high purity aluminium in tension, creep and stress relaxation
52. E.S.Bhagiradha Rao  
(R.M.Mallya, D.H.Sastry and V.S.Arunachalam, DMRL )  
Studies on mechanical alloying of Ni-20Cr-2ThO<sub>2</sub>

#### **1986**

53. S.Ramesh Babu  
(A.K.Lahiri and M.Mohan Rao)  
Studies on drop formation at conical and capillary tips
54. T.S.Sampath Kumar  
(R.M.Mallya and M.S.Hegde, SSCU )

Electron spectroscopic studies of surface segregation and oxidation of Cu and Ni based alloys and low temperature preparation and characterisation of intermetallics based on the system Fe-W-Mo

### 1987

55. I.Sambasiva Rao  
(Y.V.R.K.Prasad and E.S.Dwarakadasa)  
Constitutive flow behaviour and processing maps for magnesium and magnesium -1.5 zirconium
56. T.Asokan  
(G.N.K. Iyengar and G.R.Nagabhushana, HVE )  
Developmental studies on ZnO based composites for surge arrester applications
57. V.S.Raja  
(S.Ranganathan and Kishore)  
Thermal and chemical stabilities of three Fe-Ni base metallic glasses

### 1988

58. M.N.Raghavendra Rao  
(Y.V.R.K.Prasad Kishore, B.Dattaguru, AE and R.Peravali, ADE )  
Non-destructive evaluation of crack like defects and delaminations in GFRP composites application of acousto-ultrasonics and acoustic emission techniques
59. Asok Kumar Ray  
(E.S.Dwarakadasa and K.S.Raman )  
Studies of fatigue crack growth and fracture toughness in LA55 HSLA steel butt welds
60. N.Thangaraj  
(S.Ranganathan and E.S.Raja Gopal, Phy )  
Electron microscopy of quasicrystalline phases in aluminium-manganese and aluminium-palladium alloys
61. S.Ranganathan  
(J.P.Hajra )  
Thermodynamic studies on Cr-Mn, Cr-Mn-O and Cr-Mn-Co systems using an isopiestic technique
62. R.Akila  
(K.T.Jacob and A.K.Shukla, SSCU)  
Solid state galvanic sensors - Some studies on concepts and materials
63. K.S.Ravichandran  
(E.S.Dwarakadasa and Kishore)  
Microstructural aspects of near threshold fatigue crack growth and crack closure in HSLA steel and Ti-6Al-4V alloy

### 1989

64. Gouthama  
(Kishore)

Electron microscopic study of precipitation in an Al-Ge alloy analysis using near-CSL/DSC lattice model

65. K.Rajendra Udupa  
(G.N.K.Iyengar and D.H.Sastry)  
Effect of electroslag re fining on composition, structure and mechanical properties of En 24 and MDN 250 steels
66. A.Rajadurai  
(E.S.Dwarakadasa)  
Effect of 1 wt% Al/Si addition on the phase transformation, tensile and fracture behaviour of Cu- 9Ni-6Sn spinodal alloy

## 1990

67. N.K.Mukhopadhyaya  
(S.Ranganathan and K.Chattopadhyay )  
Some aspects of synthesis, structure and stability of quasicrystals
68. R.L.Saha  
(K.T.Jacob and P.Rama Rao, DMRL)  
Casting technology for titanium and titanium alloys characterisation of metal mould reactions in zircon sand and investment moulds and evaluation of a hypo-eutectic cast Ti-Si alloy
69. V.Sampath  
(E.S.Dwarakadasa)  
Electroslag refining and structure property correlation studies of the aluminium alloy IS:7670
70. S.Srikanth  
(K.T.Jacob)  
Thermodynamics of alloys: Theory, experiment and application
71. D.Sundararaman  
(S.Ranganathan and V.S.Raghunathan, IGCAR)  
Phase transformation in Ti-N and Ti-Fe-N alloys and superconductivity
72. M.K.Yelloji Rao  
(K.A.Natarajan)  
Electrochemical aspects of interactions among ball materials and minerals with reference to grinding and flotation of complex copper lead-zinc sulphides
73. Baldev Raj  
(S.Ranganathan, P.Rodriguez, IGCAR and A.K.Rao, AE )  
Acoustic emission for characterising, deformation and fracture during tensile testing in austenitic stainless steels
74. G.M. Kale  
(K.T.Jacob and G.N.K.Iyengar)  
Thermodynamic studies on selected ceramic oxide systems
75. V. Thiruvengataswamy  
(S. Ranganathan and K. Chattopadhyay)  
Non equilibrium solidification of pure metals (Al, Cu, Ni), bismuth, eutectic Al-Ge and Al-Cu and peritectic Al-Cr alloys

76. T.A. Bhaskaran  
(S. Ranganathan and R.V. Krishnan, NAL)  
Microstructural studies of rapidly solidified titanium eutectoid alloys

**1991**

77. R. Seshadri  
(R.M. Mallya and R.V. Krishnan, NAL)  
Centrifugal splat quenching and secondary atomization of titanium alloys (Ti-6Al-4V & Ti-6.5Al-3.3Mo-1.6Zr-0.3S)

**1992**

78. K. Raviprasad  
(K. Chattopadhyay)  
Microstructural evolution during ordering and magnetic properties of rapidly solidified Fe-Si alloys
79. M. Valsan  
(D.H. Sastry and S.L. Mannan, IGCAR)  
Some aspects of deformation and fracture in low cycle fatigue of a nimonic PE 16 superalloy
80. N. Ravichandran  
(Y.V.R.K. Prasad)  
Effect of impurities and hard particles on the characteristics of dynamic recrystallization during hot working of aluminium and copper –A study using processing maps
81. B.S. Murthy  
(S. Ranganathan and M. Mohan Rao)  
Study of amorphous phase formation by mechanical alloying in Ti based systems

**1993**

82. D. Padmavardhani  
(Y.V.R.K. Prasad)  
Influence of the constitutive behaviour of  $\alpha$  and  $\beta$  phases on the mechanisms of hot working in  $\alpha$  -  $\beta$  brasses and nickel silvers: A study using processing maps
83. J.K. Chakravarty  
(Y.V.R.K. Prasad, M.K.Asundi and S. Banerjee, BARC)  
Optimization of hot workability and control of microstructure in zirconium alloys using processing maps : Zirconium, Zircalloy-2, Zr-2.5Nb and Zr-2.5 Nb-0.5 Cu

**1994**

84. N. Srinivasan  
(Y.V.R.K. Prasad)  
Influence of impurities and alloying additions on the processing maps for hot working of nickel and nickel-base superalloys Ni, Ni-C, Ni-C-S, Ni-20Cr, IN 600, IN 718, Nimonic-75, 80A and 90



85. Alok Singh  
(S. Ranganathan)  
Decagonal quasicrystals and related phases in aluminium- transition metal alloys : Al-Mn-Fe, Ni, Cu, Zn
86. Ramasis Goswami  
(K. Chattopadhyay)  
Microstructures, solidification, melting and transport properties of nanodispersoids in immiscible alloy systems
87. Tom Mathews  
(K.T. Jacob and J.P. Hajra)  
Phase equilibria and thermodynamic studies on selected ceramic oxide systems
88. S. Murali  
(K.S. Raman and K.S.S. Murthy, ME )  
Influence of trace additions on the microstructure, mechanical properties and age hardening characteristics of Al-7Si-0.3 Mg cast alloy with iron impurity

## **1995**

89. D.K. Bhattacharya  
(E.S. Dwarakadasa and Placid Rodriguez, IGCAR )  
Characterization of microstructures in steels by magnetic and ultrasonic techniques
90. T.V.L. Narasimha Rao  
(D.H. Sastry and M.V. Bhat)  
Aqueous corrosion and a fracture mechanics study of stress corrosion cracking in magnesium alloys (Mg-Li-Al; Mg-Li-Al-X and Mg-Zn-Mn)
91. T. Chandrasekaran  
(Kishore)  
Kinetics of size reduction and associated wear of grinding media - study using a ball mill
92. D.N. Drakshayani  
(R.M. Mallya)  
Reactivity of Solids : Effect of dopants on the low temperature hydrogen reduction of ferric oxides and metastable spinels
93. O. Sivakesavam  
(Y.V.R.K. Prasad, P. Rama Rao and G.G. Saha, DMRL )  
Effect of processing history and initial microstructure on the hot working behaviour of magnesium, Mg-Zn-Mn, Mg-Li-Al and Mg-Li-Al-Zr Alloys : Characterisation with processing maps.
94. K. Padmanabhan  
(Kishore)  
Failure analysis of glass, carbon or kevlar fibre reinforced epoxy based composites in static loading conditions.
95. K. Asokkumar  
(K.S.Raman and M.N.Chandrasekharaiah, WRI )  
Studies on induction pressure welded steel joints

96. R. Nagarajan  
(K.Chattopadhyay and S. Ranganathan)  
Metastable and nanostructured titanium-nickel and titanium- nickel-aluminium alloys

**1996**

97. Bhaskar Majumdar  
(K. Chattopadhyay and J.P. Hajra)  
Thermodynamics and microstructural development in immiscible systems processed through different routes
98. Dharmendra Gupta  
(A.K. Lahiri)  
Water model study of fluid flow and slag entrainment in a continuous slab casting mold
99. S. Manjini  
(S. Ranganathan and G.N.K. Iyengar)  
Studies on high Tc  $\text{Yba}_2\text{Cu}_3\text{O}_{6+x}$  : Stability, silver addition and thin films
100. K.M. Satyalakshmi  
(R.M. Mallya and M.S. Hegde, SSCU )  
Studies on superconducting, metallic and ferroelectric oxide thin films and their heterostructures grown by pulsed laser
101. Rajan Ambat  
(E.S. Dwarakadasa)  
Aqueous corrosion and high temperature oxidation studies of aluminium-lithium alloys
102. A.K. Srivastava  
(S. Ranganathan)  
Studies on rapidly solidified Al-Mn-Cr-Si and Al-Fe-V-Si alloy : Processing - Microstructure correlation
103. N.V. Ravi Kumar  
(E.S. Dwarakadasa)  
Characterization of indigeneous Al-Zn-Mg.SiCp metal matrix composites
104. T.R.G. Kutty  
(D.H. Sastry and C. Ganguly, BARC )  
Microstructure, hot hardness and indentation creep of Al-U & Al-U-Zr alloys
105. Bhaskar Dutta  
(M.K. Surappa)  
Studies on particle distribution and matrix microstructure evolution during processing of Al-Cu-SiCp composites

**1997**

106. K.V. Sudhakar  
(E.S. Dwarakadasa)  
Crack growth, fracture and fracture toughness behaviour of a dual phase martensite steel

107. K.S.N. Murthy  
(E.S. Dwarakadasa)  
Influence of metal cations ( $\text{Cu}^{2+}$ ,  $\text{Al}^{3+}$  and  $\text{Li}^+$ ) on the aqueous corrosion of an Al-Li alloy
108. Dinesh Srivastava  
(S. Ranganathan and Srikumar Banerjee, BARC )  
 $\beta$  Phase transformations in zirconium base alloys
109. Sukanya Mukhopadhyay  
(K.T. Jacob and A.K. Shukla, SSCU )  
Studies on phase relations, thermodynamics and electrochemistry of some ceramic oxide systems
110. N.N. Viswanathan  
(A.K. Lahiri and M.N. Srinivasan, ME )  
Modelling of Cupola - Design and operation for minimum fuel rate and emission levels

### **1998**

111. N. Nagendra  
(Vikram Jayaram)  
Processing, microstructure and fracture characteristics of high volume fraction ( $\text{Al}_2\text{O}_3/\text{Al-AlN}$ ) matrix composites
112. P.K. Sagar (ER)  
(Y.V.R.K. Prasad & D. Banerjee)  
High temperature deformation processing of  $\alpha_2/\text{O}$  titanium aluminide alloys using processing maps
113. T. Seshacharyulu  
(Y.V.R.K. Prasad)  
Influence of oxygen content, crystallographic texture and preform microstructure on the processing maps for hot working of titanium and Ti-6Al-4V.
114. N.B.R. Mohan Rao (QIP)  
(M.K. Surappa)  
Studies on precipitation, recrystallization and deformation behaviour of ceramic particle reinforced Al-10% Mg alloy composites
115. R. Jayaganthan  
(J.P. Hajra)  
Experimental investigations and thermodynamic modelling of selected III-V semiconductor alloys
116. N. Ravi Shankar  
(K. Chattopadhyay)  
Mechanisms of phase formation and magnetic properties of nano-crystalline materials
117. G. Chandra Mohan (QIP)  
(E.S. Dwarakadasa)  
Extrusion processing of Al-Li alloy (1441)

118. Namita Deo  
(K.A. Natarajan)  
Studies on biobeneficiation and bioremediation using *Bacillus polymyxa* with reference to iron ore and bauxite processing
119. R.S. Sundar  
(D.H. Sastry)  
Processing and creep studies on Fe<sub>3</sub>Al based alloys
120. Yu Fuxiao (FN)  
(E.S. Dwarakadasa and S. Ranganathan)  
Development of liquid phase co-spray forming and its application to Al-Si-Pb alloys
121. Azharul Haq (ER)  
(E.S. Dwarakadasa and S. Banerjee, BARC)  
Near threshold fatigue crack growth and fracture toughness studies in zirconium, Zr-15% Ti and zircaloy-2
122. Tania Bhatia  
(K. Chattopadhyay and Vikram Jayaram)  
Phase evolution in MgO-MgAl<sub>2</sub>O<sub>4</sub> under non-equilibrium processing conditions

## **1999**

123. S. Prakash Narayan  
(Vikram Jayaram and Kunal Basu, RRL, Bhopal)  
The effect of strain rate and temperature on the development of magnetic properties in nanocrystalline Nd-Fe-B alloy
124. Rajendra Kumar Rath  
(S. Subramanian)  
Polysaccharide-based investigations into the surface chemistry of some sulphide and hydrophobic minerals and processing of a complex sulphide ore
125. Kinkar Laha (ER)  
(D.H. Sastry and S.L. Mannan, IGCAR)  
Tensile and creep behaviour of similar and dissimilar weld joints of Cr-Mo steels
126. M. Divakar  
(J.P. Hajra and K.T. Jacob)  
Thermodynamics of surfaces and adsorption in dilute iron based systems
127. Dheepa Srinivasan  
(K. Chattopadhyay)  
Phase evolution, thermal stability and hardness of melt spun nanocrystalline Al-Zr based alloys
128. S. Sundararajan  
(E.S. Dwarakadasa and R. Mahadevan, IPL)  
Study of the properties and particle / matrix interface in Al-12Si-10% SiC<sub>p</sub> composite

## **2000**

129. B. Srinivasa Rao  
(Vikram Jayaram)  
Pressureless infiltration of Al-Mg based alloys into Al<sub>2</sub>O<sub>3</sub> preforms
130. R. Sankarasubramanian  
(T.A. Abinandanan)  
Symmetry – breaking transitions in equilibrium shapes of coherent precipitates

## 2001

131. P. Shankar  
(S. Ranganathan and Baldev Raj, IGCAR)  
Thermal aging effects in nuclear grade 316LN austenitic stainless steels
132. Prajina Bhattacharya  
(K. Chattopadhyay)  
Synthesis, morphology and phase transformation of the metallic embedded nanoparticles and multilayers
133. Anandh Subramaniam  
(S. Ranganathan)  
Metastable phases in Mg-based alloys
134. Kirity Bhusan Khan  
(M.K. Surappa and C. Ganguly, BARC)  
Processing and characterization of B<sub>4</sub>C particle reinforced Al-5% Mg alloy matrix composites
135. V.S. Srinivasan  
(D.H. Sastry and K. Bhanu Sankara Rao, IGCAR)  
Strain controlled low cycle fatigue and creep-fatigue interaction behaviour of a type 316L(N) stainless steel
136. R. Venkatesan  
(E.S. Dwarakadasa and M. Ravindran, NIOI)  
Studies on corrosion of some structural materials in deep sea environment
137. Sandip Bysakh  
(K.C. Chattopadhyay and P.K. Das, I.P.C.)  
Pulsed laser ablation deposition of intermetallic thin films: A study of evolution of metastable phases and ultrafine microstructures
138. Ashutosh Suresh Gandhi  
(Vikram Jayaram)  
The processing of bulk metastable amorphous and nanocrystalline ZrO<sub>2</sub> – Al<sub>2</sub>O<sub>3</sub> ceramics by pressure consolidation of amorphous powders
139. R. Divakar  
(S. Ranganathan and V.S. Raghunathan, IGCAR)  
Interfaces in quasicrystalline and nanocrystalline materials: Quasicrystalline, Al-cu-Fe and Al-Pd-Mn alloys and nanocrystalline titanium, palladium and thorium dioxide

## 2002

140. Viji Varghese

(K. Chattopadhyay)  
A study of the role of mechanical energy on the kinetics of reactions and transformations in the solid state

141. V.V. Balasubrahmanyam (QIP)  
(Y.V.R.K. Prasad and A.H. Chokshi)  
Hot deformation mechanisms and microstructural characterization in ( $\alpha+\beta$ ) and  $\beta$  titanium alloys ( Ti-5.5Al-1Fe, Ti-10V-2Fe-3Al, Ti-10V-4.5Fe-1.5Al and Ti-6.8Mo-4.5Fe-1.5Al )
142. D. Santhiya  
(K.A. Natarajan and S. Subramanian)  
Investigation into the surface chemistry of galera, sphalerite and sulphur minerals using *Thiobacillus thiooxidans* and *Bacillus polymyxa*
143. G.S. Avadhani (SR)  
(Y.V.R.K. Prasad and A.H. Chokshi)  
Hot deformation mechanisms and microstructural evolution during upset forging of  $\gamma$ -Fe, Fe, Fe-5Ni, Fe-5Co & Fe-5Mo alloys and maraging steel
144. Bijoy Sri Khan (ER)  
(Kishore and B. Viswanath)  
Buffer strips in carbon-epoxy system and their influence on the mechanical behaviour and macroscopic features in dry and wet state
145. Satyabodh M. Kulkarni (QIP)  
(Kishore)  
Processing, microstructural and mechanical behavioural aspects of Fly ash-epoxy composites
146. Gandham Phani Kumar  
(K. Chattopadhyay and P. Dutta (ME))  
Experimental and Computational Studies of Laser Processing of Dissimilar Metals
147. Abha Kumari  
(K.A. Natarajan)  
Electrochemical and Microbiological Processing of Ocean Manganese Nodules to Recover Valuable Metals

## **2003**

148. Lakshmi Narayan Satapathy  
(A.H. Chokshi and B.K. Chandrasekhar.(Orgn))  
Role of Second Phase in the Microstructural Development and Creep Deformation in Alumina based Composites
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