

**PUBLICATIONS OF Prof. B.S. MURTY****Published in National and International Journals**

1. B.S. Murty, M. Mohan Rao and S. Ranganathan, Synthesis of amorphous phase in Ti-Ni-Cu system by mechanical alloying, *Scripta Metall. Mater.*, 24 (1990) 1819-1824.
2. B.S. Murty, S. Ranganathan and M. Mohan Rao, Solid state amorphization in binary Ti-Ni, Ti-Cu and ternary Ti-Ni-Cu system by mechanical alloying, *Mater. Sci. Eng., A*, 149 (1992) 231-240.
3. B.S. Murty, M.D. Naik, M. Mohan Rao and S. Ranganathan, Glass forming composition range in the Al-Ti system by mechanical alloying, *Materials Forum*, 16 (1992) 19-26.
4. B.S. Murty, M. Mohan Rao and S. Ranganathan, Nanocrystalline phase formation and extension of solid solubility by mechanical alloying in Ti based systems, *Nanostructured Mater.*, 3 (1993) 459-467.
5. A. Goyal, B.S. Murty and S. Ranganathan, Crystallization studies on amorphous Al-Y-Ni and Al-Y-Cu alloys, *J. Mater. Sci.*, 28 (1993) 6091-6095.
6. B.S. Murty, Mechanical alloying-A novel synthesis route for amorphous phases, *Bull. Mater. Sci.*, 16 (1993) 1-17.
7. R. Nagarajan, B.S. Murty and S. Ranganathan, Nanocrystals in Ti based systems by mechanical alloying, *Chinese J. Mater. Res.*, (1993) 215-220.
8. K.V. Sreenivasa Prasad, A. Arjuna Rao, R.S. Dutta, B.S. Murty and M. Chakraborty, Effect of hot rolling on the grain refining efficiency of Al-Ti and Al-Ti-B master alloys, *IIF Trans.*, 62 (1994) 321-326.
9. A. Arjuna Rao, K.V.S. Prasad, B.S. Murty and M. Chakraborty, An Al-Ti-B master alloy for grain refinement of Aluminium and its alloys, *Ind. Foundry J.*, 40 (1994) 7-15.
10. H. Behera, B.S. Murty and M. Chakraborty, Metal mould reactions in casting high Cr-Ni heat resistant stainless steel with CO<sub>2</sub> sands, *IIF Trans.*, 61 (1994) 207-216.
11. S.K. Shee, B.S. Murty, M. Chakraborty and T.B. Ghosh, X-ray photoelectron spectroscopic studies of thick protective tin overlayer on copper, *Trans. Metal Finishers Association*, 3 (1994) 49-54.
12. B.S. Murty, M. Mohan Rao and S. Ranganathan, Milling maps and amorphization during mechanical alloying, *Acta Metall. Mater.*, 43 (1995) 2443-2450.
13. B.S. Murty, M. Mohan Rao and S. Ranganathan, Differences in the glass-forming ability of rapidly solidified and mechanically alloyed Ti-Ni-Cu alloys, *Mater. Sci. Eng., A* 196 (1995) 237-241.
14. B.S. Murty, M. Mohan Rao and S. Ranganathan, Thermodynamics of glass formation in pure metals, *Calphad*, 19 (1995) 297-304.
15. A. Arjuna Rao, B.S. Murty and M. Chakraborty, Influence of chromium and impurities on the grain-refining behavior of Aluminum, *Metall. Mater. Trans. A*, 27A (1996) 791-800.
16. S.K. Pabi, J. Joardar and B.S. Murty, Formation of nanocrystalline phases in the Cu-Zn system during mechanical alloying, *J. Mater. Sci.*, 31 (1996) 3207-3211.
17. B.S. Murty, J. Joardar and S.K. Pabi, Influence of Fe and Cr on the disordering behavior of mechanically alloyed NiAl, *Nano Structured Mater.*, 7 (1996) 691-697.
18. S.K. Pabi and B.S. Murty, Mechanism of mechanical alloying in Ni-Al and Cu-Zn systems, *Mater. Sci. Eng., A*, 214 (1996) 146-152.
19. K.V.S. Prasad, B.S. Murty, P. Pramanik, P.G. Mukunda and M. Chakraborty, Reaction of fluoride salts with aluminium, *Mater. Sci. Tech.*, 12 (1996) 766-770.
20. A. Arjuna Rao, B.S. Murty and M. Chakraborty, Response of an Al-Cr alloy towards grain refinement by Al-5Ti-1B master alloy, *Int. J. Cast Metals Res.*, 9 (1996) 125-132.
21. B.S. Murty, J. Joardar and S.K. Pabi, Effect of non-stoichiometry on the ordering behavior of nanocrystalline NiAl produced by mechanical alloying, *J. Mater. Sci. Lett.*, 15 (1996) 2171-2172.
22. B.S. Murty, K.H.S. Singh and S.K. Pabi, Synthesis of nanocrystalline NiAl over a wide composition range by mechanical alloying, *Bull. Mater. Sci.*, 19 (1996) 565-571.
23. S.K. Pabi and B.S. Murty, Synthesis of nanocrystalline alloys and intermetallics by mechanical alloying, *Bull. Mater. Sci.*, 19 (1996) 939-956.
24. S.K. Pabi, J. Joardar, I. Manna and B.S. Murty, Nanocrystalline phases in Cu-Ni, Cu-Zn and Ni-Al systems by mechanical alloying, *Nano Structured Mater.*, 9 (1997) 149-152.
25. M. Wagener, B.S. Murty and B. Gunther, Preparation of metal nanosuspensions by high pressure DC-sputtering on running liquids, *Mater. Res. Symp. Proc.*, 457 (1997) 149-154.
26. A. Arjuna Rao, B.S. Murty and M. Chakraborty, Role of zirconium and impurities in the grain refinement of aluminium with Al-Ti-B, *Mater. Sci. Tech.*, 13 (1997) 769-777.
27. B.S. Murty and S. Ranganathan, Novel materials synthesis by mechanical alloying/milling, *Int. Mater. Rev.*, 43 (1998) 101-141.
28. M. Chakraborty, B.S. Murty and K.V.S. Prasad, Development of fast acting and long-lasting grain refiner (Al-5Ti-1B) for aluminium and its alloys, *IIF Trans.*, (1998) 100-114.

29. B.S. Murty, S.A. Kori, K. Venkateswarlu, R.R. Bhat and M. Chakraborty, Manufacture of Al-Ti-B master alloys by the reaction of complex halide salts with molten aluminium, *J. Mater. Process. Tech.*, 89-90 (1999) 152-158.
30. S.A. Kori, B.S. Murty and M. Chakraborty, Influence of silicon and magnesium on the grain refinement in aluminium alloys, *Mater. Sci. Tech.*, 15 (1999) 986-992.
31. S.A. Kori, B.S. Murty and M. Chakraborty, Grain refinement of Al-Si alloys, *Ind. Foundry J.*, 45 (1999) 7-15.
32. S.K. Pabi, I. Manna and B.S. Murty, Alloying behavior in nanocrystalline materials during mechanical alloying, *Bull. Mater. Sci.*, 22 (1999) 321-327.
33. S.A. Kori, B.S. Murty and M. Chakraborty, Development of an efficient grain refiner for Al-7Si alloy, *Mater. Sci. Eng., A*, 280 (2000) 58-61.
34. B.S. Murty, D.H. Ping, K. Hono and A. Inoue, Direct evidence for oxygen stabilization of icosahedral phase during crystallization of  $Zr_{65}Cu_{27.5}Al_{7.5}$  metallic glass, *Appl. Phys. Lett.*, 76 (2000) 55-57.
35. B.S. Murty S.K. Thakur and B.K. Dhindaw, On the infiltration behavior of Al, Al-Li and Mg melts through  $SiC_p$  bed, *Metall. Mater. Trans. A*, 31A (2000) 319-325.
36. S.A. Kori, B.S. Murty and M. Chakraborty, Development of an efficient grain refiner for Al-7Si alloy and its modification with strontium, *Mater. Sci. Eng., A*, 283 (2000) 94-104.
37. M.K. Datta, S.K. Pabi and B.S. Murty, Thermal stability of nanocrystalline Ni silicides synthesized by mechanical alloying, *Mater. Sci. Eng., A*, 284 (2000) 219-225.
38. P. Barua, V. Srinivas and B.S. Murty, Synthesis of quasicrystalline phase by mechanical alloying of  $Al_{70}Cu_{20}Fe_{10}$ , *Philos. Mag. A*, 80 (2000) 1207-1217.
39. M.K. Dutta, S.K. Pabi and B.S. Murty, Face-centered-cubic to hexagonal-close-packed transformation in nanocrystalline Ni(Si) by mechanical alloying, *J. Mater. Res.*, 15 (2000) 1429-1432.
40. V. Srinivas, P. Barua and B.S. Murty, On icosahedral phase formation in mechanically alloyed  $Al_{70}Cu_{20}Fe_{10}$ , *Mater. Sci. Eng., A*, 294-296 (2000) 65-67.
41. M.K. Datta, S.K. Pabi and B.S. Murty, Phase fields of nickel silicides obtained by mechanical alloying in the nanocrystalline state, *J. Appl. Phys.*, 87 (2000) 8393-8400.
42. B.S. Murty, D.H. Ping, K. Hono and A. Inoue, Influence of oxygen on the crystallization behavior of  $Zr_{65}Cu_{27.5}Al_{7.5}$  and  $Zr_{66.7}Cu_{33.3}$  metallic glasses, *Acta Mater.*, 48 (2000) 3985-3996.
43. B.S. Murty, D.H. Ping, K. Hono and A. Inoue, Icosahedral phase formation by the primary crystallization of a Zr-Cu-Pd metallic glass, *Scripta Mater.*, 43 (2000) 103-107.
44. B.S. Murty, D.H. Ping and K. Hono, Nanoquasicrystallization of binary Zr-Pd metallic glasses, *Appl. Phys. Lett.*, 77 (2000) 1102-1104.
45. B.S. Murty and K. Hono, Formation of nanocrystalline particles in glassy matrix in melt-spun Mg-Cu-Y based alloys, *Mater. Trans., JIM*, 41 (2000)1538-1544.
46. S.A. Kori, T.P.D. Rajan, B.S. Murty and M. Chakraborty, Assessment of grain refinement and modification of eutectic Al-Si alloys by computer aided cooling curve analysis, *Ind. Foundry J.*, 46 (2000) 35-40.
47. M.K. Datta, S.K. Pabi and B.S. Murty, Thermal stability of nanocrystalline fcc and hcp Ni(Si) synthesized by mechanical alloying of  $Ni_{90}Si_{10}$ , *Philos. Mag. Lett.*, 81 (2001) 77-84.
48. K. Venkateswarlu, B.S. Murty and M. Chakraborty, Effect of hot rolling and heat treatment of Al-5Ti-1B master alloy on the grain refining efficiency of aluminium, *Mater. Sci. Eng., A*, 301 (2001) 180-186.
49. B.S. Murty, W.T. Kim, D.H. Kim and K. Hono, Nanocrystalline icosahedral phase formation in melt spun Ti-Zr-Ni alloys, *Mater. Trans.*, 42 (2001) 372-375.
50. B.S. Murty, D.H. Ping, K. Hono and A. Inoue, APFIM and TEM study of the oxygen behavior during crystallization of  $Zr_{65}Cu_{27.5}Al_{7.5}$  metallic glass, *Mater. Sci. Eng., A*, 304-306 (2001) 706-709.
51. P. Barua, B.S. Murty and V. Srinivas, Mechanical alloying of Al-Cu-Fe elemental powders, *Mater. Sci. Eng., A*, 304-306 (2001) 863-866.
52. B.S. Murty and K. Hono, Nanoquasicrystallization of Zr-based metallic glasses, *Mater. Sci. Eng., A*, 312 (2001) 253-261.
53. T. Takagi, T. Ohkubo, Y. Hirotsu, B.S. Murty, K. Hono and D. Shindo, Local structure of amorphous  $Zr_{70}Pd_{30}$  alloy studied by electron diffraction, *Appl. Phys. Lett.*, 79 (2001) 485-487.
54. Y.Q. Wu, D.H. Ping, B.S. Murty, H. Kanekiyo, S. Hirotsawa and K. Hono, Influence of heating rate on the microstructure and magnetic properties of  $Fe_3B/Nd_2Fe_{14}B$  nanocomposite magnets, *Scripta Mater.*, 45 (2001) 355-362.
55. B.S. Murty, D.H. Ping, M. Ohnuma and K. Hono, Nanoquasicrystalline phase formation in binary Zr-Pd and Zr-Pt alloys, *Acta Mater.*, 49 (2001) 3453-3462.
56. S.K. Pabi, J. Joardar and B.S. Murty, Mechanism and kinetics of alloying and nanostructure formation by mechanical methods, *PINSA-A*, 67 (2001) 1-30.
57. S.A. Kori, B.S. Murty and M. Chakraborty, Effect of Al-5Ti-1B grain refiner on some hypereutectic Al-Si alloys, *Ind. Foundry J.*, 47 (2001) 13-17.
58. S.A. Kori, B.S. Murty and M. Chakraborty, Preparation and characterization of Al-B and B-Rich Al-Ti-B Master alloys for the grain refinement of Al-7Si alloy, *AFS Trans.*, (2001) 267-286.

59. B.S. Murty, R. Maiti and M. Chakraborty, Development of in-situ Al-TiB<sub>2</sub> metal matrix composites, J. Metall. Mater. Sci., 43 (2001) 93-101.
60. B.S. Murty, S.A. Kori and M. Chakraborty, Grain refinement of aluminium and its alloys by heterogeneous nucleation and alloying, Int. Mater. Rev., 47 (2002) 3-29.
61. P. Barua, B.S. Murty, B.K. Mathur and V. Srinivas, Nanostructured icosahedral phase formation in Al<sub>70</sub>Cu<sub>20</sub>Fe<sub>10</sub> by mechanical alloying: comprehensive study, J. Appl. Phys., 91 (2002) 5353-5359.
62. P. Barua, B.S. Murty, B.K. Mathur and V. Srinivas, Icosahedral phase formation domain in Al-Cu-Fe system by mechanical alloying, J. Mater. Res., 17 (2002) 653-659.
63. N.K. Mukhopadhyay, G.V.S. Murthy, B.S. Murty and G.C. Weatherly, An investigation on the transformation of decagonal phase to B2 crystalline phase in Al-Cu-Co alloy during mechanical milling, J. Alloys Comp., 342 (2002) 38-41.
64. N.K. Mukhopadhyay, G.V.S. Murthy, B.S. Murty and G.C. Weatherly, Transformation of the decagonal quasicrystalline phase to B2 crystalline phase in Al-Cu-Co system by high-energy ball milling, Philos. Mag. Lett., 82 (2002) 383-392.
65. J. Joardar, S.K. Pabi, H.J. Fecht and B.S. Murty, Stability of nanocrystalline disordered NiAl synthesized by mechanical alloying, Philos. Mag. Lett., 82 (2002) 469-475.
66. M.Chakraborty, A.K. Prasada Rao, G.S. Vinod Kumar and B.S. Murty, Trends in melt treatment of aluminium and its alloys, Ind. Foundry J., 48 (2002) 19-27.
67. K. Venkateswarlu, P.K. De, S.K. Das, A.K. Ray, M. Chakraborty and B.S. Murty, Thermo-mechanical treatment of Al-5Ti-1B and Al-5Ti master alloy on its grain refining performance on Aluminium, J. Metall. Mater. Sci., 44 (2002) 109-125.
68. K. Venkateswarlu, S.K. Das, M. Chakraborty and B.S. Murty, Influence of thermo-mechanical treatment of Al-5Ti master alloy on its grain refining performance on aluminium, Mater. Sci. Eng., A, 351 (2003) 237-243.
69. K.L. Sahoo, S.K. Das and B.S. Murty, Formation of novel microstructures in conventionally cast Al-Fe-V-Si alloys, Mater. Sci. Eng., A, 355 (2003) 193-200.
70. K. Mondal, U.K. Chatterjee and B.S. Murty, Gibb's free energy for the crystallization of glass forming liquids, Appl. Phys. Lett., 83 (2003) 671-673.
71. B.S. Murty, D.H. Ping, K. Hono, H. Kimura and A. Inoue, Microstructure of rapidly solidified high strength Al<sub>94</sub>V<sub>4</sub>Fe<sub>2</sub> alloy, Mater. Trans., 44 (2003) 1993-1998.
72. B.S. Murty, M.K. Datta and S.K. Pabi, Structure and thermal stability of nanocrystalline Materials, Sadhana, 28 (2003) 23-45.
73. G.S. Vinod Kumar, B.S. Murty and M. Chakraborty, Poisoning and fading phenomena in the grain refinement of Al and Al-7Si alloy, Ind. Foundry J., 49 (2003) 23-25.
74. S.K.S. Parashar, R.N.P. Choudhary and B.S. Murty, Ferroelectric phase transition in Pb<sub>0.92</sub>Gd<sub>0.08</sub>(Zr<sub>0.53</sub>Ti<sub>0.47</sub>)<sub>0.93</sub>O<sub>3</sub>nanoceramic synthesized by high-energy ball milling, J. Appl. Phys., 94 (2003) 6091-6096.
75. S.S. Nayak and B.S. Murty, Synthesis of nanocrystalline L1<sub>2</sub>-Al<sub>3</sub>Ti and Al<sub>3</sub>Zr by mechanical alloying, Trans. Indian Inst. Met., 56 (2003) 457-463.
76. Sheela Singh, M.M. Godkhindi, R.V. Krishna Rao, B.S. Murty and P.G. Mukunda, Studies on reactive sintering behavior of milled nano Mo/Si<sub>3</sub>N<sub>4</sub> powder mixture, Rev. Adv. Mater. Sci., 5 (2003) 337-342.
77. S.A. Kori, V. Auradi, B.S. Murty and M. Chakraborty, Effect of Al-1Ti-3B, Sr and Mg on the grain refining and modification behaviour of LM-6 alloy, Ind. Foundry J., 49 (2003) 24-29.
78. Sheela Singh, M.M. Godkhindi, R.V. Krishnarao, B.S. Murty and P.G. Mukunda, Mechanically activated reaction synthesis of Si<sub>3</sub>N<sub>4</sub>-MoSi<sub>2</sub> *in-situ* composites, Trans. PMAI, 29 (2003) 74-80.
79. K. Venkateswarlu, M. Chakraborty and B.S. Murty, Influence of thermo-mechanical processing of Al-5Ti-1B master alloy on its grain refining efficiency, Mater. Sci. Eng., A, 364 (2004) 75-83.
80. K.L. Sahoo, S. Das and B.S. Murty, Formation of quasicrystalline related intermetallic compounds in conventionally cast Al-Fe-V-Si alloy, J. Non-Cryst. Sol., 334-335 (2004) 29-32.
81. B.S. Murty, P. Barua, V. Srinivas, F. Schurack and J. Eckert, Synthesis of (Al<sub>65</sub>Cu<sub>20</sub>Fe<sub>15</sub>)<sub>100-x</sub>Si<sub>x</sub> quasicrystalline alloys by mechanical alloying, J. Non-Cryst. Sol., 334-335 (2004) 44-47.
82. B.S. Murty, R.V. Koteswara Rao and N.K. Mukhopadhyay, Stability of quasicrystalline phase in Al-Cu-Fe, Al-Cu-Co and Al-Pd-Mn systems by high energy ball milling, J. Non-Cryst. Sol., 334-335 (2004) 48-51.
83. V. Srinivas, P. Barua, T.B. Ghosh and B.S. Murty, Oxidation behavior of Al-Cu-Fe nanoquasicrystal powders, J. Non-Cryst. Sol., 334-335 (2004) 540-543.
84. K. Mondal, U.K. Chatterjee and B.S. Murty, Corrosion and oxidation behavior of amorphous and nanoquasicrystalline phases in Zr<sub>70</sub>Pd<sub>30</sub> and Zr<sub>80</sub>Pt<sub>20</sub> alloys, J. Non-Cryst. Sol., 334-335 (2004) 544-547.
85. S.S. Nayak and B.S. Murty, Synthesis and stability of L1<sub>2</sub>-Al<sub>3</sub>Ti by mechanical alloying, Mater. Sci. Eng., A, 367 (2004) 218-224.

86. J. Joardar, S.K. Pabi and B.S. Murty, Estimation of entrapped powder temperature during mechanical alloying, *Scripta Mater.*, 50 (2004) 1199-1202.
87. S.K.S. Parashar, R.N.P. Choudhary and B.S. Murty, Electrical properties of Gd-doped PZT nanoceramic synthesized by high energy ball milling, *Mater. Sci. Eng., B*, 110 (2004) 58-63.
88. B.S. Murty and K. Hono, On the criteria for the formation of nanoquasicrystalline phase, *Appl. Phys. Lett.*, 84 (2004) 1674-1676.
89. A.K. Prasada Rao, Karabi Das, B.S. Murty and M. Chakraborty, Effect of grain refinement on wear properties of Al and Al-7Si alloy, *Wear*, 257 (2004) 148-153.
90. Sheela Singh, M.M. Godkhindi, R.V. Krishna Rao and B.S. Murty, Synthesis of  $\text{Si}_3\text{N}_4\text{-MoSi}_2$  in situ composite from mechanically activated (Mo+ $\text{Si}_3\text{N}_4$ ) powders, *J. Alloys Comp.*, 381 (2004) 254-257.
91. Sheela Singh, M.M. Godkhindi, R.V. Krishna Rao and B.S. Murty, Effect of mechanical activation on synthesis of ultrafine  $\text{Si}_3\text{N}_4\text{-MoSi}_2$  *in situ* composites, *Mater. Sci. Eng., A*, 382 (2004) 321-327.
92. A. Mandal, R. Maiti, M. Chakraborty and B.S. Murty, Effect of  $\text{TiB}_2$  on ageing response of Al-4Cu alloy, *Mater. Sci. Eng., A*, 386 (2004) 296-300.
93. N.K. Mukhopadhyay, Jatin Bhatt, A.K. Pramanick, B.S. Murty and P. Paufler, Synthesis of nanocrystalline/quasicrystalline  $\text{Mg}_{32}(\text{Al,Zn})_{49}$  by melt spinning and mechanical milling, *J. Mater. Sci.*, 39 (2004) 5155-5159.
94. S.N. Alam, S.K. Pabi and B. Murty, Development of tungsten-copper nanocomposites by mechanical alloying, *Microscopy and Analysis*, 18 (2004) 9-11.
95. K. Venkateswarlu, P.K. De, Ajoy Kumar Ray, M. Chakraborty and B.S. Murty, Effect of rolling on Al-5Ti binary master alloy (sponge route) and its grain refining performance in aluminium, *J. Metall. Mater. Sci.*, 46 (2004) 107-113.
96. G.S. Vinod Kumar, B.S. Murty and M. Chakraborty, A comparison of the grain refining efficiency of Al-5Ti-0.3C with other grain refiner in Al and Al-7Si alloy, *Ind. Foundry J.*, 50 (2004), 29-33.
97. N.S. Reddy, A.K. Prasada Rao, M. Chakraborty and B.S. Murty, Prediction of grain size of Al-7Si alloy by neural networks, *Mater. Sci. Eng., A*, 391 (2005) 131-140.
98. S.A. Kori, V. Auradi, B.S. Murty and M. Chakraborty, Poisoning and fading mechanism of grain refinement in Al-7Si alloy, *Mater. Forum*, 29 (2005) 387-393.
99. T. Venugopal, K. Prasad Rao and B.S. Murty, Synthesis of copper-alumina nanocomposite by reactive milling, *Mater. Sci. Eng., A*, 393 (2005) 382-386.
100. A.K. Prasada Rao, B.S. Murty and M. Chakraborty, Improvement in tensile strength and load bearing capacity during dry wear of Al-7Si alloy by combined grain refinement and modification, *Mater. Sci. Eng., A*, 395 (2005) 323-326.
101. G.S. Vinod Kumar, B.S. Murty and M. Chakraborty, Development of Al-Ti-C grain refiners and study of their grain refining efficiency on Al and Al-7Si alloy, *J. Alloys Comp.*, 396 (2005) 143-150.
102. K. Mondal and B.S. Murty, On the parameters to assess the glass forming ability of liquids, *J. Non-Cryst. Sol.*, 351 (2005) 1366-1371.
103. M. Chakraborty, G.S. Vinod Kumar and B.S. Murty, Poisoning and fading phenomena in the grain refinement of Al and its alloys, *Trans. Indian Inst. Metals*, 58 (2005) 661-670.
104. B.S. Murty and K. Hono, Al, Mg and Fe based Nanocomposites by rapid solidification processing, *Trans. Indian Inst. Metals*, 58 (2005) 769-775.
105. N. Das, G.K. Dey, B.S. Murty and S.K. Pabi, On amorphization and nanocomposite formation in Al-Ni-Ti system by mechanical alloying, *Pramana*, 65 (2005) 831-840.
106. S.K.S. Parashar, R.N.P. Choudhary and B.S. Murty, Nanocrystalline Zn doped PZT synthesized by mechanical alloying, *Ferroelectrics*, 325 (2005) 65-74.
107. S.K.S. Parashar, R.N.P. Choudhary and B.S. Murty, Size effect of  $\text{Pb}_{0.92}\text{Nd}_{0.08}(\text{Zr}_{0.53}\text{Ti}_{0.47})_{0.98}\text{O}_3$  nanoceramic synthesized by high energy ball milling, *J. Appl. Phys.*, 98 (2005) 104305(1-8).
108. K. Mondal, B.S. Murty and U.K. Chatterjee, Electrochemical behaviour of amorphous and nanoquasicrystalline Zr-Pd and Zr-Pt alloys in different environments, *Corr. Sci.*, 47 (2005) 2619-2635.
109. K. Mondal, B.S. Murty and U.K. Chatterjee, Stress corrosion cracking behavior of 8090 Al-Li alloy in chloride containing medium, *Corrosion Eng. Sci. Tech.*, 40 (2005) 313-320.
110. B.S. Murty and K. Hono, Understanding nanoquasicrystalline phase formation in Zr based alloys, *Trans. Indian Inst. Metals*, 58 (2005) 1213-1227.
111. K. Mondal, U.K. Chatterjee and B.S. Murty, Surface oxides and their effect on the oxidation behavior of amorphous and nanoquasicrystalline Zr-Pd and Zr-Pt alloys, *J. Mater. Res.*, 21 (2006) 639-646.
112. T. Shanmugasundaram, B.S. Murty and V. Subramanya Sarma, Development of ultrafine grained high strength Al-Cu alloy by cryorolling, *Scripta Mater.*, 54 (2006) 2013-2017.
113. S.S. Nayak, D.H. Kim, S.K. Pabi and B.S. Murty, Aluminium-based nanocomposites by non-equilibrium processing routes, *Trans. Indian Inst. Metals*, 59 (2006) 193-198.
114. A.K. Prasada Rao, K. Das, B.S. Murty and M. Chakraborty, Microstructural and wear behavior of hypoeutectic Al-Si Alloy (LM25) grain refined and modified with Al-Ti-C-Sr master alloy, *Wear*, 261 (2006) 133-139.

115. K. Mondal, B.S. Murty and U.K. Chatterjee, Electrochemical behavior of multicomponent amorphous and nanocrystalline Zr-based alloys in different environments, *Corrosion Sci.*, 48 (2006) 2212-2225.
116. B.C. Mohanty, B.S. Murty, V. Vijayan and S. Kasiviswanathan, Atomic force microscopy study of thermal stability of silver selenide thin films grown on silicon, *Appl. Surface Sci.*, 252 (2006) 7975-7982.
117. K. Mondal and B.S. Murty, Prediction of maximum homogeneous nucleation temperature for crystallization of metallic glasses, *J. Non-Cryst. Sol.*, 352 (2006) 5257-5264.
118. S.S. Nayak, S.K. Pabi and B.S. Murty, High strength nanocrystalline  $L1_2$ -Al<sub>3</sub>(Ti,Zr) intermetallics synthesized by mechanical alloying, *Intermetallics*, 15 (2007) 26-33.
119. A. Mandal, M. Chakraborty and B.S. Murty, Effect of TiB<sub>2</sub> particles on sliding wear behavior of Al-4Cu alloy, *Wear*, 262 (2007) 160-166.
120. Jatin Bhatt, S.K. Pabi and B.S. Murty, Nanoindentation studies on amorphous, nanoquasicrystalline and nanocrystalline Zr<sub>80</sub>Pt<sub>20</sub> and Zr<sub>75</sub>Pd<sub>25</sub> alloys, *J. Nanosci. Nanotech.* 7 (2007) 658-662.
121. J. Joardar, S.K. Pabi and B.S. Murty, Milling criteria for the synthesis of nanocrystalline NiAl by mechanical alloying, *J. Alloys Comp.*, 429 (2007) 204-210.
122. B.S. Rao, Jatin Bhatt and B.S. Murty, Identification of compositions with highest glass forming ability in multicomponent systems by thermodynamic and topological approaches, *Mater. Sci. Eng., A*, 449-451 (2007) 211-214.
123. K. Mondal, U.K. Chatterjee and B.S. Murty, Oxidation behavior of multicomponent Zr based amorphous alloys, *J. Alloys Comp.*, 433 (2007) 162-170.
124. K. Mondal and B.S. Murty, On the prediction of solid-liquid interfacial energy of glass forming liquids from homogeneous nucleation theory, *Mater. Sci. Eng., A*, 454-455 (2007) 654-661.
125. S. Sahni, S.B. Reddy and B.S. Murty, Influence of process parameters on the synthesis of nano titania by sol-gel route, *Mater. Sci. Eng., A*, 452-453 (2007) 758-762.
126. S.K.S. Parashar, P. Padhi, A.K. Thakur, R.N.P. Choudhary and B.S. Murty, Finite element model in nanoindentation to study nonlinear behaviour of nanoceramic PGZT, *Mater. Manuf. Proc.*, 22 (2007) 337-340.
127. Jatin Bhatt, S. Kumar, C. Dong and B.S. Murty, Tribological behaviour of Cu<sub>60</sub>Zr<sub>30</sub>Ti<sub>10</sub> bulk metallic glass, *Mater. Sci. Eng., A*, 458 (2007) 290-294.
128. Jatin Bhatt, Wu Jiang, Xia Junhai, Wang Qing, C. Dong and B.S. Murty, Optimization of Bulk Metallic glass forming compositions in Zr-Cu-Al system by thermodynamic modeling, *Intermetallics*, 15 (2007) 716-721.
129. T. Venugopal, K. Prasad Rao and B. S. Murty, Synthesis of Cu-W nanocomposite by high-energy ball milling, *J. Nanosci. Nanotech.*, 7 (2007) 2376-2381.
130. R. Malewar, K.S. Kumar, B.S. Murty, B. Sarma and S.K. Pabi, On sinterability of nanostructured W produced by high energy ball milling, *J. Mater. Res.*, 22 (2007) 1200-1206.
131. A. Takeuchi, B.S. Murty, M. Hasegawa, S. Ranganathan and A. Inoue, Analysis of bulk metallic glass formation using a tetrahedron composition diagram that consists of constituent classes based on blocks of elements in the periodic table, *Mater. Trans.*, 48 (2007) 1304-1312.
132. A. Mandal, B.S. Murty and M. Chakraborty, Wear behaviour of Al-Si alloys reinforced with in-situ formed TiB<sub>2</sub> particles, *Trans. Indian Inst. Metals*, 60 (2007) 113-117.
133. N. Babcsan, G.S. Vinod Kumar, B.S. Murty and J. Banhart, Grain refiners as liquid metal foam stabilizers, *Trans. Indian Inst. Metals*, 60 (2007) 127-132.
134. S. Kumar, V. Subramanya Sarma, M. Chakraborty and B.S. Murty, A comparative study of mechanical properties and wear behaviour of Al-4Cu-TiB<sub>2</sub> and Al-4Cu-TiC in-situ composites, *Trans. Indian Inst. Metals*, 60 (2007) 201-205.
135. A.K. Prasada Rao, K. Das, B.S. Murty and M. Chakraborty, Role of combined addition of Sr and Sb on the microstructure and mechanical properties of cast A356 alloy, *Trans. Indian Inst. Metals*, 60 (2007) 257-261.
136. Jatin Bhatt, P.K. Ray and B.S. Murty, Understanding bulk metallic glass formation in Zr-Cu-Al system by thermodynamic approach, *Trans. Indian Inst. Metals*, 60 (2007) 323-330.
137. T. Venugopal, K. Prasad Rao and B.S. Murty, Mechanical and electrical properties of Cu-Ta nanocomposites prepared by high energy ball milling, *Acta Mater.*, 55 (2007) 4439-4445.
138. S. Kumar, V. Subramanya Sarma and B.S. Murty, Influence of in situ formed TiB<sub>2</sub> particles on the abrasive wear behaviour of Al-4Cu alloy, *Mater. Sci. Eng., A*, 465 (2007) 160-164.
139. S. Dev, A.A. Stuart, R.C.R. Dev Kumaar, B.S. Murty and K. Prasad Rao, Effect of Scandium additions on the microstructure and mechanical properties of Al-Zn-Mg alloy welds, *Mater. Sci. Eng., A*, 467 (2007) 132-138.
140. M. Venkata Ramana, G. Sreenivasulu, N. Ramamanohar Reddy, K.V. Siva Kumar, B.S. Murty and V.R.K. Murthy, Internal friction and longitudinal modulus behaviour of multiferroic PbZr<sub>0.52</sub>Ti<sub>0.48</sub>O<sub>3</sub> + Ni<sub>0.93</sub>Co<sub>0.02</sub>Mn<sub>0.05</sub>Fe<sub>1.95</sub>O<sub>4-δ</sub> particulate composites, *J. Phys. D: Appl. Phys.*, 40 (2007) 7565-7571.
141. T. Prakash, K. Padma Prasad, R. Kavitha, S. Ramasamy and B.S. Murty, Dielectric Relaxation studies of nanocrystalline CuAlO<sub>2</sub> using modulus formalism, *J. Appl. Phys.*, 102 (2007) 104104(1-5).

142. G.S. Vinod Kumar, F. Garcia-Moreno, N. Babcsan, A.H. Brothers, B.S. Murty and J. Banhart, Study on aluminium-based single films, *Phys. Chem. Chem. Phys.*, 9 (2007) 6415-6425.
143. C.R. Das, A.K. Bhaduri, S.K. Albert and B.S. Murty, Effect of prior heat treatment of base metal on the deformation behavior of heat affected zones, *Welding in the World*, 51 (2007) 171-176.
144. A.K. Prasada Rao, K. Das, B.S. Murty and M. Chakraborty, Microstructural Features of as-cast A356 alloy inoculated with Sr, Sb modifiers and Al-Ti-C grain refiner simultaneously, *Mater. Lett.*, 62 (2008) 273-275.
145. A.K. Prasada Rao, K. Das, B.S. Murty and M. Chakraborty, Microstructure and the wear mechanism of grain refined aluminum during dry-sliding against steel disc, *Wear*, 264 (2008) 638-647.
146. S. Kumar, V. Subramanya Sarma and B.S. Murty, A statistical analysis on erosion wear behaviour of A356 alloy reinforced with in-situ formed TiB<sub>2</sub> particles, *Mater. Sci. Eng., A*, 476 (2008) 333-340.
147. A.K. Prasada Rao, K. Das, B.S. Murty and M. Chakraborty, On the modification and segregation behavior of Sb in Al-Si alloy during solidification, *Mater. Lett.*, 62 (2008) 2013-2016.
148. C.R. Das, S.K. Albert, A.K. Bhaduri, G. Srinivasan and B.S. Murty, Effect of prior microstructure on microstructure and mechanical properties of modified 9Cr-1Mo steel weld joints, *Mater. Sci. Eng., A*, 477 (2008) 185-192.
149. S. Kumar, M. Chakraborty, V. Subramanya Sarma and B.S. Murty, Tensile and wear behaviour of in-situ Al-7Si/TiB<sub>2</sub> particulate composites, *Wear*, 265 (2008) 134-142.
150. Jatin Bhatt and B.S. Murty, On the conditions for the synthesis of bulk metallic glasses by mechanical alloying, *J. Alloys Comp.*, 459 (2008) 135-141.
151. K.R. Ravi, M. Saravanan, R.M. Pillai, A. Mandal, B.S. Murty, M. Chakraborty and B.C. Pai, Equal channel angular pressing of Al-5wt % TiB<sub>2</sub> in-situ composite, *J. Alloys Comp.*, 459 (2008) 239-243.
152. K. Surekha, B.S. Murty and K. Prasad Rao, Microstructural characterization and corrosion behavior of multipass friction stir processed AA2219 aluminium alloy, *Surf. Coating Tech.*, 202 (2008) 4057-4068.
153. K. Mondal, U.K. Chatterjee and B.S. Murty, Oxidation behavior of amorphous and nanoquasicrystalline Zr-Pd and Zr-Pt alloys, *J. Alloys Comp.*, 460 (2008) 172-181.
154. S. Varalakshmi, M. Kamaraj and B.S. Murty, Synthesis and characterization of nanocrystalline AlFeTiCrZnCu high entropy solid solution by mechanical alloying, *J. Alloys Comp.*, 460 (2008) 253-257.
155. Jatin Bhatt, G.K. Dey and B.S. Murty, Thermodynamic and topological modeling and synthesis of Cu-Zr-Ti-Ni based bulk metallic glasses by mechanical alloying, *Metall. Mater. Trans. A*, 39A (2008) 1543-1551.
156. T. Shanmugasundaram, V. Subramanya Sarma, B.S. Murty and M. Heilmaier, High strength bulk nanostructured 2219 Al alloy produced by high energy ball milling and hot pressing, *Mater. Sci. Forum*, 584-586 (2008) 97-101.
157. T. Prakash, K. Padma Prasad, S. Ramasamy and B.S. Murty, Optical and electrical properties of mechanochemically synthesized nanocrystalline delafossite CuAlO<sub>2</sub>, *J. Nanosci. Nanotech.*, 8 (2008) 4273-4278.
158. A. Mandal, M. Chakraborty and B.S. Murty, Ageing behaviour of A356 alloy reinforced with in-situ formed TiB<sub>2</sub> particles, *Mater. Sci. Eng., A*, 489 (2008) 220-226.
159. A. Chattopadhyay, V. Subramanya Sarma, B.S. Murty, A. Haldar and D. Bhattacharjee, Studies on hot rolled galvanized steel sheets: segregation of alloying elements at the surface, *Scripta Mater.*, 59 (2008) 522-525.
160. G. Sreenivasulu, R. Gopalan, V. Chandrasekaran, G. Markandeyulu, K.G. Suresh and B.S. Murty, Spark plasma sintered Sm<sub>2</sub>Co<sub>17</sub>-FeCo nanocomposite permanent magnets synthesized by high energy ball milling, *NanoTech.* 19 (2008) 335701(1-7).
161. P.K. Ray, K. Chattopadhyay and B.S. Murty, Influence of Thermodynamics and local geometry on glass formation in Zr based alloys, *Appl. Phys. Lett.*, 93 (2008) 061903(1-3).
162. S.S. Nayak, B.S. Murty and S.K. Pabi, Structure of nanocomposites of Al-Fe alloys prepared by mechanical alloying and rapid solidification processing, *Bull. Mater. Sci.*, 31 (2008) 449-454.
163. N. Das, U.D. Kulkarni, S.K. Pabi, B.S. Murty and G.K. Dey, Development of a thermodynamic criterion to predict the alloy compositions for amorphous and nanocrystalline phase formation during mechanical alloying, *Defect Diffusion Forum*, 279 (2008) 147-151.
164. N.C. Abhik, R. Vivek, V. Udhayabanu and B.S. Murty, Influence of heat of formation of B2/L1<sub>2</sub> intermetallic compounds on the milling energy for their formation during mechanical alloying, *J. Alloys Comp.*, 465 (2008) 106-112.
165. J. Basu, B.S. Murty and S. Ranganathan, Glass forming ability: Miedema approach to (Zr,Ti,Hf)-(Cu,Ni) binary and ternary alloys, *J. Alloys Comp.*, 465 (2008) 163-172.
166. S. Dev, B.S. Murty and K.P. Rao, Effects of base and filler chemistry and weld techniques on equiaxed zone formation in Al-Zn-Mg alloy welds, *Sci. Tech. Welding and Joining*, 13 (2008) 598-606.
167. B. Praveen Kumar, H.H. Kumar, D.K. Kharat and B.S. Murty, Investigation and characterization of La-doped PZT nanoceramic prepared by mechanical activation route, *Mater. Chem. Phys.*, 112 (2008)

31-34.

168. K. Mondal and B.S. Murty, Determination of kinetic parameters for devitrification of metallic glass-A theoretical approach, *Trans. Indan Inst. Metals.*, 61 (2008) 319-324.
169. A. Takeuchi, S. Ranganathan, B.S. Murty and A. Inoue, Analysis of composition dependence of formation of ternary bulk metallic glasses from crystallographic data on ternary compounds, *Rev. Adv. Mater. Sci.*, 18 (2008) 56-60.
170. R. Rakesh Radhakrishnan, G. Sreenivasulu and B.S. Murty, Structural, electrical and magnetic properties of nanosized Ni-Co ferrite prepared by high energy ball milling, *Trans. PMAI*, 34 (2008) 49-54.
171. S.K.S. Parashar, R.N.P. Choudhary and B.S. Murty, Nanoscale structure-property relations in Sm modified Lead Zirconate Titanate, *J. Nanosci. Nanotech.*, 9 (2009) 3106-3111.
172. S. Scudino, G. Liu, K.G. Prashanth, B. Bartusch, K.B. Surreddi, B.S. Murty and J. Eckert, Mechanical properties of Al-based metal matrix composites reinforced with Zr-based glassy particles produced by powder metallurgy, *Acta Mater.*, 57 (2009) 2029-2039.
173. A. Mandal, B.S. Murty and M. Chakraborty, Sliding wear behaviour of T6 treated A356-TiB<sub>2</sub> in-situ composites, *Wear*, 266 (2009) 865-872.
174. G.S. Vinod Kumar, B.S. Murty and M. Chakraborty, Grain refinement response of LM25 alloy towards Al-Ti-C and Al-Ti-B grain refiners, *J. Alloys Comp.*, 472 (2009) 112-120.
175. G. Sreenivasulu, V. Hari Babu, G. Markandeyulu and B.S. Murty, Magnetoelectric effect of (100-x)BaTiO<sub>3</sub>-(x)NiFe<sub>1.98</sub>O<sub>4</sub> (x = 20-80 wt. %) particulate nanocomposites, *Appl. Phys. Lett.*, 94 (2009) 112902(1-3).
176. S. Kumar, V. Subramanya Sarma and B.S. Murty, Effect of temperature on the wear behavior of Al-7Si-TiB<sub>2</sub> in-situ composites, *Metall. Mater. Trans. A*, 40A (2009) 223-231.
177. K.G. Prashanth, S. Scudino, K.B. Surreddi, M. Sakaliyska, B.S. Murty and J. Eckert, Crystallization kinetics of Zr<sub>65</sub>Ag<sub>5</sub>Cu<sub>12.5</sub>Ni<sub>10</sub>Al<sub>7.5</sub> glassy powders produced by ball milling of pre-alloyed ingots, *Mater. Sci. Eng., A*, 513-514 (2009) 279-285.
178. S. Kumar, V. Subramanya Sarma and B.S. Murty, The influence of room temperature and cryogenic temperature rolling on the aging and wear behaviour of Al-Cu-5TiB<sub>2</sub> in-situ composites, *J. Alloys Comp.*, 479 (2009) 268-273.
179. Sheela Singh, M.M. Godkhindi, R.V. Krishnarao and B.S. Murty, Effect of milling energy on mechanical activation of (Mo+Si<sub>3</sub>N<sub>4</sub>) powders during the synthesis of Si<sub>3</sub>N<sub>4</sub>-MoSi<sub>2</sub> in-situ composites, *J. Euro. Cer. Soc.*, 29 (2009) 2069-2077.
180. K. Mondal, Ajay Kumar, G. Gupta and B.S. Murty, Temperature and structure dependency of solid-liquid interfacial energy, *Acta Mater.* 57 (2009) 3422-3430.
181. K.G. Prashanth, S. Scudino, B.S. Murty and J. Eckert, Crystallization kinetics and consolidation of mechanically alloyed Al<sub>70</sub>Y<sub>16</sub>Ni<sub>10</sub>Co<sub>4</sub> glassy powders, *J. Alloys Comp.*, 477 (2009) 171-177.
182. K. Surekha, B.S. Murty and K. Prasad Rao, Effect of processing parameters on the corrosion behavior of friction stir processed AA 2219 aluminium alloy, *Solid State Sci.*, 11 (2009) 907-917.
183. A. Mandal, B.S. Murty and M. Chakraborty, Wear behaviour of near eutectic Al-Si alloy reinforced with in-situ TiB<sub>2</sub> particles, *Mater. Sci. Eng., A*, 506 (2009) 27-33.
184. A.K. Prasada Rao, K. Das, B.S. Murty and M. Chakraborty, Al-Ti-C-Sr master alloy-A melt inoculant for simultaneous grain refinement and modification of hypoeutectic Al-Si alloys, *J. Alloys Comp.*, 480 (2009) L49-L51.
185. M. Venkata Ramanaa, N. Ramamanohar Reddy, G. Sreenivasulu, K.V. Siva Kumar, B.S. Murty and V.R.K. Murthy, Enhanced magnetoelectric voltage in multiferroic particulate Ni<sub>0.83</sub>Co<sub>0.15</sub>Cu<sub>0.02</sub>Fe<sub>1.9</sub>O<sub>4-δ</sub>/PbZr<sub>0.52</sub>Ti<sub>0.48</sub>O<sub>3</sub> composites-dielectric, piezoelectric and magnetic properties, *Current Appl. Phys.*, 9 (2009) 1134-1139.
186. S. Vardhan Lalam, G. Madhusudhan Reddy, T. Mohandas, M. Kamaraj and B.S. Murty, Continuous drive friction welding of inconel 718 and EN24 dissimilar metal combination, *Mater. Sci. Technol.*, 25 (2009) 851-861.
187. B. Praveen Kumar, G. Sreenivasulu, H.H. Kumar, D.K. Kharat, M. Balasubramanian and B.S. Murty, Size effect studies on nanocrystalline Pb(Zr<sub>0.53</sub>Ti<sub>0.47</sub>)O<sub>3</sub> synthesized by mechanical activation route, *Mater. Chem. Phys.*, 117 (2009) 338-342.
188. A. Chattopadhyay, V. Subramanya Sarma, B.S. Murty, A. Haldar and D. Bhattacharjee, Studies on hot rolled galvanized steel sheets: Effect of reheating on galvanising, *Surface and Coating Technol.*, 203 (2009) 3465-3471.
189. B.C. Mohanty, P. Malar, T. Osipowicz, B.S. Murty, S. Varma and S. Kasiviswanathan, Characterization of silver selenide thin films grown on Cr-covered Si substrates, *Surf. Interface Anal.*, 41 (2009) 170-178.
190. M. Venkata Ramana, V.R.K. Murthy and B.S. Murty, Studies on lead free nano Ba<sub>0.9</sub>Sr<sub>0.1</sub>TiO<sub>3</sub> ferroelectric ceramics: synthesis, characterization and properties, *Trans. PMAI*, 35 (2009) 38-43.
191. T. Shanmugasundaram, M. Heilmaier, B.S. Murty and V. Subramanya Sarma, Microstructure and mechanical properties of nanostructured Al-4Cu alloy produced by mechanical alloying and vacuum

- hot pressing, *Metall. Mater. Trans. A*, 40A (2009) 2798-2801.
192. C.R. Das, M. Divya, S.K. Albert, A.K. Bhaduri and B.S. Murty, Microstructural evolution in the intercritical heat affected zone of a boron containing modified 9Cr-1Mo steel, *Welding in the World*, 53 (2009) 511-515.
  193. Jatin Bhattand and B.S. Murty, Thermodynamic modeling of Zr-Ti-Cu-Ni-Be bulk metallic glass, *Trans. Indian Inst. Metals*, 62 (2009) 413-416.
  194. J. Bhatt and B.S. Murty, Identification of bulk metallic glass forming compositions through thermodynamic and topological models, *Mater. Sci. Forum*, 649 (2010) 67-73.
  195. S. Kumar, V. Subramanya Sarma and B.S. Murty, Functionally graded Al-alloy matrix in-situ composites, *Metall. Mater. Trans. A*, 41A (2010) 242-254.
  196. K. Murugan, T.N. Rao, A.S. Gandhi and B.S. Murty, Effect of aggregation of methylene blue dye on TiO<sub>2</sub> surface in self-cleaning studies, *Catalysis Commun.*, 11 (2010) 518-521.
  197. V. Udhayabanu, K.R. Ravi, V. Vinod and B.S. Murty, Synthesis of in-situ NiAl-Al<sub>2</sub>O<sub>3</sub> nanocomposite by reactive milling and subsequent heat treatment, *Intermetallics*, 18 (2010) 353-358.
  198. S. Varalakshmi, M. Kamaraj and B.S. Murty, Processing and properties of nanocrystalline CuNiCoZnAlTi high entropy alloys by mechanical alloying, *Mater. Sci. Eng., A*, 527 (2010) 1027-1030.
  199. S.S. Nayak, M. Wollgarten, J. Banhart, S.K. Pabi, and B.S. Murty, Nanocomposites and an extremely hard nanocrystalline intermetallic of Al-Fe alloys prepared by mechanical alloying, *Mater. Sci. Eng., A*, 527 (2010) 2370-2378.
  200. S.S. Nayak, S.K. Pabi and B.S. Murty, Al-(L1<sub>2</sub>) Al<sub>3</sub>Ti nanocomposites prepared by mechanical alloying: Synthesis and mechanical properties, *J Alloy Comp.*, 492 (2010) 128-133.
  201. S.S. Nayak, S.K. Pabi, D.H. Kim and B.S. Murty, Microstructure-hardness relationship of Al-(L1<sub>2</sub>)Al<sub>3</sub>Ti nanocomposites prepared by rapid solidification processing, *Intermetallics*, 18 (2010) 487-492.
  202. G.S. Vinod Kumar, B.S. Murty and M. Chakraborty, Effect of TiAl<sub>3</sub> particle size and distribution on their settling and dissolution behaviour in aluminium, *J. Mater. Sci.*, 45 (2010) 2921-2929.
  203. S. Kumar, V. Subramanya Sarma and B.S. Murty, High temperature wear behaviour of Al-4Cu-TiB<sub>2</sub> in-situ composites, *Wear*, 268 (2010) 1266-1274.
  204. V. Udhayabanu, N. Singh and B.S. Murty, Mechanical activation of aluminothermic reduction of NiO by high energy ball milling, *J alloys Comp.*, 497 (2010) 142-146.
  205. R.K. Khatirkar and B.S. Murty, Structural changes in iron powder during ball milling, *Mater. Chem. Phys.*, 123 (2010) 247-253.
  206. D. Mukherjee, V. Anand, R. Manna, B.S. Murty and N.K. Mukhopadhyay, Formation of nanostructured and amorphous  $\beta$ -Al<sub>3</sub>Mg<sub>2</sub> based alloys by rapid solidification and mechanical milling, *Mater. Sci. Eng., A*, 527 (2010) 5078-5083.
  207. G.S. Vinod Kumar, B.S. Murty and M. Chakraborty, Settling behaviour of TiAl<sub>3</sub>, TiB<sub>2</sub>, TiC and AlB<sub>2</sub> particles in Liquid Al during grain refinement, *Int. J. Cast Metals Res.*, 23 (2010) 193-204.
  208. P. Susila, D. Sturm, M. Heilmaier, B.S. Murty and V. Subramanya Sarma, Microstructural studies on nanocrystalline oxide dispersion strengthened austenitic (Fe-18Cr-8Ni-2W-0.25Y<sub>2</sub>O<sub>3</sub>) alloy synthesized by high energy ball milling and vacuum hot pressing, *J. Mater. Sci.*, 45 (2010) 4858-4865.
  209. S. Varalakshmi, G. Appa Rao, M. Kamaraj and B.S. Murty, Hot consolidation and mechanical properties of nanocrystalline equiatomic AlFeTiCrZnCu high entropy alloy after mechanical alloying, *J. Mater. Sci.*, 45 (2010) 5158-5163.
  210. K.G. Prashanth and B.S. Murty, Production, kinetic study and properties of Fe-based glass and its composites, *Mater. Manuf. Proc.*, 25 (2010) 592-597.
  211. M. Venkata Ramana, M. Penchal Reddy, N. Ramamanohar Reddy, K.V. Siva Kumar, V.R.K. Murthy, and B.S. Murty, Nanocrystalline Pb(Zr<sub>0.52</sub>Ti<sub>0.48</sub>)O<sub>3</sub> ferroelectric ceramics: Mechanical and electrical properties, *J. Nanomater.*, (2010) 783043(1-8).
  212. S. Varalakshmi, M. Kamaraj and B.S. Murty, Formation and stability of equiatomic and non-equiatomic nanocrystalline CuNiCoZnAlTi high entropy alloys by mechanical alloying, *Metall. Mater. Trans. A*, 41A (2010) 2703-2709.
  213. M. Timpel, N. Wanderka, B.S. Murty and J. Banhart, Three-dimensional visualization of the microstructure development of Sr-modified Al-15Si casting alloy using FIB-EsB tomography, *Acta Mater.*, 58 (2010) 6600-6608.
  214. T. Shanmugasundaram, M. Heilmaier, B.S. Murty and V. Subramanya Sarma, On the Hall-Petch relationship in a nanostructured Al-Cu alloy, *Mater. Sci. Eng., A*, 527 (2010) 7821-7825.
  215. P. Susila, D. Sturm, M. Heilmaier, B.S. Murty and V. Subramanya Sarma, Compression creep studies of mechanically alloyed nanostructured Fe-12Cr-2W-0.25Y<sub>2</sub>O<sub>3</sub> ODS alloy, *J. Phys. Conf. Series*, 240 (2010) 012090(1-4).
  216. A. Elsayed, C. Ravindran and B.S. Murty, Grain refinement and fading of Aluminum-Titanium-Boron based refiner on AZ91E Magnesium alloy, *AFS Trans.*, 118 (2010) 311-317.
  217. K. Lee, C. Ravindran and B.S. Murty, Grain refinement of AZ91E with TiB<sub>2</sub> and Al<sub>4</sub>C<sub>3</sub> additions, *AFS Trans.*, 118 (2010) 319-329.



218. A. Chattopadhyay, K.C. Hari Kumar, V. Subramanya Sarma, B.S. Murty and D. Bhattacharjee, Prediction of carbon segregation on the surface of continuously annealed hot rolled LCAK steel, *Surf. Coat Tech.*, 205 (2010) 2051-2054.
219. M.S. Senthil Saravanan, K. Sivaprasad, S.P. Kumaresh babu, P. Susila and B.S. Murty, Synthesis and characterization of CNT reinforced AA4032 nano composites by high energy ball milling, *AIP Conf. Proc.*, 1276 (2010) 82-87.
220. M. Venkata Ramana, N. Ramamanohar Reddy, B.S. Murty, V.R.K. Murthy and K.V. Siva Kumar, Ferromagnetic-Dielectric  $\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_{1.9}\text{O}_{4-\delta}/\text{PbZr}_{0.52}\text{Ti}_{0.48}\text{O}_3$  particulate composites: electric, magnetic, mechanical and electromagnetic properties, *Adv. Cond. Matter Phys.*, (2010) 763406(1-14).
221. B. Debalina, M. Kamaraj, B.S. Murthy, S.R. Chakravarthi and R. Sarathi, Generation and characterization of nano-tungsten carbide particles by wire explosion process, *J. Alloys Comp.*, 496 (2010) 122-128.
222. A.K. Bhaduri, C.R. Das, S.K. Albert, A. Klenk and B.S. Murty, Study of deformation behavior of simulated intercritical heat-affected zones of modified 9Cr-1Mo steel, *Mater. Manu. Proc.* 26 (2011) 62-65.
223. S. Singh, N. Wanderka, B.S Murty, U. Glatzel and J. Banhart, Decomposition in multi-component AlCoCrCuFeNi high entropy alloy, *Acta Mater.*, 59 (2011) 182-190.
224. M. Venkata Ramana, N. Ramamanohar Reddy, K.V. Siva Kumar, V.R.K. Murthy and B.S. Murty, Magneto-electric effect in multiferroic  $\text{Ni}_{0.93}\text{Co}_{0.02}\text{Mn}_{0.05}\text{Fe}_{1.95}\text{O}_{4-\delta}/\text{PbZr}_{0.52}\text{Ti}_{0.48}\text{O}_3$  particulate composites: dielectric, piezoelectric properties, *Modern Phys. Lett. B*, 25 (2011) 345-358.
225. M. Venkata Ramana, S. Roopas Kiran, N. Ramamanohar Reddy, K.V. Siva Kumar, V.R.K. Murthy and B.S. Murty, Investigation and characterization of  $\text{Pb}(\text{Zr}_{0.52}\text{Ti}_{0.48})\text{O}_3$  nanocrystalline ferroelectric ceramics: By conventional and microwave sintering methods, *Mater. Chem. Phys.*, 126 (2011) 295-300.
226. Jatin Bhatt, S. Kumar and B.S. Murty, Thermodynamic model and synthesis of bulk metallic glass in Cu-Zr-Ti system by mechanical alloying, *Mater. Sci. Forum*, 675-677 (2011) 189-192.
227. M.S.S. Saravanan, S.P. Kumaresh Babu, K. Sivaprasad, B. Ravisankar, P. Susila and B.S. Murty, Consolidation of CNT-reinforced AA4032 nanocomposites by ECAP, *Int. J. Nanosci.*, 10 (2011) 233-236.
228. P. Susila, D. Sturm, M. Heilmaier, B.S. Murty and V. Subramanya Sarma, Effect of yttria particle size on the microstructure and compression creep properties of nanostructured oxide dispersion strengthened ferritic (Fe-12Cr-2W-0.5Y<sub>2</sub>O<sub>3</sub>) alloy, *Mater. Sci. Eng., A*, 528 (2011) 4579-4584.
229. T. Prakash, S. Ramasamy and B.S. Murty, Effect of DC bias on electrical conductivity of nanocrystalline  $\alpha$ -CuSCN, *AIP Advances*, 1 (2011) 022107(1-7).
230. A. Elsayed, C. Ravindran and B.S. Murty, Effects of Al-Ti-B based grain refiners on AZ91E Magnesium alloy grain size and microstructure, *Int. J. Metal Casting*, 5 (2011) 29-41.
231. Ch. Sree Rama Linga Prasad, G. Sreenivasulu, S. Roopas Kiran, M. Balasubramanian and B.S. Murty, Electrical and magnetic properties of nanocrystalline BiFeO<sub>3</sub> prepared by high energy ball milling and microwave sintering, *J. Nanosci. Nanotech.*, 11 (2011) 4097-4102.
232. A. Lombardi, F. D' Elia, C. Ravindran, B.S. Murty and R. MacKay, Analysis of the secondary phases in the microstructure of 319 Type Al alloy engine blocks using electron microscopy and nanoindentation, *Trans. Indian Inst. Metals*, 64 (2011) 7-11.
233. Nikhil Charbhai, B.S. Murty and S. Sankaran, Characterization of microstructure and precipitation behavior in Al-4Cu-xTiB<sub>2</sub> *in-situ* composite, *Trans. Indian Inst. Metals*, 64 (2011) 117-121.
234. Sree Harsha Nandam, S. Sankaran and B.S. Murty, Precipitation kinetics in Al-Si-Mg/TiB<sub>2</sub> *in-situ* composites, *Trans. Indian Inst. Metals*, 64 (2011) 123-126.
235. M. Venkata Ramana, S. Roopas Kiran, N. Ramamanohar Reddy, K.V. Siva Kumar, V.R.K. Murthy and B.S. Murty, Synthesis of lead free sodium bismuth titanate (NBT) ceramic by conventional and microwave sintering methods, *J. Adv. Dielectrics*, 1 (2011) 71-77.
236. T. Prakash, S. Ramasamy and B.S. Murty, Influence of bias voltage dielectric relaxation of nanocrystalline anatase TiO<sub>2</sub> using modulus formalism *J. Appl. Phys.*, 109 (2011) 084116(1-5).
237. M. Ashfaq, K.P. Rao, H.K. Rafi, B.S. Murty, H.C. Dey and A.K. Bhaduri, Friction welding of titanium to 304L stainless steel using interlayers, *Practical Metallography*, 48 (2011) 188-207.
238. K.R. Ravi, S. Manivannan, G. Phanikumar, B.S. Murty and Suresh Sundarraj, Influence of Mg on grain refinement of near eutectic Al-Si alloys, *Metall. Mater. Trans. A*, 42A (2011) 2028-2039.
239. V. Udhayabanu, K.R. Ravi, K. Murugan, D. Sivaprahasam and B.S. Murty, Development of Ni-Al<sub>2</sub>O<sub>3</sub> *in-situ* nanocomposite by reactive milling and spark plasma sintering, *Metall. Mater. Trans. A*, 42A (2011) 2085-2093.
240. V. Udhayabanu, K.R. Ravi and B.S. Murty, Development of *in-situ* NiAl-Al<sub>2</sub>O<sub>3</sub> nanocomposite by reactive milling and spark plasma sintering, *J. Alloys Comp.*, 509S (2011) S223-S228.
241. K. Surekha, B.S. Murty and K. Prasad Rao, Comparison of corrosion behaviour of friction stir processed and laser Melted AA 2219 aluminium alloy, *Mater. Design*, 32 (2011) 4502-4508.
242. S.S. Nayak, H.J. Chang, D.H. Kim, S.K. Pabi and B.S. Murty, Formation of metastable phases and

- nanocomposite structures in rapidly solidified Al-Fe alloys, *Mater. Sci. Eng., A*, 528 (2011) 5967-5973.
243. T. Shanmugasundaram, M. Heilmaier, V. Subramanya Sarma and B.S. Murty, Thermal stability of vacuum hot pressed bulk nanostructured Al-Cu alloy, *Mater. Sci. Forum*, 690 (2011) 234-237.
  244. A. Elsayed, C. Ravindran and B.S. Murty, Effect of Al-Ti-B based master alloys on grain refinement and hot tearing Susceptibility of AZ91E magnesium Alloy, *Mater. Sci. Forum*, 690 (2011) 351-354.
  245. K. Murugan, Tata N. Rao, G.V. Narashima Rao, A.S. Gandhi and B.S. Murty, Effect of dehydration rate on non-hydrolytic TiO<sub>2</sub> thin film processing: Structure, optical and photocatalytic performance studies, *Mater. Chem. Phys.*, 129 (2011) 810-815.
  246. B.S. Murty and T. Venugopal, Nanostructured materials by high energy ball milling, *Encyclopedia of Nanoscience and Nanotechnology*, 19 (2011) 1-41.
  247. Avinash Chethan, Francisco Garcia-Moreno, N. Wanderka, B.S. Murty and J. Banhart, Influence of Oxides on the Stability of Zinc Foam, *J. Mater. Sci.*, 46 (2011) 7806-7814.
  248. C.R. Das, S.K. Albert, A.K. Bhaduri and B.S. Murty, Characterization of ferrite in tempered martensite of modified 9Cr-1Mo steel using electron backscattered diffraction technique, *Metall. Mater. Trans. A*, 42A (2011) 3849-3852.
  249. Ajeet K. Srivastav, M. Sankaranarayana and B.S. Murty, Initial-stage sintering kinetics of nanocrystalline tungsten, *Metall. Mater. Trans. A*, 42A (2011) 3863-3866.
  250. B. Ramakrishna Rao, A.K. Shah, M. Srinivas, Jatin Bhatt, A.S. Gandhi and B.S. Murty, On prediction of amorphous phase forming compositions in the Iron-rich Fe-Zr-B ternary system and their synthesis, *Metall. Mater. Trans. A*, 42A (2011) 3913-3920.
  251. K.G. Prashanth, S. Kumar, S. Scudino, B.S. Murty and J. Eckert, Fabrication and response of Al<sub>70</sub>Y<sub>16</sub>Ni<sub>10</sub>Co<sub>4</sub> glass reinforced metal matrix composites, *Mater. Manuf. Proc.*, 26 (2011) 1242-1247.
  252. S. Vincent, D.R. Peshwe, B.S. Murty and Jatin Bhatt, Thermodynamic prediction of bulk metallic glass forming alloys in ternary Zr-Cu-X (X=Ag, Al, Ti, Ga) systems, *J. Non-Cryst. Sol.*, 357 (2011) 3495-3499.
  253. Ajeet K. Srivastav and B.S. Murty, Mechanically milled/alloyed nanostructured materials, *Nanotech. Insights*, 2 (2011) 2-6.
  254. V. Udhayabanu and B.S. Murty, Synthesis of nanocrystalline  $\alpha$ -Al<sub>2</sub>O<sub>3</sub> from nanocrystalline boehmite derived from high energy ball milling of gibbsite, *Trans. Indian Inst. Metals*, 64 (2011) 535-540.
  255. D. Arvindha Babu, B. Majumdar, A.P. Srivastava, B. Ramakrishna Rao, D. Srivastava, B.S. Murty and D. Akhtar, Structure, properties and glass forming ability of melt spun Fe-Zr-B-Cu alloys with different Zr/B ratio, *Metall. Mater. Trans. A*, 42A (2011) 508-516.
  256. S. Roopas Kiran, G. Anisha, V.R.K. Murthy, V. Subramanian and B.S. Murty, Effect on the grain size of single-mode microwave sintered NiCuZn ferrite and zinc titanate dielectric resonator ceramics, *J. Microwave Power Electromagnetic Energy*, 45 (2011) 128-136.
  257. Rajeev K. Gupta, K.S. Darling, R.K. Singh Raman, K.R. Ravi, C.C. Koch, B.S. Murty and R.O. Scattergood, Synthesis, characterization and mechanical behaviour of an in-situ consolidated nanocrystalline FeCrNi alloy, *J. Mater. Sci.*, 47 (2012) 1562-1566.
  258. B. Karthik, G. Sai Gautam, N.R. Karthikeyan, and B.S. Murty, Analysis of mechanical milling in Simoloyer: an energy modeling approach, *Metall. Mater. Trans. A*, 43A (2012) 1323-1327.
  259. K.R. Ravi, A. Murugesan, V. Udhayabanu, R. Subramanian and B.S. Murty, Microstructure and Mechanical Property of Fe-Al<sub>2</sub>O<sub>3</sub> nanocomposites synthesized by reactive milling followed by spark plasma sintering, *Mater. Sci. Forum*, 710 (2012) 291-296.
  260. K.R. Ravi, Indumathi, R. Subramanian and B.S. Murty, Spark plasma sintering of Fe-Cr-Mo-P-B-C-Si amorphous alloy, *Mater. Sci. Forum*, 710 (2012) 320-325.
  261. S. Praveen, B.S. Murty and Ravi S. Kottada, Alloying behavior in multi-component AlCoCrCuFe and NiCoCrCuFe high entropy alloys, *Mater. Sci. Eng., A*, 534 (2012) 83-89.
  262. P. Schloth, M.A. Weisser, H. Van Swygenhoven, S. Van Petegem, P. Susila, V. Subramanya Sarma, B.S. Murty, S. Lauterbach and M. Heilmaier, Two strain-hardening mechanisms in nanocrystalline austenitic steel: An in-situ synchrotron X-Ray diffraction study, *Scripta Mater.*, 66 (2012) 690-693.
  263. S. Vincent, B.S. Murty and Jatin Bhatt, Thermodynamic criteria for bulk metallic glass formation in Zr rich quaternary system, *AIP Conf. Proc.*, 1447 (2012) 583-584.
  264. S. Roopas Kiran, G. Sreenivasulu, V.R.K. Murthy, V. Subramanian and B.S. Murty, Effect of grain size on microwave dielectric characteristics of high-energy ball milled zinc magnesium titanate ceramics, *J. Am. Ceram. Soc.*, 95 (2012) 1973-1979.
  265. C.R. Das, S.K. Albert, A.K. Bhaduri and B.S. Murty, Understanding room temperature deformation behavior through indentation studies on modified 9Cr-1Mo steel weldments, *Mater. Sci. Eng., A*, 552 (2012) 419-426.
  266. A. Durga, K.C. Hari Kumar and B.S. Murty, Phase formation in equiatomic high entropy alloys: CALPHAD approach and experimental studies, *Trans. Indian Inst. Metals*, 65 (2012) 375-380.

267. C.R. Das, S.K. Albert, J. Swaminathan, S. Raju, A.K. Bhaduri and B.S. Murty, Transition of crack from type IV to type II resulting from improved utilisation of Boron in the modified 9Cr-1Mo steel weldment, *Metall. Mater. Trans. A*, 43A (2012) 3724-3741.
268. C.R. Das, S.K. Albert, J. Swaminathan, A.K. Bhaduri, B. Raj and B.S. Murty, Improvement in creep resistance of modified 9Cr-1Mo steel weldment by boron addition, *Welding in the World*, 56 (2012) 10-17.
269. Jatin Bhatt, N. Balachander, S. Shekher, R. Karthikeyan, D.R. Peshwe and B.S. Murty, Synthesis of nanostructured Al-Mg-SiO<sub>2</sub> metal matrix composites using high-energy ball milling and spark plasma sintering, *J. Alloys Comp.*, 536S (2012) S35-S40.
270. Ajeet K. Srivastav and B.S. Murty, Dilatometric analysis on shrinkage behaviour during non-isothermal sintering of nanocrystalline tungsten mechanically alloyed with molybdenum, *J. Alloys Comp.*, 536S (2012) S41-S44.
271. Karthikeyan Rajan, V. Subramanya Sarma, T.R.G. Kutty and B.S. Murty, Hot hardness behaviour of ultrafine grained ferritic oxide dispersion strengthened alloys prepared by mechanical alloying and spark plasma sintering, *Mater. Sci. Eng., A*, 558 (2012) 492-496.
272. R. Raghavan, K.C. Hari Kumar and B.S. Murty, Analysis of phase formation in multi-component alloys, *J. Alloys Comp.*, 544 (2012) 152-158.
273. S. Vincent, J. Basu, B.S. Murty and Jatin Bhatt, Micro indentation study on Cu<sub>60</sub>Zr<sub>20</sub>Ti<sub>20</sub> metallic glass, *Mater. Sci. Eng., A*, 550 (2012) 160-166.
274. S.K.S. Parashar, B.S. Murty, S. Repp, S. Weber and E. Erdem, Investigation of intrinsic defects in core-shell ZnO nanocrystals, *J. Appl. Phys.*, 111 (2012) 113712(1-7).
275. T. Shanmugasundaram, M. Heilmaier, B.S. Murty and V. Subramanya Sarma, On the estimation of true Hall-Petch constants and their role on the superposition law exponent in Al alloys, *Adv. Eng. Mater.*, 14 (2012) 892-897.
276. B. Ramakrishna Rao, A.S. Gandhi, S. Vincent, J. Bhatt and B.S. Murty, Prediction of glass forming ability using thermodynamic parameters, *Trans. Indian Inst. Metals*, 65 (2012) 559-563.
277. Sree Harsha Nandam, Nikhil Charbhai, B.S. Murty and S. Sankaran, Microstructural and mechanical characterization of two aluminium based *in-situ* composite foams, *Trans. Indian Inst. Metals*, 65 (2012) 595-600.
278. S.S. Nayak, D.H. Kim, S.K. Pabi and B.S. Murty, Nanocomposites of Al alloys by rapid solidification processing, *Trans. Indian Inst. Metals*, 65 (2012) 647-651.
279. S. Vincent, B.S. Murty and Jatin Bhatt, Prediction of bulk metallic glass formation in Cu-Zr-Ag-Hf system by thermodynamic and topological modeling, *Trans. Indian Inst. Metals*, 65 (2012) 827-831.
280. A. Lombardi, F.D' Elia, C. Ravindran, D. Sediako, B.S. Murty and R. Mackay, Interplay between residual stresses, microstructure, process variables and engine block casting integrity, *Metall. Mater. Trans. A*, 43A (2012) 5258-5270.
281. M. Venkata Ramana, M. Penchal Reddy, N. Ramamanohar Reddy, B.S. Murty, K.V. Siva Kumar and S. Song, Mechanical properties of Ni<sub>0.83</sub>Co<sub>0.15</sub>Cu<sub>0.02</sub>Fe<sub>1.9</sub>O<sub>4-δ</sub>+PbZr<sub>0.52</sub>Ti<sub>0.48</sub>O<sub>3</sub> particulate composites by composite oscillator technique and correlated with the results of magnetoelectric properties, *J. Adv. Ceramics*, 1 (2012) 317-326.
282. R. Sriharitha, B.S. Murty and Ravi S. Kottada, Phase formation in mechanically alloyed Al<sub>x</sub>CoCrCuFeNi(x=0.45, 1, 2.5, 5 mol) high entropy alloys, *Intermetallics*, 32 (2013) 119-126.
283. B. Ramakrishna Rao, M. Srinivas, A.K. Shah, A.S. Gandhi and B.S. Murty, A new thermodynamic parameter to predict glass forming ability in iron based multi-component systems containing zirconium, *Intermetallics*, 35 (2013) 73-81.
284. T. Prakash, B.S. Murty, A.R. Kaskhedikar and P.D. Peshwe, Crystallite size effect on voltage tunable giant dielectric permittivity of nanocrystalline CuO, *Electronic Mater. Lett.*, 9 (2013) 59-62.
285. N. Das, J. Mittra, B.S. Murty, S.K. Pabi, U.D. Kulkarni and G.K. Dey, Miedema model based methodology to predict amorphous-forming-composition range in binary and ternary systems, *J. Alloys Comp.*, 550 (2013) 483-495.
286. T. Prakash, S. Ramasamy and B.S. Murty, Effect of DC Bias on Dielectric Properties of Nanocrystalline CuAlO<sub>2</sub>, *Electronic Mater. Lett.* 9 (2013) 207-211.
287. N.S. Reddy, A.K. Prasada Rao, J. Krishnaiah, M. Chakraborty and B.S. Murty, Design of an ideal grain refiner alloy for Al-7Si alloy using artificial neural networks, *J. Mater. Eng. Perform.*, 22 (2013) 696-699.
288. Rajeev K. Gupta, R.K. Singh Raman, C.C. Koch and B.S. Murty, Effect of nanocrystalline structure on the corrosion of a Fe-20Cr alloy, *Int. J. Electrochem. Sci.*, 8 (2013) 6791-6806.
289. C.R. Das, S.K. Albert, A.K. Bhaduri and B.S. Murty, Effect of Boron addition and initial heat treatment temperature on microstructure and mechanical properties of modified 9Cr-1Mo steels under different heat treatment conditions, *Metall. Mater. Trans. A*, 44A (2013) 2171-2186.
290. A.B.S. Sastry, R.B. Karthik Aamanchi, Ch. Sree Rama Linga Prasad and B.S. Murty, Large-scale green synthesis of Cu nanoparticles, *Environ. Chem. Lett.*, 11 (2013) 183-187.
291. K.G. Pradeep, N. Wanderka, P. Choi, J. Banhart, B.S. Murty and D. Raabe, Atomic-scale

- compositional characterization of a nanocrystalline AlCrCuFeNiZn high-entropy alloy using atom probe tomography, *Acta Mater.*, 61 (2013) 4696-4706.
292. S. Praveen, Aamey Anupam, Teja Sirasani, B.S. Murty and R.S. Kottada, Characterization of oxide dispersed AlCoCrFe high entropy alloy synthesized by mechanical alloying and spark plasma sintering", *Trans. Indian Inst. Metals*, 66 (2013) 369-373.
  293. Ajeet K. Srivastav, Anup M. Panindre and B.S. Murty, XRD characterization of microstructural evolution during mechanical alloying of W-20 wt. % Mo, *Trans. Indian Inst. Metals*, 66 (2013) 409-414.
  294. Niraj Chawake, Sri Harish Kumar Paleti, B.S. Murty and Ravi S. Kottada, Synthesis and characterization of spark plasma sintered FeAl and in-situ FeAl-Al<sub>2</sub>O<sub>3</sub> composite, *Trans. Indian Inst. Metals*, 66 (2013) 419-424.
  295. M. Venkata Ramana, S. Song and B.S. Murty, Microwave sintering effect on structural and dielectrical properties of Ba<sub>1-x</sub>(Sr/Pb)<sub>x</sub>TiO<sub>3</sub> (x = 0.2 for Sr and Pb) ceramics, *J. Mater. Sci.: Mater. Electronics*, 24 (2013) 2141-2150.
  296. Karthikeyan Rajan, T. Shanmugasundram, V. Subramanya Sarma and B.S. Murty, Effect of Y<sub>2</sub>O<sub>3</sub> on spark plasma sintering kinetics of nanocrystalline 9Cr-1Mo ferritic oxide dispersion strengthened steels, *Metall. Mater. Trans. A*, 44A (2013) 4037-4041.
  297. V. Udhayabanu, K.R. Ravi and B.S. Murty, Ultrafine grained, high-strength NiAl with Al<sub>2</sub>O<sub>3</sub> and Al<sub>4</sub>C<sub>3</sub> nanosized particles dispersed via mechanical alloying in toluene with spark plasma sintering, *Mater. Sci. Eng., A*, 585 (2013) 379-386.
  298. S. Vincent, A.F. Khan, B.S. Murty and Jatin Bhatt, Corrosion characterization on melt spun Cu<sub>60</sub>Zr<sub>20</sub>Ti<sub>20</sub> metallic glass: an experimental case study, *J. Non-Cryst. Sol.*, 379 (2013) 48-53.
  299. Nagamalleswara Rao Alluri, S.K.S Parashar, Kajal Parashar, P.S. Mukherjee and B.S. Murty, Investigation of structural and diffuse phase transition of new nano lead free system xBAO-yBZT-(1-x-y) BCT, *Metall. Mater. Trans. A*, 44A (2013) 5241-5250.
  300. C.R. Das, S.K. Albert, J. Swaminathan, A.K. Bhaduri and B.S. Murty, Effect of boron on creep behaviour of inter-critically annealed modified 9Cr-1Mo steel, *Procedia Eng.*, 55 (2013) 402-407.
  301. K. Murugan, R. Subasri, T.N. Rao, Ashutosh S. Gandhi and B.S. Murty, Synthesis, characterization and demonstration of self-cleaning TiO<sub>2</sub> coatings on glass and glazed ceramic tiles, *Prog. Organic Coatings*, 76 (2013) 1756-1760.
  302. S. Praveen, B.S. Murty and Ravi S. Kottada, Phase evolution and densification behaviour of nanocrystalline multicomponent high entropy alloys during spark plasma sintering, *JOM*, 65 (2013) 1797-1804.
  303. S. Roopas Kiran, V.R.K. Murthy and B.S. Murty, Microwave sintering studies on low loss (Zn,Mg)TiO<sub>3</sub> dielectric resonator materials, *J. Microw. Power Electromagn. Energy*, 47 (2013) 262-269.
  304. Venkata Ramana Mudinepalli, Shenhua Song, Junqin Li and B.S. Murty, A comparative study of structural and electrical properties of Ba<sub>0.8</sub>Pb<sub>0.2</sub>TiO<sub>3</sub> nanocrystalline ceramics prepared by microwave and spark plasma sintering, *Mater. Chem. Phys.*, 142 (2013) 686-691.
  305. Venkata Ramana Mudinepalli, Shenhua Song and B.S. Murty, Microwave sintering effects on structural and dielectric properties of Ba<sub>1-x</sub>(Sr/Pb)<sub>x</sub>TiO<sub>3</sub> (x = 0.2 for Sr and Pb) ceramics, *J. Mater. Sci.: Mater. Electron.*, 24 (2013) 2141-2150.
  306. R. Sriharitha, B.S. Murty and Ravi S. Kottada, Alloying, thermal stability and strengthening in spark plasma sintered Al<sub>x</sub>CoCrCuFeNi high entropy alloys, *J. Alloys Comp.*, 583 (2014) 419-426.
  307. Venkata Ramana Mudinepalli, Shenhua Song, Juqin Li and B.S. Murty, Effect of grain size on the electrical properties of high dense BPT nanocrystalline ferroelectric ceramics, *Ceramic Int.*, 40 (2014) 1781-1788.
  308. R.A. Mondal, B.S. Murty and V.R.K. Murthy, Temperature and frequency dependent electrical properties of NiCuZn ferrite with CuO-rich grain boundary segregation, *J. Alloys Comp.*, 595 (2014) 206-212.
  309. B. Praveen Kumar, H.H. Kumar, D.K. Kharat, M. Balasubramanian and B.S. Murty, Investigation on PZT based Nanostructured functional materials, *Synth. React. Inorg. M*, 44 (2014) 991-994.
  310. A. Radhika Devi, J.A. Chelvane, P.K. Prabhakar, P.V. Padma Priya, Mukesh Doble and B.S. Murty, Generation of drugs coated iron nanoparticles through high energy ball milling, *J. Appl. Phys.*, 115 (2014) 124906(1-4).
  311. S Vincent, Jatin Bhatt and B.S. Murty, Thermodynamic basis for glass formation in Cu-Zr rich ternary systems and their synthesis by mechanical alloying, *Metall. Mater. Trans. A*, 45A (2014) 2363-2370.
  312. Karthikeyan Rajan, Nandani Rai, Subramanya Sarma vadlamani and B.S. Murty, Isothermal grain growth studies on nanostructured 9Cr-1Mo and 9Cr-1W ferritic steels containing nano-sized oxide dispersoids, *Metall. Mater. Trans. A*, 45A (2014) 1684-1688.
  313. S. Praveen, B.S. Murty and Ravi S. Kottada, Effect of molybdenum and niobium on the phase formation and hardness of nanocrystalline CoCrFeNi high entropy alloys, *J. Nano Sci. Nano Tech.*, 14 (2014) 8106-8109.

314. Venkata Ramana Mudinepalli, S.H. Song and B.S. Murty, Enhanced magnetoelectric properties in lead-free  $\text{Ni}_{0.83}\text{Co}_{0.15}\text{Cu}_{0.02}\text{Fe}_{1.9}\text{O}_{4-\delta}/\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$  composites by spark plasma sintering, *Scripta Mater.* 82 (2014) 9-12.
315. M. Battabyal, P. Spatig, B.S. Murty and N. Baluc, Investigation of microstructure and microhardness of pure W and  $\text{W-2Y}_2\text{O}_3$  materials before and after ion-irradiation, *Int. J. Ref. Metals Hard Mater.*, 46 (2014) 168-172.
316. M. Divya, C.R. Das, S.K. Albert, Sunil Goyal, P. Ganesh, R. Kaul, J. Swaminathan, B.S. Murty, L.M. Kukreja and A.K. Bhaduri, Influence of welding process on Type IV cracking behavior of P91 steel, *Mater. Sci. Eng., A*, 613 (2014) 148-158.
317. M. Preethi, B.S. Murty, S. Ganesh Sundara Raman and R. Natarajan, Control of UFG microstructure in welded carbon steel tubes by cold drawing and annealing, *Trans. Indian Inst. Metals*, 67 (2014) 681-690.
318. M. Mandal, D. Singh, Gouthama, B.S. Murty, S. Sangal and K. Mondal, Porous copper template from partially spark plasma sintered Cu-Zn aggregate via dezincification, *Bull. Mater. Sci.*, 37 (2014) 743-752.
319. R.A. Mondal, B.S. Murty and V.R.K. Murthy, Maxwell-Wagner polarization in grain boundary segregated NiCuZn ferrite, *Curr. Appl. Phys.*, 14 (2014) 1727-1733.
320. N. Krishna Murthy, G.D. Janaki Ram, B.S. Murty, G. Madhusudhan Reddy and T.J.P. Rao, Carbide-free bainitic weld metal: A new concept in welding of armor steels, *Metall. Mater. Trans. B*, 45B (2014) 2327-2337.
321. Niraj Chawake, Linford D. Pinto, Ajeet K. Srivastav, Karthik Akkiraju, B.S. Murty and Ravi Sankar Kottada, On Joule heating during spark plasma sintering of metal powders, *Scripta Mater.*, 93 (2014) 52-55.
322. A. Radhika Devi, J.A. Chelvane, P.K. Prabhakar, B. Venkateswarlu, Mukesh Doble and B.S. Murty, Influence of surfactant variation on effective anisotropy and magnetic properties of mechanically milled magnetite nanoparticles and their biocompatibility, *IEEE Trans. Magnetics*, 50 (2014) 5201004(1-4).
323. C.R. Das, S.K. Albert, K. Laha, J. Swaminathan, S. Ravi, A.K. Bhaduri, B.S. Murty and Peter Mayr, Influence of coincidence site lattice boundary on creep resistance of P91 steel weldments, *Procedia Eng.*, 86 (2014) 80-87.
324. A.S.M. Ang, C.C. Berndt, M.L. Sesso, A. Anupam, S. Praveen, R.S. Kottada and B.S. Murty, Plasma sprayed AlCoCrFeNi and MnCoCrFeNi high entropy alloys: high temperature stability, coating elastic properties and surface roughness, *Int. J. Surf. Eng. Mater. Technol.*, 4(2) (2014) 180-22.
325. S. Vincent, B.S. Murty, M.J. Kramer and J. Bhatt, Micro and nano indentation studies on  $\text{Zr}_{60}\text{Cu}_{10}\text{Al}_{15}\text{Ni}_{15}$  bulk metallic glass, *Mater. Design*, 65 (2015) 98-103.
326. N.S. Karthiselva, B.S. Murty and Srinivasa R. Bakshi, Low temperature synthesis of dense  $\text{TiB}_2$  compacts by reaction spark plasma sintering, *Int. J. Refract. Metals and Hard Mater.*, 48 (2015) 201-210.
327. Ajeet K. Srivastava, Niraj Chawake and B.S. Murty, Grain size dependent non-monotonic lattice parameter variation in nanocrystalline W: The role of non-equilibrium grain boundary structure, *Scripta Mater.*, 98 (2015) 20-23.
328. Andrew Siao Ming Ang, Christopher C. Berndt, Mitchell Sesso, Ameer Anupam, S. Praveen, Ravi Sankar Kottada and B.S. Murty, Plasma sprayed high entropy alloys: Microstructure and properties of AlCoCrFeNi and MnCoCrFeNi, *Metall. Mater. Trans. A*, 46A (2015) 791-800.
329. R.A. Mondal, B.S. Murty and V.R.K. Murthy, Grain size dependent phase transition and superparaelectric behavior of ferroelectric BST, *Physica B*, 461 (2015) 10-16.
330. R.A. Mondal, B.S. Murty and V.R.K. Murthy, Origin of magnetocapacitance in chemically homogeneous and inhomogeneous ferrites, *Phys. Chem. Chem. Phys.*, 17 (2015) 2432-2437.
331. Venkata Ramana Mudinepalli, L. Feng, W.C. Lin and B.S. Murty, Effect of grain size on dielectric and ferroelectric properties of nanostructured  $\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3$  ceramics, *J. Adv. Ceramics*, 4 (2015) 46-53.
332. Venkata Ramana Mudinepalli, N. Ramamanohar Reddy, W.C. Lin, K.V. Siva Kumar and B.S. Murty, Phase transitions of the ferroelectric  $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$  by dielectric and internal friction measurements, *Adv. Mater. Lett.*, 6 (2015) 27-32.
333. Mayur Vaidya, Senthil Armugam, Sanjay Kashyap and B S Murty, Amorphization in equiatomic high entropy alloys, *J. Non-Cryst. Sol.*, 413 (2015) 8-14.
334. Venkata Ramana Mudinepalli, S.H. Song, M. Ravi, J.Q. Li and B.S. Murty, Multiferroic properties of lead-free  $\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_{1.9}\text{O}_{4-\delta}-\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$  composites synthesized by spark plasma sintering, *Ceramic Inter.*, 41 (2015) 6882-6888.
335. Venkata Ramana Mudinepalli, S.H. Song, J.Q. Li and B.S. Murty, Magnetoelectric properties of lead free  $\text{Ni}_{0.93}\text{Co}_{0.02}\text{Mn}_{0.05}\text{Fe}_{1.95}\text{O}_4-\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$  multiferroic composites synthesized by spark plasma sintering, *J. Magnetism and Magnetic Mater.*, 386 (2015) 44-49.
336. S. Vincent, A. Daiwile, S.S. Devi, M.J. Kramer, M.F. Besser, B.S. Murty and Jatin Bhatt, "Bio-

- corrosion and cytotoxicity studies on novel  $Zr_{55}Co_{30}Ti_{15}$  and  $Cu_{60}Zr_{20}Ti_{20}$  metallic glasses, *Metall. Mater. Trans. A*, 46A (2015) 2422-2430.
337. S.L. Pramod, Srinivasa R. Bakshi and B.S. Murty, Al-Based Cast in-situ composites: A review, *J. Mater. Eng. Performance*, 24 (2015) 2185-2207.
  338. S.H. Nandam, B.S. Murty and S. Sankaran, Influence of  $TiB_2$  addition on the precipitation kinetics in Al-7Si-0.3Mg in-situ  $TiB_2$  composites, *Metall. Mater. Trans. A*, 46A (2015) 2844-2849.
  339. K.S.N. Satish Idury, B.S. Murty and Jatin Bhatt, Thermodynamic modeling and composition design for the formation of Zr-Ti-Cu-Ni-Al high entropy bulk metallic glasses, *Intermetallics*, 65 (2015) 42-50.
  340. S.L. Pramod, A.K. Prasada Rao, B.S. Murty and Srinivasa R. Bakshi, Effect of Sc addition on the microstructure and wear properties of A356 alloy and A356- $TiB_2$  in situ composites, *Mater. Design*, 78 (2015) 85-94.
  341. Venkata Ramana Mudinepalli, W.C. Lin, S.H. Song and B.S. Murty, Spark plasma sintering temperature effect on structural, dielectric and ferroelectric properties of  $Ba_{0.9}Sr_{0.1}TiO_3$  nanocrystalline ceramics, *J. Electronic Mater.*, 44 (2015) 4308-4315.
  342. D. Arvindha Babu, B. Majumdar and B.S. Murty, Glass forming ability, structure and soft magnetic properties of rapidly solidified  $Fe_{86}Zr_{7-x}Nb_xB_6Cu_1$  alloy ribbons, *Trans. Indian Inst. Metals*, 68 (2015) 1047-1051.
  343. S. Vincent, K.S.N. Satish Idury, Aditya Gokhale, Joysurya Basu, B.S. Murty and Jatin Bhatt, Icosahedral cluster energetics in  $Zr_{60}Cu_{10}Al_{15}Ni_{15}$  bulk metallic glass and their role on solidification behavior, *Trans. Indian Inst. Metals*, 68 (2015) 1107-1112.
  344. K. Mondal and B.S. Murty, Factors influencing oxidation behavior of metallic glasses, *Trans. Indian Inst. Metals*, 68 (2015) 1151-1154.
  345. R.A. Mondal, B.S. Murty and V.R.K. Murthy, Dielectric, magnetic and enhanced magnetoelectric response in high energy ball milling assisted BST-NZF particulate nanocomposite, *Mater. Chem. Phys.* 167 (2015) 338-346.
  346. N.S. Karthiselva, B.S. Murty and Srinivasa R. Bakshi, Low temperature synthesis of dense and ultrafine grained zirconium diboride compacts by reactive spark plasma sintering, *Scripta Mater.*, 110 (2016) 78-81.
  347. V.R. Mudinepalli, F. Leng, M.P. Reddy, W.C. Lin and B.S. Murty, Structural, dielectric and ferroelectric properties lead-free  $Na_{0.5}Bi_{0.5}TiO_3$  ceramics prepared by spark plasma sintering technique, *Ind. J. Phys.*, 90 (2) (2016) 131-138.
  348. D. Arvind Babu, Bhaskar Majumdar, Rajdeep Sarkar, B.S. Murty and K. Chattopadhyay, On the structural stability of melt spun ribbons of  $Fe_{95-x}Zr_xB_4Cu_1$  ( $x = 7$  and  $9$ ) alloys and correlation with their magnetic properties, *Metall. Mater. Trans. A*, 47A (2016) 560-571.
  349. Ajeet K. Srivastav, Joysurya Basu, Sanjay Kashyap, Niraj Chawake, Devinder Yadav and B.S. Murty, Crystallographic-shear-phase-driven  $W_{18}O_{49}$  nanowires growth on nanocrystalline W surfaces, *Scripta Mater.*, 115 (2016) 28-32.
  350. C. Chattopadhyay and B.S. Murty, Kinetic modification of the 'confusion principle' for metallic glass formation, *Scripta Mater.*, 116 (2016) 7-10.
  351. C. Chattopadhyay, K.S.N. Satish Idury, Jatin Bhatt, K. Mondal and B.S. Murty, Critical evaluation of glass forming ability criteria, *Mater. Sci. Tech.*, 32 (2016) 380-400.
  352. V.R. Mudinepalli, F. Leng, W.C. Lin, and B.S. Murty, Preparation and characterization of fine grained barium lead titanate ceramics by spark plasma sintering technique, *Mater. Res. Innovations*, 20 (2016) 81-85.
  353. Venkata Ramana Mudinepalli, Feng Leng, W.C. Lin and B.S. Murty, Conventional and spark plasma sintered  $Ba_{0.8}Pb_{0.2}TiO_3$  nano ceramics: structural, dielectric and ferroelectric properties, *Metall. Mater. Trans. A*, 47A (2016) 2579-2586.
  354. K. Murugan, J. Joardar, A.S. Gandhi, B.S. Murty and P.H. Borse, Photo-induced monomer/dimer kinetics in methylene blue degradation over doped and phase controlled nano- $TiO_2$  film, *RSC Adv.*, 6 (2016) 43563-43573.
  355. M. Vaidya, S. Trubel, B.S. Murty, G. Wilde and S.V Divinski, Ni tracer diffusion in CoCrFeNi and CoCrFeMnNi high entropy alloys, *J. Alloys Compd.*, 668 (2016) 994-1001.
  356. K.S.N. Satish Idury, B.S. Murty and Jatin Bhatt, Identifying non-equiatomic high entropy bulk metallic glass formers through thermodynamic approach: A theoretical perspective, *J. Non-Cryst. Sol.*, 450 (2016) 164-173.
  357. S.L. Pramod, Ravikiran, A.K. Prasada Rao, B.S. Murty and Srinivasa R. Bakshi, Effect of Sc addition and T6 aging treatment on the microstructure modification and mechanical properties of A356 alloy, *Mater. Sci. Eng., A*, 674 (2016) 438-450.
  358. Lavanya Raman, Karthick Gothandapani and B.S. Murty, Austenitic oxide dispersion strengthened steels: A review, *Defence Sci. J.*, 66 (2016) 316-322.
  359. Olu Emmanuel Femi, Karthik Akkiraju, B.S Murty, N. Ravishankar, K. Chattopadhyay, Effect of processing route on the bipolar contribution to the thermoelectric properties of n-type eutectic  $Bi_{22.5}Sb_{7.5}Te_{70}$  alloy, *J. Alloys Compd.*, 682 (2016) 791-798.

360. U. Athul Atturan, Sree Harsha Nandam, B.S. Murty and S. Sankaran, Processing and characterization of *in-situ* TiB<sub>2</sub> stabilised closed cell Al alloy composite foams, *Mater. Design*, 101 (2016) 245-253.
361. V. Udhayabanu, K.R. Ravi and B.S. Murty, Structure-property correlation in Fe-Al<sub>2</sub>O<sub>3</sub> in-situ nanocomposite synthesized by high energy ball milling and spark plasma sintering, *Metall. Mater. Trans. A*, 47 (2016) 5223-5233.
362. K.S.N. Satish Idury, B.S. Murty and Jatin Bhatt, Interpreting room temperature deformation of Zr<sub>67</sub>Cu<sub>33</sub> metallic glass through Voronoi cluster dynamics, *J. Non-Cryst Sol.*, 454 (2016) 59-69.
363. U. Athul Atturan, Sree Harsha Nandam, B.S. Murty and S. Sankaran, Deformation behaviour of in-situ TiB<sub>2</sub> reinforced A357 aluminium alloy composite foams under compressive and impact loading, *Mater. Sci. Eng., A*, 684 (2017) 178-185.
364. Mayur Vaidya, Anil Prasad, Abhinav Rarakh and B.S. Murty, Influence of sequence of elemental addition on phase evolution in nanocrystalline AlCoCrFeNi: Novel approach to alloy synthesis using mechanical alloying, *Mater. Design*, 126 (2017) 37-46.
365. N.S. Karthiselva, Sanjay Kashyap, Devinder Yadav, B.S. Murty, Srinivasa R. Bakshi, Densification mechanisms during reactive spark plasma sintering of Titanium diboride and Zirconium diboride, *Philos. Mag.*, 97 (2017) 1588-1609.
366. Anirudha Karati and B.S. Murty, Synthesis of nanocrystalline TiNiSn by mechanically activated process, *Mater. Lett.*, 205 (2017) 114-117.
367. Joysurya Basu, S. Vincent, B.S. Murty, M.J. Kramer and Jatin Bhatt, Role of polyhedral order in glass to crystal transition dynamics in Zr<sub>60</sub>Cu<sub>10</sub>Al<sub>15</sub>Ni<sub>15</sub> glass forming alloy, *J. Non-Cryst Sol.*, 471 (2017) 256-263.
368. K. Akkiraju, S. Kashyap, Ajeet K. Srivastav, Niraj Chawake, L. Bichler and B.S. Murty, Novel coalescence-driven grain-growth mechanism during annealing/spark plasma sintering of NiO nanocrystals, *J. Eur. Cer. Soc.*, 37 (2017) 4973-4977.
369. B. Bhushan, B.S. Murty and K. Mondal, A two-step method for synthesis of micron sized nanoporous silver powder and ZnO nanoparticles, *Adv. Powder Tech.*, 28 (2017) 2532-2541.
370. M. Vaidya, K.G. Pradeep, B.S. Murty, G. Wilde and S.V. Divinski, Radioactive isotopes reveal a non-sluggish kinetics of grain boundary diffusion in high entropy alloys, *Scientific Reports*, 7 (2017) 12293.
371. K. Guruvadyathri, K.C. Hari Kumar, J.W. Yeh and B.S. Murty, Topologically close-packed phase formation in high entropy alloys: A review of calphad and experimental results, *JOM*, 69 (2017) 2113-2124.
372. Ch. Anjaneyulu and B.S. Murty, Soft magnetic properties of Fe-based bulk metallic glass system containing niobium and copper, *J. Metall. Mater. Sci.*, 59 (2017) 103-110.
373. M. Vaidya, K.G. Pradeep, B.S. Murty, G. Wilde, S.V. Divinski, Bulk tracer diffusion in CoCrFeNi and CoCrFeMnNi high entropy alloys, *Acta Mater.* 146 (2018) 211-224.
374. M. Srinivas, Archana Paradkar, B.S. Murty and Bhaskar Majumdar, Processing of [(Fe<sub>0.5</sub>Co<sub>0.5</sub>)<sub>0.75</sub>B<sub>0.2</sub>Si<sub>0.05</sub>]<sub>96</sub> bulk metallic glass alloy by Cu mould casting and spark plasma sintering, *Trans. Indian Inst. Met.*, 71 (2018) 309-317.
375. Raghavendra Kulkarni, B.S. Murty and V. Srinivas, Study of microstructure and magnetic properties of AlNiCo(CuFe) high entropy alloy, *J. Alloys and Compd.*, 746 (2018) 194-199.
376. Jayakrishnan Nampoothiri. I. Balasundar, Baleddev Raj, B.S. Murty, Ravi Renga, Porosity Alleviation and Mechanical Property Improvement of Strontium modified Al 356 alloy by Ultrasonic treatment, *Mater. Sci. Eng. A* 724 (2018) 586-593.
377. Sanyukta Ghosh, Anuj Bisht, Anirudha Karati, Gerda Rogl, Peter Rogl, B.S. Murty, Satyam Suwas, Ramesh Mallik, Thermoelectric properties of Co<sub>4</sub>Sb<sub>12</sub> with Bi<sub>2</sub>Te<sub>3</sub> nano-inclusions, *J. Phys.: Condens. Matter*. 30 (2018) 095701.
378. N.S. Karthiselva, S. Sankaran, V. Subramanya Sarma, B.S. Murty and Srinivasa R. Bakshi, Graphene nanoplatelets induce crystallographic texturing during reactive spark plasma sintering of titanium diboride, *Carbon* 133 (2018) 323-334.
379. C. Chattopadhyay, Anil Prasad and B.S. Murty, Phase Prediction in High Entropy Alloys – A Kinetic Approach, *Acta Mater.* 153 (2018) 214-225.
380. B. Bhushan, B.S. Murty and K. Mondal, Dealloying kinetics and mechanism of porosity evolution in mechanically alloyed Ag<sub>25</sub>Zn<sub>75</sub> powder particles, *Corr. Sci.* 139 (2018) 155-162
381. B. Praveenkumar, M. Balasubramanian, B.S. Murty and K.M. Rajan, Infrared and Structural studies of micro- and nano-crystalline Ta doped Lead Zirconate Titanate Ceramics, *Def. Sci. J.* 68 (2018) 412-416.
382. K. Guruvadyathri, B.S. Murty, J.W. Yeh, K.C. Hari Kumar, Gibbs Energy-Composition Plots as a Tool for High Entropy Alloy Design, *J. Alloys Compd.*, 768 (2018) 358-367.
383. Mayur Vaidya, G. Mohan Muralikrishna, S.V. Divinski, B.S. Murty, Experimental assessment of the thermodynamic factor for diffusion in CoCrFeNi and CoCrFeMnNi high entropy alloys, *Scripta Mater.*, 157 (2018) 81-85.

384. Shaik Adil, Anirudha Karati, B.S. Murty, Mechanochemical synthesis of nanocrystalline aluminium boride (AlB<sub>12</sub>), *Ceramics Int.*, 44 (2018) 20105-20110.
385. Anirudha Karati, M. Vaidya and B.S. Murty, Attempts to synthesize bulk and nanocrystalline AlSi by vacuum arc melting and mechanical alloying, *J. Mater. Eng. Performance* 27 (2018) 6196-6205.
386. Alexander Jalbuena, Jared Logier, J. C. Nava, Vilupanur Ravi, Shaik Adil and B.S Murty, Corrosion of High Entropy Alloys in Molten Salts, *NACE – Int. Corr. Conf. Series* (2018) 11664.
387. M. Vaidya, Anirudha Karati, A. Marshal, K.G. Pradeep and B.S. Murty, Phase evolution and stability of nanocrystalline CoCrFeNi and CoCrFeMnNi high entropy alloys, *J. Alloys Compd.* 770 (2019) 1004-1015.
388. Ajeet K. Srivastav, Niraj Chawake, Devinder Yadav, N.S. Karthiselva, B.S. Murty, Localized pore evolution assisted densification during spark plasma sintering of nanocrystalline W-5wt.%Mo, *Scripta Mater.* 159 (2019) 41-45.
389. M. Vaidya, K. Guruvidyathri, B.S. Murty, Phase formation and thermal stability of CoCrFeNi and CoCrFeMnNi equiatomic high entropy alloys, *J. Alloys Compd.* 774 (2019) 856-864.
390. S.L. Pramod, Ravikiran, A.K. Prasada Rao, B.S. Murty, Srinivasa R. Bakshi, Microstructure and mechanical properties of as-cast and T6 treated Sc modified A356-5TiB<sub>2</sub> *in-situ* composite, *Mater. Sci. Eng. A* 739 (2019) 383-394.
391. Anirudha Karati, K. Guruvidyathri, V.S. Hariharan, B.S. Murty, Thermal stability of AlCoFeMnNi high-entropy alloy, *Scripta Mater.* 162 (2019) 465-467.
392. B. Bhushan, B.S. Murty and K. Mondal, A New approach for synthesis of ZnO nanorod flowerets and subsequent pure free-standing ZnO nanorods, *Adv. Powder Technol.* 30 (2019) 30-41.
393. M. Vaidya, G. Mohan Muralikrishna, B.S. Murty High entropy alloys by mechanical alloying: A review, *J. Mater. Res.* 34 (2019) 664-686.
394. Lavanya Raman, K. Guruvidyathri, Geeta Kumari, S.V.S. Narayana Murty, Ravi Sankar Kottada and B.S. Murty, Phase evolution of refractory high entropy alloy CrMoNbTiW during mechanical alloying and spark plasma sintering, *J. Mater. Res.* 34 (2019) 756-766.
395. Aamey Anupama, S. Kumar, Naveen M. Chavan, B.S. Murty, Ravi Sankar Kottada, First Report on Cold Sprayed AlCoCrFeNi HEA and its Isothermal Oxidation, *J. Mater. Res.* 34 (2019) 796-806.
396. M. Vaidya, Aamey Anupam, J. Vijay Bharadwaj, Chandan Srivastava, B.S Murty, Grain growth kinetics in CoCrFeNi and CoCrFeMnNi high entropy alloys processed by spark plasma sintering, *J. Alloys Compd.* 791 (2019) 1114-1121.
397. Anirudha Karati, M. Nagini, Rajashekhara Shabadi, K.G. Pradeep, B.S. Murty, U.V. Varadaraju, Ti<sub>2</sub>NiCoSnSb - a new half-Heusler type high-entropy alloy showing simultaneous increase in Seebeck coefficient and electrical conductivity for thermoelectric applications, *Sci. Rep.* 9 (2019) 5331.
398. Shaik Adil and B.S. Murty, Effect of milling on the oxidation kinetics of aluminium + boron mixture and nanocrystalline aluminium boride (AlB<sub>12</sub>), *Thermochimica Acta* 678 (2019) 178306.
399. B. Bhushan, P.K. Katiyar, B.S. Murty and K. Mondal, Synthesis of Hydrophobic Ni-VN Alloy Powder by Ball Milling, *Adv. Powder Technol.* 30 (2019) 1600-1610.
400. Tippireddy, Sahil, D.S. Prem Kumar, Karati Anirudha, Anbalagan Ramakrishnan, P. Malar, Chen Kuei-Hsien, B.S Murty, Mallik Ramesh Chandra, The Effect of Sn Substitution on The Thermoelectric Properties of Synthetic Tetrahedrite, *ACS Appl. Mater. Interf.* 11 (2019) 21686-21696.
401. Anirudha Karati, Shriparna Mukherjee, Ramesh Chandra Mallik, Rajashekhara Shabadi, B.S. Murty, U.V. Varadaraju, Simultaneous increase in thermopower and electrical conductivity through Ta-doping and nanostructuring in half-Heusler TiNiSn alloys, *Materialia*. 7 (2019) 100410.
402. Rahul John, Anirudha Karati, Mohan Muralikrishna Garlapati, Mayur Vaidya, Rahul Bhattacharya, Daniel Fabijanic, B.S. Murty, Influence of mechanically activated annealing on phase evolution in Al<sub>0.3</sub>CoCrFeNi high entropy alloy *J. Mater. Sci.* (2019, in Press).

#### **Refereed Proceedings of National and International Conferences**

403. B.S. Murty, S. Ranganathan and M. Mohan Rao, Thermodynamics of solid state amorphization by mechanical alloying, In *Metastable Microstructures-Principles, Design and Applications*, (Eds.) D. Banerjee and L.A. Jacobson, Oxford & IBH Publishing Co., New Delhi, 1993, pp. 239-246.
404. S. Ranganathan, B.S. Murty, R. Nagarajan, K. Chattopadhyay, Nanostructured Ti-Ni alloys: A comparison of processing routes, In *Processing and Properties of Nanocrystalline Materials*, (Eds.) C. Suryanarayana, J. Singh and F.H. Froes, TMS, Warrendale, PA, 1996, pp. 37-48.
405. J. Joardar, S.K. Pabi and B.S. Murty, On the energy criteria in the production of disordered NiAl by mechanical alloying, in *Proc. of Int. Conf. on Recent Advances in Metallurgical Processes*, Eds. D.H. Sastry et al., New Age Int. Publ., 1997, pp. 647-652.
406. B.S. Murty, J. Joardar and S.K. Pabi, Ordering characteristics of nickel aluminides synthesized by mechanical alloying, *Proc. of 9<sup>th</sup> Int. Conf. On Rapidly Quenched and Metastable Materials*, Supplement, Eds. P. Duhaj, P. Mrafko and P. Svec, Elsevier, 1997, pp. 41-44.



407. M. Chakraborty, B.S. Murty and K.V.S. Prasad, Role of manufacturing process parameters on the grain refining characteristics of Al-5Ti-1B master alloys, Proc. of Int. Conf. on Aluminium (INCAL'98), 1998, pp. 291-298.
408. B.S. Murty, A. Arjuna Rao, S.A. Kori and M. Chakraborty, Poisoning phenomenon during the grain refinement of Al-X (X=Cr, Zr, Si) alloys by Al-5Ti-1B master alloy, Proc. of Int. Conf. on Aluminium (INCAL'98), 1998, pp. 299-306.
409. M. Chakraborty, S.A. Kori and B.S. Murty, Development of indigenous Al-Ti-B master alloys for the grain refinement of Al and its alloys, Proc. of 4<sup>th</sup> ALUCAST'98, 1998, pp. 1-20.
410. M. Chakraborty, S.A. Kori and B. S. Murty, Grain refinement of aluminium and its alloys-Retrospect and prospects, Proc. of National Seminar on Recent Advances in Metal Casting and Welding Technology, Varanasi, 1998, pp. 18-30.
411. B.S. Murty, S.A. Kori and M. Chakraborty, On the indigenous efforts towards the development of fast acting and long lasting grain refiners for Al and its alloys, Proc. of Sixth Asian Foundry Congress, Eds. A.K. Chakrabarti et al., 1999, pp. 231-243.
412. S.K. Thakur, D. Venketeshwara Rao, B.S. Murty, B.K. Dhindaw and S.P. Singh, Effect of surface coating of SiC<sub>p</sub> on infiltration kinetics by Al melt, Proc. of Sixth Asian Foundry Congress, Eds. A.K. Chakrabarti et al., 1999, pp. 140-153.
413. B.S. Murty, J. Joardar, M.K. Dutta and S.K. Pabi, Phase transformations induced in nanocrystalline materials during mechanical alloying, Proc. Int. Conf. on Solid State Phase Transformations (PTM99), Eds. M. Koiwa, K. Otsuka and T. Miyazaki, JIM, Tokyo, 1999, pp. 1259-1262.
414. M. Chakraborty, S.A. Kori, T. Mukherjee and B.S. Murty, Grain refinement and modification of Al-Si alloys, Proc. of 5<sup>th</sup> ALUCAST'99, 1999, pp. 2-11.
415. M. Chakraborty, S.A. Kori and B.S. Murty, Grain refinement of Al and its alloys-Retrospect and Prospects, Proc. of Recent Advances in Metal Casting and Welding Technology (RAMCWT-98), 1999, pp. 18-30.
416. J. Joardar, B.S. Murty and S.K. Pabi, On the evolution of nanocrystalline phases by mechanical alloying, Advances in materials science and processes: A compilation of invited lectures, Eds. S.C. Koria and S. Sangal, Indian Institute of Metals, Calcutta, 1999, pp. 134-151.
417. K. Venkateswarlu, B.S. Murty, P. Ramachandra Rao and M. Chakraborty, Effect of hot rolling and heat treatment on the grain refining efficiency of Al-Ti and Al-Ti-B master alloys, Proc. Inter. Seminar on Non-ferrous Metals and Materials, Ed. D. M. Chakrabarti, 2000, pp. 193-198.
418. S.A. Kori, B.S. Murty and M. Chakraborty, Microstructural evolution of eutectic Al-Si alloys, Proc. of Int. Conf. on Solidification Science and Processing, Eds. B.K. Dhindaw, B.S. Murty and S. Sen, Oxford & IBH, New Delhi, and, 2001, pp. 109-121.
419. N.K. Jonnalagadda, M.P. Yallasiri, S.A. Kori, B.S. Murty and M. Chakraborty, Synthesis and characterization of in-situ Al-TiB<sub>2</sub> metal matrix composites, Proc. of Int. Conf. on Solidification Science and Processing, Eds. B.K. Dhindaw, B.S. Murty and S. Sen, Oxford & IBH, New Delhi, 2001, pp. 333-340.
420. B.S. Murty, R. Maity and M. Chakraborty, Development of in-situ Al-TiB<sub>2</sub> composites, Proc. of Int. Conf. on Advances in Materials and Materials Processing, Eds. N. Chakraborti and U.K. Chatterjee, Tata Mc-Graw Hill, 2002, New Delhi, pp. 113-117.
421. S.A. Kori, T. Chandrasekharaiah, B.S. Murty and M. Chakraborty, Sliding wear behavior of grain refined and modified hypoeutectic Al-Si alloys, Proc. of Int. Conf. on Advances in Materials and Materials Processing, Eds. N. Chakraborti and U.K. Chatterjee, Tata Mc-Graw Hill, New Delhi, 2002, pp. 305-310.
422. S.A. Kori, V. Auradi, B.S. Murty and M. Chakraborty, Studies on grain refinement and modification of LM-6 Alloy, Proc. Conf. on Light Metals and Composites for Strategic and Societal Needs (LMCSSN), Trivandrum, 2002, pp. 171-177.
423. S.A. Kori, T. M. Chandrashekharaiah, B.S. Murty and M. Chakraborty, Effect of grain refinement and modification on wear properties of LM-25 Alloy, Proc. Conf. on Light-Metals and Composites for Strategic and Societal Needs (LMCSSN), Trivandrum, 2002, pp. 178-182.
424. M.K. Dutta, S.K. Pabi and B.S. Murty, Phase formation and thermal stability of mechanically alloyed Ni-Si system, Proc. of Int. Conf. on Advances in Materials and Materials Processing, Eds. N. Chakraborti and U.K. Chatterjee, Tata Mc-Graw Hill, 2002, New Delhi, pp. 396-400.
425. B.S. Murty, D.H. Ping and K. Hono, Quasicrystal forming ability of Zr based alloys, Proc. Indo-Malaysian Joint Workshop (WAM-2002), Ed. L.C. Pathak et al., Allied Publishers, 2003, pp. 40-54.
426. S.A. Kori, B.S. Murty and M. Chakraborty, Assessment of grain refinement and modification of hypoeutectic Al-Si alloys by computer aided cooling curve analysis, Proc. of Int. Conf. on Al (INCAL'03) 2003, 1, pp. 229-239.
427. A.K. Prasada Rao, K. Das, B.S. Murty and M. Chakraborty, Effect of Cu on the grain refinement and modification of Al-7Si alloy, Proc. of 51<sup>st</sup> Indian Foundry Congress, 2003, pp. 191-196.
428. A. Mandal, D.S. Shekhawat, M. Chakraborty and B.S. Murty, Synthesis and characterization of in-situ Al-TiB<sub>2</sub> and Al-TiC composites, Proc. of 51<sup>st</sup> Indian Foundry Congress, 2003, pp. 197-201.

429. Jatin Bhatt, S.S. Nayak, S.K.S. Parashar and B.S. Murty, Novel materials by mechanical alloying, Proc. of Conf. on Futuristic Materials, Ed. B.B. Jha, R.K. Galgali and V.N. Mishra, Allied Publishers, Kolkata, 2004, pp. 936-944.
430. B.S. Murty, Jatin Bhatt, S.S. Nayak, S.K.S. Parashar and S.K. Pabi, Nanocrystalline materials synthesized by mechanical alloying (Key Note Lecture), Proc. Int. Conf. on Nanomaterials Synthesis, Characterization and Application, Tata McGraw Hill, 2004, pp.161-170.
431. A.K. Prasada Rao, B.S. Murty, K. Das and M. Chakraborty, Effect of grain refinement and modification on the dry sliding load carrying capacity of Al-7Si alloy, Proc. 1<sup>st</sup> Int. Conf. on Advanced Tribology-2004 (ICAT2004), Singapore, 2004, pp. B37-38.
432. S.A. Kori, V. Auradi, B. S. Murty and M. Chakraborty, Poisoning and fading mechanism of grain refinement in Al-7Si alloy, Proc. of 3<sup>rd</sup> Inter. Nat. Conf. On Advanced Materials Processing (ICAMP-3), Melbourne, Australia, 2004, pp. 387-393.
433. G.V.S. Sastry, S. Sudhir, Ankur Gupta and B.S. Murty, Milling of oxide blends-a possible clue to the mechanism of mechanical alloying, Proceedings of Advanced X-ray Techniques in Research and Industry (XTRI-03), Ed. A.K. Singh, Capital Publ. Co., New Delhi, 2005, pp. 470-475.
434. B.S. Murty, M.K. Dutta and S.K. Pabi, Structure and stability of nanocrystalline materials, In Frontiers in Materials Science, Ed. Baldev Raj and K. Bhanusankara Rao, Universities Press, Bangalore, 2005, pp. 23-45.
435. P.K. Ray, Jatin Bhatt and B.S. Murty, An atomistic approach for optimization of glass forming compositions: the case of Zr-Cu-Al ternary alloys, Proc. Emerging Trends in Nano Technology and Innovations in Design and Manufacturing, Rourkela, 2006, pp. 340-347.
436. P.K. Ray, P.K. Ray, V. Sundar Raja, B.S. Murty and K. Chattopadhyay, Modelling and development of a horizontal vibratory rod mill for mechanical alloying: A first report, Proc. Emerging Trends in Nano Technology and Innovations in Design and Manufacturing, Rourkela, 2006, pp. 321-332.
437. C.R. Das, S.K. Albert, A.K. Bhaduri, G. Srinivasan and B.S. Murty, Effect of base metal microstructures on deformation of modified 9Cr-1Mo steel weld joints under tensile loading, Proc. of Int. Symp. of Research Scholars on Metallurgy, Mater. Sci. and Eng., Chennai, 2006, pp. 532-537
438. Sheela Singh, M.M. Godkhindi, B.S. Murty and R.V. Krishnarao, Milling map for mechanical activated in-situ synthesis of MoSi<sub>2</sub> from (Mo+Si<sub>3</sub>N<sub>4</sub>) powder mixtures, in powder metallurgy processing for automotive electrical, electronic and engineering industry, Proceedings of International Conference PM05), edited by P. Ramakrishnan, New Age International Publications, New Delhi, 2007, pp. 293-303.
439. B.S. Murty, Nanocrystalline materials by mechanical alloying and rapid solidification processing, Frontiers in Design of Materials, Ed. Baldev Raj, S. Ranganathan, S.L. Mannan, K. Bhanu Sankara Rao, M.D. Mathew, P. Shankar, Universities Press, Bangalore, 2007, pp. 299-311.
440. K. Mondal, U.K. Chatterjee and B.S. Murty, Corrosion and oxidation behavior of melt spun Zr<sub>55</sub>Ti<sub>25</sub>Ni<sub>20</sub> alloy, Proc. Int. Conf. on Advanced Materials Design and Development (ICAMDD-2006), Ed. M. Chakraborty, D.L. McDowell, S. Ghosh, F. Mistree and D. Bhattacharya, Elsevier, 2007, pp. 355-362.
441. M. Chakraborty, D.S. Shekhawat, A. Mandal, R. Maiti, U.K. Chatterjee and B.S. Murty, Synthesis and characterization of in-situ Al-TiB<sub>2</sub> metal matrix composites, Proc. Int. Conf. on Advanced Materials Design and Development (ICAMDD-2006), Ed. M. Chakraborty, D.L. McDowell, S. Ghosh, F. Mistree and D. Bhattacharya, Elsevier, 2007, pp. 264-276.
442. S. Kumar, V. Subramanya Sarma and B.S. Murty, Influence of *in-situ* TiB<sub>2</sub> particles on the microstructural, mechanical and abrasive wear behavior of A356 alloy, Proc. of Int. Conf. on Material Science and Technology (MS&T-2007), pp. 465-471.
443. S. Kumar and B.S. Murty, Al-4Cu based in-situ composites: synthesis and properties, Proc. of ALUCAST, 2007, pp. 75-81.
444. T. Shanmugasundaram, B.S. Murty and V. Subramanya Sarma, Ultrafine grained Al-Cu alloys by cryorolling, Proc. Int. Conf. on Advanced Materials and Composites, 2007, pp. 577-581.
445. A. Chattopadhyay, V. Subramanya Sarma, B.S. Murty, D. Bhattacharjee and M. Dutta, A comparative study on Zn coatibility of hot rolled coils with cold rolled coils, Galvatech07, pp. 291-296.
446. N. Babcsan, G.S. Vinod Kumar, B.S. Murty, F. Garcia Moreno and J. Banhart, New foam stabilising additive for aluminum, Proc. of 5<sup>th</sup> Int. Conf. on Porous Metals and metallic Foams (MetFoam 2007), 2008, 27-30.
447. G.S. Vinod Kumar, F. Garcia Moreno, J. Banhart, N. Babcsan and B.S. Murty, Al based metallic films, Proc. of 5<sup>th</sup> Int. Conf. on Porous Metals and metallic Foams (MetFoam 2007), 2008, 71-74.
448. B.S. Murty and S. Kumar, Aluminium based in-situ composites, Proc. of the 68<sup>th</sup> World Foundry Congress (WEC 2008), pp. 55-62.
449. S.K.S. Parashar, K. Parashar, R.N.P. Choudhary and B.S. Murty, Limiting behavior of AC conductivity in nanoferroelectrics, Proc. Conf. on Recent Advances in Innovative Materials, Ed. A.S. Singha, S. Chand, K.K. Sharma and S.K.S. Parashar, Excel Publishers, New Delhi, 2008, pp. 110-113.

450. C.R. Das, M. Divya, S.K. Albert, A.K. Bhaduri and B.S. Murty, Effect of prior austenite grain size and boron on microstructure and hardness distribution in modified 9Cr-1Mo steel weldment, National Welding Seminar, Mumbai, 2008, pp. 10.1-10.5.
451. Jatin Bhatt and B.S. Murty, Nanoindentation study on  $Zr_{65}Cu_{17.5}Ni_{10}Al_{7.5}$  metallic glasses for MEMS application, Proc. Fourth ISSS National Conference on Microsystems, Smart Materials, Structures, ISSS-2010, pp. 1-4.
452. M. Divya, C.R. Das, S.K. Albert, A.K. Bhaduri and B.S. Murty, Effect of boron on microstructure of intercritically heat affected zone (ICHAZ) treated modified 9CR-1MO steel weldments, Heat Treatment and Surface Engineering-Proceedings of Heat Treatment and Surface Engineering, HTSE 2013, pp. 511-516.
453. N.S. Karthiselva, B.S. Murty and Srinivasa Rao Bakshi, Densification and mechanical properties of  $ZrB_2$ - $TiB_2$  ultra high temperature ceramic composites, Proc. of 38th Int'l Conf & Expo on Advanced Ceramics & Composites (ICACC 2014), Ceramic Engineering and Science Proceedings, 2015, 35 (8), pp. 275-285.
454. A.R. Devi, J.A. Chelvane, P.K. Prabhakar, B. Venkateswarlu, M. Doble and B.S. Murty, Influence of surfactant variation on effective anisotropy and magnetic properties of mechanically milled magnetite nanoparticles and their biocompatibility, IEEE Transactions on Magnetics, 2014, 50 (11), art. no. 6971446.
455. A.S.M. Ang, C.C. Berndt, M.L. Sesso, A. Anupam, P.S. Ravi Sankar Kottada and B.S. Murty, Comparison of plasma sprayed high entropy alloys with conventional bond coat materials, Proceedings of the International Thermal Spray Conference, (2015) 1, pp. 27-32.

### **Manuscripts under Review**

456. Sudipta Pramanik, Ajeet K. Srivastav, Bobu Manuel Jolly, Niraj Chawake, B.S. Murty, Effect of Re on microstructural evolution and densification kinetics during spark plasma sintering of nanocrystalline W, Adv. Powder Technol. (Revised on March 20, 2019).
457. D. Arvindha Babu, B. Majumdar, R. Sarkar and B.S. Murty, Phase stability of rapidly solidified  $(Fe_{1-x}Ni_x)_{88}Zr_7B_4Cu_1$  ribbons, Metall. Mater. Trans A. (Submitted on March 30, 2019)
458. Ashok Meghwal, Ameey Anupam, Vladimir Luzin, B.S. Murty, Christopher C Berndt, Ravi S Kottada, Andrew Ang, Plasma sprayed AlCoCrFeNi high entropy alloys: Microstructure-mechanical properties mapping and overall residual stress profiling, JALCOM (Submitted on May 20, 2019)
459. Anuj Khond, Chinmoy Chattopadhyay, B.S. Murty, Bhaskar Majumdar, Ajeet K Srivastav, Jatin Bhatt, Kinetic approach to determine the characteristic temperatures in Hf-based metallic glasses, J. Non-Cryst. Sol. (submitted on June 11, 2019).
460. T. Subashini, B. Renganathan, A.R. Ganesan, B.S. Murty, T. Prakash, Grain size effect on benzene sensing behavior of optical fiber clad modified with  $V_2O_5$  nanocrystals, Optical Fiber Technol. (submitted on June 21, 2019)
461. Shaik Adil, M.V. Suraj, Lava Kumar Pillari, M. Nagini, Soumya Sridar, K.G. Pradeep and B.S. Murty, Role of Fe in  $L_{12}A_3B$  ordered intermetallic phase in Al-Co-Cr-Ni-Ti high-entropy alloy and its influence on the microstructure Acta Mater. (submitted on July 18, 2019).
462. K. Guruvidyathri, J.W. Yeh, B.S. Murty, Sigma phase stability in Fe-free CoCrMnNi, CoCrCuMnNi and AlCoCrMnNi high-entropy alloys, Intermetallics (submitted on July 22, 2019)
463. Tripta Parida, Anirudha Karati, B.S. Murty, G. Markandeyulu Synthesis of a novel class of rare-earth and transition metal-based high-entropy oxides with spinel structure, Scripta Mater. (submitted on July 25, 2019)
464. Ameey Anupam, Andrew Ang, Ashok Meghwal, B.S. Murty, C.C. Berndt, Ravi S Kottada, Sanjay Kashyap, Understanding the Microstructural Evolution of High Entropy Alloy Coatings Manufactured by Atmospheric Plasma Spray Processing, Appl. Surf. Sci. (submitted on August 8, 2019)
465. M. Nagini, K.G. Pradeep, R. Vijay, A.V. Reddy, B.S. Murty and G. Sundararajan, A Combined Electron Microscopy, Atom Probe Tomography and Small Angle X-ray Scattering Study of Oxide Dispersion Strengthened 18Cr Ferritic Steel, J. Alloys Compd. (submitted on August 15, 2019).
466. Anuj Khond, Shaik Adil, K Guruvidyathri, B. S Murty, Bhaskar Majumdar, Ajeet K Srivastav, Jatin Bhatt Kinetics and phase formation during crystallization of  $Hf_{64}Cu_{18}Ni_{18}$  metallic glass, J. Non-Cryst. Sol. (submitted on August 16, 2019).
467. Jung Soo Lee, Hyun Seok Oh, Wan Kim, Chae Woo Ryu, Jin Yeon Kim, Hye Jung Chang, J.L. Gu, Ke-Fu Yao, B.S. Murty, Eun Soo Park, Anomalous behavior of glass-forming ability and mechanical response in a series of equiatomic binary to denary metallic glasses, Materialia (submitted on August 17, 2019).