List of publications

1. Ummen Sabu, C N Shyam Kumar, G Logesh, Mohammed Rashad, Georgian Melinte, Anand Joy, Christian Kubel and M Balasubramanian, On the formation of α-alumina single crystal platelets through eggshell membrane bio-templating, ***Scripta Materialia*** (Accepted).
2. Mohammed Rashad, G. Logesh, Ummen Sabu, and M. Balasubramanian, A novel monolithic mullite microfiltration membrane for oil-in-water emulsion separation, **Journal of Membrane Science** (In Print)
3. Ummen Sabu, Niharika Tripathi, G. Logesh, Mohammed Rashad, Anand Joy, and M. Balasubramanian, Development of biomorphic C-ZnO with in situ formation of ZnS using eggshell membrane as bio-template, ***Ceramics International,* 46** (October 2020) 22869-22875.
4. Mohammed Rashad, Ummen Sabu, G. Logesh, C. Srishilan, Mangesh Lodhe, Anand Joy and M. Balasubramanian, Mullite phase evolution in clay with hydrated or anhydrous AlF_3, ***Journal of the European Ceramic Society,* 40** (December 2020) 5974-5983.
5. Mohammed Rashad, G. Logesh, Ummen Sabu, and M. Balasubramanian, Development of porous mullite and mullite-Al_2O_3 composite for microfiltration membrane applications, ***Separation and Purification Technology,* 219** (July 2019) 74-81.
6. Ummen Sabu, Mohammed Rashad, G. Logesh, Anand Joy and M. Balasubramanian, Microwave assisted synthesis of biomorphic hydroxyapatite, ***Ceramics International,* 45** (April 2019) 6718-6722.
7. Mohammed Rashad and M. Balasubramanian, A quantitative analysis of in-situ gases on the properties of porous mullite developed from clay and $AlF_3.3H_2O$, ***Ceramics International,* 45** (January 2019) 1420–1423.
8. G. Logesh, Mohammed Rashad, Mangesh Lodhe, Ummen Sabu, Andrews Joseph, K. C. James Raju, and M. Balasubramanian, Mechanical and dielectrical properties of carbon fiber reinforced reaction bonded silicon nitride composites, ***Journal of Alloys and Compounds*, 767** (October 2018) 1083-1093.
9. 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, ***Defence Science Journal*** (In Print).
10. Mohammed Rashad and M. Balasubramanian, Characteristics of porous mullite developed from clay and $AlF_3.3H_2O$, ***Journal of the European Ceramic Society,* 38** (August 2018) 3673-3680.
11. Mangesh Lodhe, G. Logesh, M. Balasubramanian, Twin induced fracture toughness in SiC_W/SiC composites processed by spark plasma sintering, ***Materials Science & Engineering A*, 730** (July 2018) 280-283.

12. Ummen Sabu, Mohammed Rashad, G. Logesh, Koushi Kumar, Mangesh Lodhe, and M. Balasubramanian, Development of biomorphic alumina using egg shell membrane as bio-template, ***Ceramics International,* 44** (April 2018) 4615–4621.

13. G. Logesh, Mangesh Lodhe and M. Balasubramanian, Effect of temperature and gaseous medium on the evolved microstructures of carbon fiber reinforced reaction bonded silicon nitride composites, ***Ceramics International,* 43** (June 2017) 6110–6116.

14. Mangesh Lodhe, Niraj Chawake, Devinder Yadav and M. Balasubramanian, On correlation between $\beta \rightarrow \alpha$ transformation and densification mechanisms in SiC during spark plasma sintering, ***Scripta Materialia,* 115** (April 2016) 137-140.

15. Mangesh Lodhe, A. Selvam, A. Udayakumar and M. Balasubramanian, Effect of polycarbosilane addition to a mixture of rice husk and coconut shell on SiC whisker growth, ***Ceramics International,* 42** (2016) 2393-2401.

16. Mangesh Lodhe, Narendra Babu, M. Balasubramanian, Synthesis and characterization of high ceramic yield polycarbosilane precursor for SiC, ***Journal of Advanced Ceramics,* 4** (4) (2015) 307-311.

17. G.Amirthan and M.Balasubramanian, Helium gas permeability of SiC tubes produced using cotton fabric, ***Ceramics International,* 41**, (3) (2015) 3589-3594.

18. B. Praveenkumar, H.H. Kumar, D.K. Kharat, M. Balasubramanian and B.S. Murty, Investigation on PZT-based nanostructured functional materials, ***Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry***, **44** (7) (2014) 991-994.

19. Udayakumar, M. Stalin, M.B. Abhayalakshmi, Ramya Hariharan and M. Balasubramanian, Effect of thermal cycling of SiC_f/SiC composites on their mechanical properties, ***Journal of Nuclear Materials,* 442** (1–3, Supplement 1) (2013) S384-S389.

20. N. Kavitha, M. Balasubramanian and A. Xavier Kennedy, Investigation of impact behavior of epoxy reinforced with nanometer- and micrometer-sized silicon carbide particles, ***Journal of Composite Materials, 47*** (2013)1877-1884.

21. P. Prabhu, P. Jawahar, M. Balasubramanian and T.P. Mohan, Machinability study of hybrid nanoclay-glass fibre reinforced polyester composites, ***International Journal of Polymer Science***, vol. 2013, Article ID 416483, 11 pages, 2013, doi:10.1155/2013/416483.

22. N. Kavitha, M. Balasubramanian and Y. Deval Vashistha, Optimization of processing conditions on the yield of nano SiC powder from rice husk, ***Advanced Materials Research,* 341-342** (2012) 103-107.

23. J. Chandradass, M. Balasubramanian, Dong Sik Bae and Hern Kim, Gd_2O_3:Eu nanophosphors prepared via reverse micelle processing: Influence of Eu content on photoluminescence property, ***Materials and Manufacturing Processes***, **27** (2012) 1290–1294.
24. G. Amirthan and M. Balasubramanian, Reciprocating sliding wear studies on Si/SiC ceramic composites, ***Wear,*** **271** (2011) 1039-1049.
25. A. Udayakumar, M. Balasubramanian, H.B. Gopala, P. Sampathkumaran, S. Seetharamu, R. Ramesh Babu, D. Sathiyamoorthy and G.R. Reddy,– Influence of the type of interface on the tribological characteristics of ICVI generated SiC_f/SiC composites, ***Wear,*** **271** (2011) 859-865.
26. A. Udayakumar, P.M. Raole and M. Balasubramanian, Synthesis of tailored 2D SiC_f/SiC ceramic matrix composites with BN/C interphase through ICVI, ***Journal of Nuclear Materials,*** **417** (2011) 363-366.
27. N. Kavitha, M. Balasubramanian and Y. Deval Vashistha, Synthesis and characterization of nano silicon carbide powder from agricultural waste, ***Transactions of the Indian Ceramic Society,*** **70** (2011) 115-118.
28. Ch. Sree Rama Linga Prasad, G. Sreenivasulu, S. Roopas Kiran, M. Balasubramanian and B.S. Murty, Electrical and magnetic properties of nanocrystalline $BiFeO_3$ prepared by high energy ball milling and microwave sintering, ***Journal of Nanoscience and Nanotechnology***, **11** (2011) 4097-4102.
29. A. Udayakumar, A. Sri Ganesh, S. Raja and M. Balasubramanian, Effect of intermediate heat treatment on mechanical properties of SiC_f/SiC Composites with BN interphase prepared by ICVI, ***Journal of the European Ceramic Society,*** **31** (2011) 1145-1153.
30. G. Amirthan, K. Nakao, M. Balasubramanian, H. Tsuda and S. Mori, Influence of N and Fe on a-Ti precipitation in the in-situ TiC-titanium alloy composites, ***Journal of Materials Science,*** **46** (2011) 1103-1109.
31. J. Chandradass, M. Balasubramanian and Ki Hyeon Kim, Effect of Ni doping on the structure and magnetic property in chemically synthesized $(In_{1-x}Ni_x)_2O_3$ (x = 0.03, 0.05 and 0.07) nanocrystals,– ***Materials and Manufacturing Processes,*** **26** (2011) 325–329.
32. J. Chandradass, M. Balasubramanian and Ki Hyeon Kim, The influence of oleic acid to metal nitrate ratio on the particle size and magnetic properties of lanthanum ferrite nanoparticles by emulsion method, ***Materials and Manufacturing Processes,*** **26** (2011) 230-235.
33. J. Chandradass, M. Balasubramanianb and Ki Hyeon Kim, Solution phase synthesis of t-ZrO_2 nanoparticles in ZrO_2–SiO_2 mixed oxide, ***Journal of Experimental Nanoscience,*** **6** (2011) 38-48.

34. G. Amirthan, A. Udayakumar and M. Balasubramanian, Thermal conductivity studies on Si/SiC ceramic composites, ***Ceramics International*, 37** (2011) 423-426.

35. T. Periadurai, C.T. Vijayakumar and M. Balasubramanian, Thermal decomposition and flame retardant behaviour of SiO_2-phenolic nanocomposites, ***Journal of Analytical and Applied Pyrolysis*, 89** (2010) 244–249.

36. J. Chandradass, M. Balasubramanian and Ki Hyeon Kim, Size effect on the magnetic property of $CoAl_2O_4$ nanopowders prepared by reverse micelle processing, ***Journal of Alloys and Compounds*, 506** (2010) 395-399.

37. J. Chandradass, M. Balasubramanian and Ki Hyeon Kim, Synthesis and characterization of $LaAlO_3$ nanopowders, ***Materials and Manufacturing Processes*, 25** (2010) 1449–1453.

38. J. Chandradass, M. Balasubramanian, D.S. Bae, J. Kim and K.H. Kim, Variations in oleic acid and metal nitrate emulsion under calcination on the structure and morphology of $LaAlO_3$ nanopowders, ***Journal of Alloys and Compounds*, 498** (2010) L1-L4.

39. J. Chandradass, M. Balasubramanian, D.S. Bae, J. Kim and K.H. Kim, Effect of water to surfactant ratio on the particle size of $MgAl_2O_4$ nanoparticles prepared through reverse micelle method, ***Journal of Alloys and Compounds*, 491** (2010) L25-L28.

40. J. Chandradass, M. Balasubramanian, S. Kumar, Dong-sik Bae and Ki Hyeon Kim, Effect of Fe doping on the room temperature ferromagnetism in chemically synthesized $(In_{1-x}Fe_x)_2O_3$ ($0 \leq x \leq 0.07$) magnetic semiconductors, ***Current Applied Physics*, 10** (2010) 333–336.

41. G. Amirthan, A. Udayakumar, V.V. Bhanu Prasad and M. Balasubramanian, Solid particle erosion studies on biomorphic Si/SiC ceramic composites, ***Wear*, 268** (2010) 145-152.

42. P. Jawahar, K. Kanny and M. Balasubramanian, Influence of nanoclay addition on properties of unsaturated-polyester nanocomposite gel coat, ***Journal of Polymer Engineering*, 29** (2009) 563-580.

43. B. Praveenkumar, G. Sreenivasalu, H.H. Kumar, D.K. Kharat, M. Balasubramanian and B.S. Murty, Size effect studies on nanocrystalline $Pb(Zr_{0.53}Ti_{0.47})O_3$ synthesised by mechanical activation route, ***Materials Chemistry and Physics*,** 117 (2009) 338-342.

44. G. Amirthan, A. Udayakumar, V.V. Bhanu Prasad and M. Balasubramanian, Properties of Si/SiC ceramic composite subjected to chemical vapour infiltration, ***Ceramics International*, 35** (2009) 2601-2607.

45. J. Chandradass, Dong-sik Bae, Ki Hyeon Kim, K. Prasad, G. Balachandar, S. Athisaya Divya and M. Balasubramanian, Starch consolidation of alumina: Fabrication and mechanical properties, ***Journal of the European Ceramic Society*, 29** (2009) 2219-2214.

46. J. Chandradass, M. Balasubramanian and Dong-sik Bae,[illegible] Effect of different fuels on the alumina-ceria composite powders synthesized by sol-gel auto combustion method, ***Journal of Alloys and Compounds*, 479** (2009) 363-367.

47. E. Deenadayalan, A.K. Lele and M. Balasubramanian, Reactive extrusion of poly (L-Lactic acid) with Glycidol, ***Journal of Applied Polymer Science*, 112** (2009) 1391-1398.

48. B. Bhav Singh and M. Balasubramanian, Processing and properties of copper coated carbon fibre reinforced aluminium alloy composites, ***Journal of Materials Processing Technology*, 209** (2009) 2104-2110.

49. G. Amirthan,[illegible] A. Udayakumar, V.V. Bhanu Prasad and[illegible] M. Balasubramanian, Synthesis and characterization of Si/SiC ceramics prepared using cotton fabric, ***Ceramics International*, [illegible]35** (2009), 967-973.

50. A. Udayakumar, R. Bhuvana, S.Kalyanasundaram, J. Subramanyam,[illegible] M. Balasubramanian and T.S. Kannan, Vapour phase preparation and characterisation of SiC_f-SiC and C_f-SiC ceramic matrix composites, ***Key Engineering Materials*, 395** (2009) 209-232.

51. J. Chandradass, Dong-Sik Bae and M. Balasubramanian, Synthesis and characterization of sol-gel alumina fibre by seeding α-alumina through extended ball milling, ***Materials and Manufacturing Processes*, 23** (2008) 786-790.

52. J. Chandradass, Hoy-Yul Park, M. Balasubramanian and Dong-Sik Bae, Synthesis and characterization of alumina-zirconia nanopowders via an oxalate route, ***Materials and Manufacturing Processes*, 23** (2008) 777-781.

53. J. Chandradass and M. Balasubramanian, Synthesis and Characterization of CaO doped alumina-zirconia fibers by sol-gel process, ***Materials and Manufacturing Processes*, 23** (2008) 159-162.

54. J.Chandradass and M.Balasubramanian, Extrusion of alumina fibres using zirconia sol as binder, ***Ceramics International*, 33** (2007) 1631-1634.

55. J. Chandradass and M. Balasubramanian, Effect of organic additives on the properties of sol-gel spun alumina-zirconia fibre, ***Industrial Ceramics*, 27 (1)** (2007), 35-40.

56. P. Jawahar and M. Balasubramanian, Preparation and[illegible] properties[illegible] of[illegible] polyester based nanocomposite gel coat system,[illegible] ***Journal of Nanomaterials*** (2006), Article ID 21656, 1-7. (http://www.hindawi.com/GetPDF.aspx?doi=10.1155/JNM/2006/21656).

57. S. Sakthivelu, P. Manohar, V. Ramamurthi and M. Balasubramanian, Effect of grinding on de-hydoxylation behaviour of diaspore, ***Transactions of the Indian Ceramic Society, 65*** (2006) 211-214.

58. P. Jawahar and M. Balasubramanian, Influence of nanosize clay platelets on the mechanical properties of glass fiber reinforced polyester composites, ***Journal of Nanoscience and Nanotechnology, 6*** (2006) 3973-3976.

59. V. Vinothini, Paramanand Singh and M. Balasubramanian, Optimisation of barium titanate nanopowder slip for tape casting, ***Journal of Materials Science, 41*** (2006) 7082-7087.

60. J. Chandradass and M. Balasubramanian, Sintering behaviour of sol-gel derived alumina and alumina-zirconia minispheres, ***Materials and Manufacturing Processes, 21*** (2006) 804-809.

61. S. Sakthivelu, P. Manohar, V. Ramamurthi and M. Balasubramanian, Deflocculating effect of sodium polymethacrylates on aqueous clay suspensions, ***Transactions of the Indian Ceramic Society, 65*** (2006) 165-167.

62. P. Jawahar, R. Gnanamoorthy and M. Balasubramanian, Tribological behaviour of clay-thermoset polyester nanocomposites, ***Wear, 261*** (2006) 835-840.

63. J. Chandradass and M. Balasubramanian, Extrusion of alumina fibre using sol-gel precursor, ***Journal of Materials Science, 41*** (2006) 6026-6030.

64. J. Chandradass and M. Balasubramanian, Effect of magnesium oxide on sol-gel spun alumina and alumina-zirconia fibres, ***Journal of the European Ceramic Society, 26*** (2006) 2611-2617.

65. J. Chandradass and M. Balasubramanian, Sol-gel based extrusion of alumina fibres, ***Materials and Manufacturing Processes, 21*** (2006) 319-323.

66. J. Chandradass and M. Balasubramanian, Sol-gel processing of alumina fibres, ***Journal of Materials Processing Technology, 173*** (2006) 275-280.

67. V. Vinothini, Paramanand Singh and M. Balasubramanian, Synthesis of barium titanate nanopowder using polymeric precursor method, ***Ceramics International, 32*** (2006) 99-103.

68. P. Jawahar and M. Balasubramanian, Thermal, mechanical and water barrier properties of clay-unsaturated polyester nanocomposites, ***International Journal of Plastics Technology, 9*** (2005) 472-481.

69. J. Chandradass and M. Balasubramanian, Sol-gel processing of alumina-zirconia minispheres, ***Ceramics International, 31*** (2005) 743-748.

70. P. Jawahar, R. Gnanamoorthy and M. Balasubramanian, Flexural and tribological properties of polyester-clay nanocomposites, ***Journal of Materials Science, 40*** (2005) 4391-4393.

71. J. Chandradass and M. Balasubramanian, Sol-gel based extrusion of alumina-zirconia fibers, ***Material Science and Engineering A, 408*** (2005) 165-168.

72. V. Viswabaskaran, F.D. Gnanam and M. Balasubramanian, Mullite from clay-reactive alumina for insulating substrate application, ***Applied Clay Science, 25*** (2004) 29-35.

73. V. Viswabaskaran, F.D. Gnanam and M. Balasubramanian, Mullitisation behaviour of calcined clay-alumina mixtures, ***Ceramics International, 29*** (2003) 561-571.

74. V. Viswabaskaran, F.D. Gnanam and M. Balasubramanian, Effect of MgO on mullitisation behaviour of clays, ***Journal of Materials Science Letters, 22*** (2003) 663-668.

75. V. Viswabaskaran, F.D. Gnanam and M. Balasubramanian, Effect of MgO, Y_2O_3 and boehmite additives on the sintering behaviour of mullite formed from kaolinite-reactive alumina, ***Journal of Materials Processing Technology, 142*** (2003) 275-281.

76. V. Viswabaskaran, F.D. Gnanam and M. Balasubramanian, Characterisation of aluminous clays from Tamilnadu, ***Transactions of the Indian Ceramic Society, 61*** (2002) 176-180.

77. V. Viswabaskaran, F.D. Gnanam and M. Balasubramanian, Mullitisation behaviour of south Indian clays, ***Ceramics International, 28*** (2002) 557-564.

78. V. Viswabaskaran, F.D. Gnanam and M. Balasubramanian, Study on utilisation of Neyveli clay for value added ceramics, ***Transactions of the Indian Ceramic Society, 61*** (2002) 93-98.

79. M. Balasubramanian, S.K. Malhotra and C.V. Gokularathnam, Sintering and mechanical properties of sol-gel derived alumina-zirconia composites, ***Journal of Materials Processing Technology, 67*** (1997) 67-70.

80. M. Balasubramanian, S.K. Malhotra and C.V. Gokularathnam, Transformations in composite powders of aluminium and zirconium hydroxides, ***British Ceramic Transactions, 95*** (1996) 263-66.

81. M. Balasubramanian, S.K. Malhotra and C.V. Gokularathnam, Influence of calcination temperature on the properties of spray dried alumina-zirconia composite powders, ***Journal of Materials Science, 30*** (1995) 3515-20.

82. M. Balasubramanian, T. Sornakumar, S.K. Malhotra C.V. Gokularathnam and R. Krishnamurthy, Grinding of sol-gel derived alumina-zirconia composites, ***International Journal of Refractory Metals and Hard Materials, 13*** (1995) 359-63.

83. M. Balasubramanian, S.K. Malhotra and C.V. Gokularathnam, Phase transformations in spray dried alumina-zirconia composite powders, ***Transactions of the Indian Institute of Metals, 48*** (1995) 259-62.

84. M. Balasubramanian, S.K. Malhotra and C.V. Gokularathnam, Influence of particle characteristics on the sintering behaviour of alumina-zirconia composites, ***Journal of Materials Science letters, 14*** (1995) 1484-85.

85. M. Balasubramanian, S.K. Malhotra and C.V. Gokularathnam, Microstructure and mechanical properties of alumina-zirconia Composites, ***Journal of Australasian Ceramic Society, 30*** (1994) 75-80.