SIDDHARTHA DAS

ADDRESS

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EDUCATION

Ph.D Metallurgical Engineering, University of Illinois at Urbana-Champaign, May 1989; G.P.A.=5.0 (out of 5.0).
Thesis: A Study of Alloys Based on the Mg-Li System.

M.S. Metallurgical Engineering, University of Illinois at Urbana-Champaign, August 1985, G.P.A.=4.9 (out of 5.0).
Thesis: Laser Surface Alloyed Iron-Chromium-Carbon system.

B.E. Metallurgical Engineering, B. E. College, Shibpur, University of Calcutta, India, July 1983; **First in First Class Among Students of All Branches of Engineering**.
Thesis: The Structure Property Correlationship of Few ESR Steels vis-a-vis Air Melted Steels.

EXPERIENCE

8/04-Present Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Kharagpur-721 302. Moved to Higher Administrative Grade Pay (HAG) in 2010.
Work involving research on nano crystalline materials and coatings, Li-ion battery, lead free solder and electro deposition.

2/15-Present Executive Adviser to Science and Technology Entrepreneur's Park, Indian Institute of Technology, Kharagpur -721 302.

4/11-3/14 Head, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Kharagpur-721 302.

5/99-8/04 Associate Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Kharagpur-721 302.
Work involving research on deformation and recrystallization behaviour of some aluminium packaging alloys and plasma sprayed ceramic coatings.

1/99-1/2004	Vice-Chairman, Central Research Facility, IIT, Kharagpur-721 302
4/97-5/99	Assistant Professor, Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Kharagpur-721 302. Work involving research on plasma sprayed ceramic coatings, intermetallics and composites.
1/96-4/97	Assistant Professor and Head of Electron Microscopy Laboratory, Department of Metallurgical Engineering, Indian Institute of Technology, Madras-600 036. Work involving research on intermetallics, electronic materials, composites, etc. and teaching physical metallurgy and electron microscopy.
4/95-12/95	UGC Research Scientist, Department of Metallurgy, Jadavpur University, Work involving research on deformation mechanisms of some intermetallic compounds.
11/89-8/94	Postdoctoral Research Associate, Department of Materials Science and Engineering, University of Wisconsin-Madison. Work involving research on phase equilibria, processing and deformation mechanisms of intermetallic compounds, rapid solidification processing of materials, and composites.
2/89-11/89	Postdoctoral Research Associate, Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign. Work involving research on deformation mechanisms of intermetallic compounds and rapid solidification processing of materials.
1/86-2/89	Graduate Research Assistant, Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign. Ph.D work involving research on the phase equilibria, rapid solidification processing, mechanical properties and oxidation behaviour of alloys based on the Mg-Li system.
8/83-12/85	Graduate Research Assistant, Department of Mechanical and Industrial Engineering, University of Illinois at Urbana-Champaign, M.S. work involving research on laser aided materials processing.
1982 (Summer)	Undergraduate Student Trainee in Tata Iron and Steel Co. (TISCO). Jamshedpur, India.
1981 (Summer)	Undergraduate Student Trainee in Hindustan Copper Ltd., Ghatshila, India.

RESEARCH AREAS

1. Nano materials
2. Lead free solder
3. Light metals and alloys for automotive and aerospace applications.
4. Electrodepostion
5. Surface engineering
6. Li-ion battery
7. Failure analysis

AWARDS AND ACHIEVEMENTS

1. Technology Award 2015 by the The Minerals Metals and Materials Society (TMS) USA, in recognition of the most notable research publication contributing to the advancement of the technology of the extraction and processing of nonferrous metals.

2. MRSI Medal by the Materials Research Society of India in recognition of his significant contributions to the field of materials science and engineering (2006).

3. The Vidya Varati Award by the Indian Institute of Metals for securing highest marks in the final B.E. (Met.) Examinations (1982-83).

4. The Indranil Award of Metallurgy by Mining, Geological, and Metallurgical Institute of India for securing first position in B.E. (Metallurgy) from B.E. College, University of Calcutta, India (1982-83)

5. Rai Bahadur J.N. Ghosh Oveseas Scholarship by University of Calcutta, India for proficiency and merit (1984-85).

6. Prof. N.N. Sen Memorial Scholarship on the basis of merit in University of Calcutta examinations.

7. National Scholarship Scheme Certificate of Merit by Ministry of Education and Culture, Government of India, in recognition of high position secured at school leaving examination (1977).

PROFESSIONAL AND HONOUR SOCIETIES

1. Council Member of Materials Research Society of India.

2. Member of the Manufacturing Committee of the Bengal Chamber of Commerce and Industry (BCC&I), 2015-16.

3. Member of the Advisory cum Screening Committee for Faculty and Staff Development under Technical Education Quality Improvement Program Phase II

(TEQIP II), A Government of West Bengal Unit for World Bank Assisted Project for Technical Education.

4. Powder Metallurgy Association of India (Life Member).

5. Indian Institute of Metals (Life Member)

5. Materials Research Society of India (Life Member)

6. Tau Beta Pi, a national engineering honour society, U.S.A.

7. Sigma Xi, a national scientific research society, U.S.A.

PATENTS

1. A patent on a set of plasma sprayed ceramic coatings has been granted in 2006 by the Patent Office, Calcutta, Government of India (Ref.: 229/CAL/2001 of 17.04.2001).

2. An electrolyte bath composition for whisker resistant tin plating on metal substrate : Filed (Ref : 1001/KOL/2013)

3. Porous nanostructured tin-antimony-copper based alloy electrodes as anode material for lithium batteries and methods there of : Filed (June 05, 2014) (Ref : 0613/KOL/2014)

PUBLICATIONS

In Refereed International Journals

1. M. Aindow, K. Chaudhuri, **S.Das**, and H.L. Fraser, "On the influence of stoichiometry and purity on the deformation mechanisms in the intermetallic compound TiAl," Scripta Metallurgica et Materialia, **24**, 1105-1108, (1990).
2. **S.Das** and J.H. Perepezko, "Ternary phase development in the Ti-A1-Ta system," Scripta Metallurgica et Materialia, **25**, 1193-1198, (1991).
3. K. Chaudhuri and **S.Das**, "Deformation microstructures of Ti-52at.%A1-3at.%V alloy" Philosophical Magazine Letters, **76** (3), 143-150, (1993).
4. **S.Das**, J.C. Mishurda, W.P Allen, J.H. Perepezko, and L.S. Chumbley, "Development of a (γ+ß$_o$) lamellar microstructure in a $Ti_{45}A1_{50}Mo_5$ alloy," Scripta Metallurgica et Materialia, **28**, 489-494, (1993).
5. D.R. Allen, **S. Das**, and J.H. Perepezko, "Kinetic competition during duplex partitionless crystallization," Nucleation and Crystallization in Liquids and Glasses, ed. M.C. Weinberg, Ceramic Transactions, **30**, 343-346, The American Ceramic Society, Inc., (1993).

6. **S.Das** and K.Chaudhuri, "Deformation microstructures of γ-TiA1 in the Ti-46A1-2V alloy," Scripta Metallurgica et Materialia, **32,**, 201-206, (1995).
7. **S.Das**, J.M. Howe, and J.H. Perepezko, "A high resolution transmission electron microscopy study of interfaces between the γ, B2 and α_2 phases in a Ti-A1-Mo alloy," Metallurgical and Materials Trans. A, **27A**, 1623-1634, (1996).
8. V.S. Sarma, K.A. Padmanabhan, and **S. Das**, "Transmission electron microscopy of a cylindrically deformed medium carbon microalloyed steel," Journal of Materials Science Letters; **16**, 1495-98, (1997).
9. B. Chakraborty, A. C. Pulikottil, **S. Das**, and B. Viswanathan, "Synthesis and characterization of mesoporous SAPO," J. Chem. Soc. Chemical Communications, No. 10, 911-912, (1997).
10. B. Chakraborty, A. C. Pulikottil, **S. Das** and B. Viswanathan "Synthesis and characterization of mesoporous silicoaluminophosphate," Stud. Surf. Sci. Catal., **113**, 631 – 636, (1998).
11. K. Das and **S. Das**, "Diffusional reactions during processing of TIMETAL 21S/Al_2O_3 composites," Metallurgical and Materials Trans.A, **30A**, 1437-1447, (1999).
12. K. Das and **S. Das**, "Deformation mechanisms in the γ-TiAl phase resent in the Ti-46Al-2V-0.4Er alloy," Journal of Materials Science, **34**, 2345-2349, (1999).
13. P. P. Bandyopadhyay, **S. Das**, S. Madhusudan, and A. B. Chattopadhyay, "Wear and thermal fatigue characteristics of plasma sprayed alumina coatings," Journal of Materials Science Letters, **18**, 727-729, (1999).
14. **S.Das**, R. Shriram, K.N. Bhat, and P.R.S. Rao, "Effects of deposition and annealing condition on the structure and electrical properties of LPCVD silicon thin films," Journal of Materials Science, **35** (18), 4743-4746, (2000).
15. K. Das, P. Chaudhury, and **S. Das**, "The Al-O-Ti (Aluminum-Oxygen-Titanium) system," Journal of Phase Equilibria, **23**, 525-536, (2002).
16. P. Chaudhury, **S. Das**, and B. K. Datta, "Effect of nickel on the wear behaviour of a zinc-aluminium alloy," Journal of Materials Science, **37**, 2103-2107, (2002).
17. S. Ghosh, **S. Das**, T. K. Bandyopadhyay, P.P. Bandyopadhyay, and A. B. Chattopadhyay, "Indentation responses of plasma sprayed ceramic coatings," Journal of Materials Science, **38**, 1565-1572, (2002).
18. K. Das, T. K. Bandyopadhyay, and **S. Das**, "A review on the various synthesis routes of TiC reinforced ferrous based composites," Journal of Materials Science, **37**, 3881-3892, (2002).
19. P. Choudhury and **S. Das**, "Effect of nickel aluminides on tribological behaviour of a zinc - aluminium alloy," Materials Science and Technology, **19**, 535-537, (2003).
20. **S. Das**, P. P. Bandyopadhyay, T. K. Bandyopadhyay, S. Ghosh and A. B. Chattopadhyay, "Processing and characterization of plasma sprayed ceramic coatings on steel substrate; Part I: On coating characteristics," Metallurgical and Materials Transactions A, **34A**, 1909-1918, (2003).

21. **S. Das**, P. P. Bandyopadhyay, S. Ghosh, T. K. Bandyopadhyay and A. B. Chattopadhyay, "Processing and characterization of plasma sprayed ceramic coatings on steel substrate; Part II: On coating performance," Metallurgical and Materials Transactions A, **34A**, 1919-1930, (2003).
22. K. Das and **S. Das**, "Order-disorder transformation of the BCC phase in the Ti-Al-X (X=Ta,Nb, or Mo) system," Journal of Materials Science, **38**, 3995-4002, (2003).
23. P. Choudhury and **S. Das**, "Effect of microstructure on the corrosion behaviour of a zinc-aluminium alloy," Journal of Materials Science Letters, **40**, 805-807, (2005).
24. P. Choudhury, K. Das, and **S. Das**, "Evolution of as-cast and and heat treated microstructure of a commercial bearing alloy," Materials Science and Engineering A, **398**, 332-343, (2005).
25. R. K. Roy, S. Kar, K. Das, and **S. Das**, "Microstructures and tensile properties of commercial purity aluminium alloy AA1235 under different annealing conditions," Materials Letters, **59**, 2418-2422, (2005).
26. R. K. Roy, S. Kar, K. Das, and **S. Das**, "A study of precipiation and recrystallization behaviour of of aluminium alloy AA1235," Journal of Materials Science, **41**, 1039-1045, (2005).
27. **S. Das**, S. Ghosh, A. Pandit, T. K. Bandyopadhyay, A. B. Chattopadhyay, and K. Das, "Processing and characterization of of plasma sprayed zirconium-alumina-mullite composite coating on mild steel substrate," Journal of Materials Science Letters, **40**, 5087-5089, (2005).
28. K. Das and **S. Das,** "The Ti-Al-Ta (Titanium-Aluminium-Tantalum) system," J. of Phase Equilibria and Diffusion, **26,** 322-329, (2005).
29. Sanjeev Das, V. Udhayabanu, **S. Das** and K. Das, "Synthesis and microstructural characterization of $ZrSiO_4$/Al-4.5wt.%Cu composite produced by stir casting route," Journal of Materials Science, **41,** 4668-4677, (2006).
30. R. K. Roy and **S. Das**, "A new combination of polishing and etching technique for revealing grain structure of an annealed aluminium alloy AA1235," Journal of Materials Science Letters, **41,** 289-292, (2006).
31. Sanjeev Das, **Siddhartha Das** and Karabi Das, "Ageing behavior of Al-4.5 wt%Cu matrix alloy reinforced with Al_2O_3 and $ZrSiO_4$ particulate varying particle size", J. of Mat Sci. Lett., **41**, 5402-5406, (2006).
32. Sanjeev Das, **Siddhartha Das** and Karabi Das, "Abrasive wear of zircon sand and alumina reinforced Al-4.5wt.%Cu alloy matrix composites – A comparative study," Composites Science and Technology, **67**, 746-751, (2007).
33. T. G. Durai, K. Das, and **S. Das**, "Synthesis and characterization of Al-Zn/Al_2O_3 nano powder composites," Journal of Nanoscience and Nanotechnology, **7**, 1-5, (2007).
34. T. G. Durai, K. Das, and **S. Das**, "Synthesis and characterization of Al matrix composites reinforced by in-situ alumina particulates," Materials Science and Engineering A, **445-446**, 100-105, (2007).

35. B. S. B. Reddy, Karabi Das, S. K. Pabi, and **Siddhartha Das**, "Mechanical – thermal synthesis of Al – Ce/Al_2O_3 nanocomposite powders," Materials Science and Engineering A, **446**, 341-345, (2007).
36. T. G. Durai, Karabi Das, and **Siddhartha Das**, "Al (Zn) – Cu /Al_2O_{3p} in-situ metal – matrix composite synthesized by displacement reaction," J of Alloys and Compounds, **457(1)**, 435-439, (2008).
37. T. G. Durai, Karabi Das, and **Siddhartha Das**, "Effect of mechanical milling on the corrosion behaviour of Al-Zn/Al_2O_3 composite in NaCl solution," J of Materials Science, **42**, 8209-8214, (2007).
38. B. S. B. Reddy, Indrajit Mall, Shanideep Tewari, Karabi Das, and **Siddhartha Das**, "Aqueous combustion synthesis and characterization of nano-sized tetragonal zirconia single crystals," Metallurgical and Materials Transactions A, **38A**, 1786-1793, (2007).
39. T. G. Durai, Karabi Das, and **Siddhartha Das**, "Wear behaviour of nano structured Al (Zn)/Al_2O_3 and Al (Zn)-4Cu/Al_2O_3 composite materials synthesized by mechanical and thermal process," Materials Science & Engineering A, **471**, 88-94, (2007).
40. B. S. B. Reddy, Karabi Das, and **Siddhartha Das**, "A review on the synthesis of in-situ aluminium based composites by thermal, mechanical and mechanical-thermal activation of chemical reactions, J of Materials Science, **42**, 9366-9378, (2007).
41. T. G. Durai, Karabi Das, **Siddhartha Das**, "Corrosion behavior of Al-Zn/ Al_2O_3 and Al-Zn-X/ Al_2O_3 (X=Cu, Mn) composites synthesized by mechanical-thermal treatment," J. of Alloys and Compounds, **462(1)**, 410-415, (2008).
42. B. S. B. Reddy, K. Rajasekhar, M. Venu, J. J. S. Dilip, **Siddhartha Das** and Karabi Das, "Mechanical activation assisted solid state combustion synthesis of in-situ aluminum matrix hybrid (Al_3Ni/ Al_2O_3) nanocomposites," J. of Alloys and Compounds, **465(1)**, 97-105, (2008).
43. B. S. B. Reddy, Karabi Das, Amal Kumar Datta and **Siddhartha Das**, "Pulsed co-electrodeposition and characterization of Ni based nanocomposites reinforced with combustion-synthesized, undoped, tetragonal-ZrO_2 particulates," Nanotechnology, **19**, 115603 (2008)**.**
44. Rajat Kumar Roy, Sujoy Kar, and **Siddhartha Das**, "Evolution of microstructure and mechanical properties during annealing of cold-rolled AA8011 alloy," J. of Alloys and Compounds, **468(1)**, 122-129, (2009)**.**
45. J. John Samuel Dilip, B.S.B. Reddy, **Siddhartha Das**, Karabi Das, "In-situ Al based bulk Nanocomposites by Solid-State Aluminothermic reaction in Al-Ti-O system," Journal of Alloys and Compounds, **475**, 178-183, (2009).
46. Ranjan Sen, Ashutosh Sharma, Sumit Bhattacharya, **Siddhartha Das** and Karabi Das, "Synthesis and characterization of pulse co-electrodeposited nickel/ceria nanocomposites, J. of Nanoscience and Nanotechnology, 10, 1-6, 2010.
47. Ranjan Sen, Sumit Bhattacharya, **Siddhartha Das** and Karabi Das, "Effect of surfactant on the co-electrodeposition of the nano-sized ceria particle in the nickel matrix," Journal of Alloys and Compounds, 489, 650-658, 2010.

48. J. John Samuel Dilip, B.S.B. Reddy, **Siddhartha Das**, Karabi Das, "Mechanical Thermal Synthesis of In-situ Al based hybrid nanocomposites in Al-Ni-Ti-O system," Journal of Alloys and Compounds, 490, 103-109, 2010.
49. J. Kishan, Venu Mangam, BSB Reddy, **Siddhartha Das** and Karabi Das, "Aqueous combustion synthesis and characterization of Zirconia-Alumina nanocomposites," Journal of Alloys and Compounds, 490, 631-636, 2010.
50. Sanjeev Das, Karabi Das and **Siddhartha Das**, "Abrasive wear behavior of Al-4.5wt.%Cu/(Zircon sand+Silicon carbide) Hybrid Composite," Journal of Composite Materials, 43, 2665-2672, 2009.
51. Venu mangam, Karabi Das and **Siddhartha Das**, "Structure and properties of electrocodeposited Cu-CeO_2 nanocomposite thin films, Materials Chemistry and Physics, 120, 631-635, 2010.
52. Ranjan Sen, **Siddhartha Das** and Karabi Das, "Effect of current density on microstructure and hardness of Ni-CeO_2 nanocomposite coating synthesized by pulsed electrodeposition technique", J. of Nanoscience and Nanotechnology, 10, 1-10, 2010.
53. Venu Mangam, Sumit Bhattacharya, Karabi Das and **Siddhartha Das**, "Friction and wear behavior of Cu-CeO_2 nanocomposite coatings synthesized by pulsed electrodeposition," Surface Coating and Technology, 205, 801-805, 2010.
54. Ranjan Sen, **Siddhartha Das** and Karabi Das, "Microstructural characterization of nano-sized ceria powders by X-Ray Diffraction analysis," Met. Trans. A, 42, 1409-1417, 2011.
55. Ranjan Sen, **Siddhartha Das** and Karabi Das, "The effect of bath temperature on the crystallite size and microstructure of Ni-CeO_2 nanocomposite coating", Materials Characterization, 62, 257-262, 2011.
56. Ranjan Sen, **Siddhartha Das** and Karabi Das, "Effect of stirring rate on the microstructure and microhardness of Ni-CeO_2 nanocomposite coating and investigation of the corrosion property", Surface and Coating Technol, 205, 3847-3855, 2011.
57. Ranjan Sen, **Siddhartha Das** and Karabi Das, "Electrical resistivity measurement of micro/nano crystalline Ni and Ni-CeO_2 nanocomposite coatings using four probe method," International Journal of Nanotechnology and Applications", 4, 207-212, 2010.
58. Ranjan Sen, **Siddhartha Das** and Karabi Das, "Combustion and ball milled synthesis of rare earth nano-sized ceria powder," Materials Sciences and Applications", 2, 416-420, 2011.
59. Haribabu Palneedi, Venu Mangam, **Siddhartha Das** and Karabi Das, "Effect of fuel-to-nitrate ratio on the powder characteristics of nanosized CeO_2 synthesized by mixed fuel combustion method," Journal of Alloys and Compounds, 509, 9912-9918, 2011.
60. Ashutosh Sharma, Sumit Bhattacharya, Ranjan Sen, B.S.B. Reddy, H.-J. Fecht, Karabi Das, and **Siddhartha Das**, "Influence of current density on microstructure of pulse electrodeposited tin coatings," Materials Characterization, 68, 22-32, 2012

61. Ranjan Sen, **Siddhartha Das** and Karabi Das, “Influence of duty cycle on the microstructure and microhardness of pulse electrodeposited Ni-CeO_2 nanocomposite coating,” Materials Research Bulletin, 47, 478-485, 2012.
62. Ranjan Sen, **Siddhartha Das** and Karabi Das, “Synthesis and properties of pulse electrodeposited Ni-CeO_2 nanocomposite,” Metallurgical Transactions A, 43A, 3809-3823, 2012.
63. Ranjan Sen, **Siddhartha Das** and Karabi Das, “Influence of sodium saccharin on the microstructure of pulse electrodeposited Ni-CeO_2 nanocomposite coating” J. of Nanoscience and Nanotechnology, 12(10), 7944-49, 2012.
64. Ashutosh Sharma, Sumit Bhattacharya, **Siddhartha Das**, H.J. Fecht, and Karabi Das, “Development of lead free pulse electrodeposited tin based composite solder coating reinforced with ex-situ cerium oxide nanoparticles,” J. of Alloys and Compounds, 574, 609-616, 2013.
65. Ashutosh Sharma, Sumit Bhattacharya, **Siddhartha Das**, and Karabi Das, “Fabrication of Sn-Ag/CeO2 electro-composite solder by pulse electrodeposition,” Metallurgical Transactions A, 44, 5587-5601, 2013.
66. Satyabati Das, **Siddhartha Das**, and Karabi Das, “Low temperature synthesis of negative thermak expansion Y2W3O12 composite," journal of Materials Engineering and Performance, 22, 3357-3362, 2013.
67. Satyabati Das, **Siddhartha Das**, and Karabi Das, “Synthesis and thermal behavior of Cu/Y2W3O12 composite," Ceramics International, 40, 6465-6472, 2014.
68. Ashutosh Sharma, **Siddhartha Das** and Karabi Das, “Influence of current density on surface morphology and properties of pulse plated tin films from citrate electrolyte,” Applied Surface Science, 290, 373-380, 2014
69. R. prava Dalai, **Siddhartha Das** and Karabi Das, “Development of TiC reinforced austenitic manganese steel,” Canadian Metallurgical Quarterly, 53, 2014, 317-325.
70. Ashutosh Sharma, Sumit Bhattacharya, **Siddhartha Das** and Karabi Das, "A study on the effect of pulse electrodeposition parameters on the morphology of pure tin coatings," Metallurgical and Materials Transactions A, Volume 45, Issue 10 (2014), Page 4610-4622.
71. Ashutosh Sharma, Karabi Das, Hans-J. Fecht, **Siddhartha Das**, “Effect of various additives on morphological and structural characteristics of pulse electrodeposited tin coatings from stannous sulphate electrolyte,” Applied Surface Science, 314, 2014, 516-522.
72. Ajaya Kumar Pradhan and **Siddhartha Das**, "Pulse-reverse electrodeposition of Cu–SiC nanocomposite coating: Effect of concentration of SiC in the electrolyte, Journal of Alloys and Compounds, 590, 294-302, 2014.
73. Ajaya Kumar Pradhan and **Siddhartha Das**, "Dry Sliding Wear and Friction Behavior of Cu-SiC Nanocomposite Coating Prepared by Pulse Reverse Electrodeposition," Tribology Transactions, 57, 46-56, 2014.
74. Ajaya Kumar Pradhan and **Siddhartha Das**, "Pulse Reverse Electrodeposition of Cu-SiC Nanocomposite Coating: Effects of Surfactants and Deposition Parameters," Metallurgical and Materials Transactions A, 45, 5708-5720, 2014.

75. Manila Mallik, Arijit Mitra, Srijan Sengupta, Karabi Das, Rabindra Ghosh and **Siddhartha Das**, "Effect of Current Density on the Nucleation and Growth of Crystal Facets during Pulse Electrodeposition of Sn-Cu Lead Free Solder," Crystal Growth and Design, 14 (12), pp 6542–6549, 2014.
76. A. Behera, S. Facsko, M. K. Bandyopadyay, **Siddhartha Das** and S. Chatterjee, "Amorphization and recrystallization of single-crystalline hydrogen titanate nanowires by N+ ion irradiation," Journal of Applied Physics, 115(23):233505-233505-6, 2014
77. Ashutosh Sharma, **Siddhartha Das** and Karabi Das, ""Electrochemical corrosion behavior of CeO_2 nanoparticle reinforced Sn-Ag based lead free nanocomposite solders in 3.5 wt% NaCl bath," Surface and Coatings Technol, 261, 235-243, 2015.
78. Ashutosh Sharma, Sumit Bhattacharya, **Siddhartha Das** and Karabi Das, "Fabrication of Sn nanostructures by template assisted pulse elctrodeposition," Surface Engineering, 32, 378-384, 2016.
79. Sumit Bhattacharya, Ashutosh Sharma, **Siddhartha Das** and Karabi Das, " Synthesis and Properties of Pulse Electrodeposited Lead-Free Tin-Based Sn/ZrSiO4 Nanocomposite Coatings," Metallurgical and Materials Transactions A, 47, 1292-1312, 2016.
80. K. Jayasankar, Abhishek Pandey, B. K. Mishra and **Siddhartha Das**, "Mixed fuel synthesis of Y_2O_3 nanopowder and their applications as dispersoid in ODS steel," Advanced Powder Technology, 26, Issue 5, 1306–1313, 2015
81. K. Jayasankar, Abhishek Pandey, B. K. Mishra and **Siddhartha Das,** "In-Situ Formation of Complex Oxide Precipitates During Processing of Oxide Dispersion Strengthened Ferritic Steels," *Fusion Engineering and Design*, 102, 14-16, 2016.
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83. Anup Mandal, Karabi Das and siddhartha Das, "Characterization of microstructure and properties of Al-Al_3Zr-Al_2O_3 composite, Bull. Mater. Sci., DOI 10.1007/s12034-016-1236-5.
84. Rajib Chakraborty, Srijan Sengupta, Partha Saha, Karabi Das and Siddhartha Das, "Synthesis of bio compatible calcium hydrogen phosphate and hydroxyapatite coating on SS316 substrate through pulsed electro deposition," Materials Science and Engineering C, 69, 875-883, 2016.