

Name: Dr. S.B. Chandrasekhar

Qualification: B.E. (NIT, Trichy) and Ph.D. (IIT Bombay)

Designation: Scientist "E"

Contact information:

Centre: Centre for Nanomaterials

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Experience

1. Scientist – ARCI (1999-till date)
2. Graduate Engineer Trainee (1998-1999), Nagarjuna Fertilizers and Chemicals Limited, Kakinada, A.P.

Research Areas of Interest:

Tungsten heavy alloys, cemented carbides, metal matrix nanocomposites and oxide dispersion strengthened steels, *etc.*

List of Journal Publications

1. D. Sivaprahasam, **S. B. Chandrasekhar**, K. Murugan, K. V. P. Prabhakar, "Microstructure and mechanical properties of M62 high-speed steel powder consolidated by high-temperature gas extrusion", Mater. Res. Innov. DOI: 10.1080/14328917.2019.1580889.
2. **S.B. Chandrasekhar**, N.P. Wasekar, M. Ramakrishna, P. Suresh Babu, T.N. Rao, B.P. Kashyap, Dynamic strain ageing in fine grained Cu-1 wt% Al₂O₃ composite processed by two step ball milling and spark plasma sintering, J. Alloys and Compd. 656 (2016) 423-430.
3. Sambaraj Sravan Kumara, Sandeep E S, **S.B. Chandrasekhar**, Swapan Kumar Karak, Development of nano-oxide dispersed 304L steels by mechanical milling and conventional sintering, Mater. Res. 19(1) (2016) 175-182.
4. **S.B. Chandrasekhar**, S. Sudhakara Sarma, M. Ramakrishna, P. Suresh Babu, Tata N. Rao and B.P. Kashyap, "Microstructure and properties of hot extruded Cu-1 wt.% Al₂O₃ nano composites synthesized by various techniques", Mater. Sci. Eng. A 591 (2014) 46–53.

5. Sanjay R. Dhage, P.S. Chandrasekhar, **S.B. Chandrasekhar** and Shrikant V. Joshi, “CIGS absorber layer by single-step non-vacuum intense pulsed light treatment of inkjet-printed film”, IEEE Proceedings (2014)1607-1610.
6. **S.B. Chandrasekhar**, D. Prabhu, M. Gopinath, V. Chandrasekaran, M. Ramakrishna, V. Uma, R. Gopalan, “High saturation magnetization in Fe-0.4 wt. %P alloy processed by a two-step heat treatment”, J. Magn. Mater., 345 (2013) 239-242.
7. S Mahendra Kumar, K Murugan, **S B Chandrasekhar**, Neha Hebalkar, M Krishna, B S Satyanarayana and Giridhar Madras, “Synthesis and characterization of nano silicon and titanium nitride powders using atmospheric microwave plasma technique”, J. Chem. Sci. 124 (2012) 557-563.
8. K. Murugan, **S.B. Chandrasekhar**, J. Joardar, “Nanostructured α/β -tungsten by reduction of WO₃ under microwave plasma”, Int. J. Refra. Mater. Hard Mater. 29 (2011) 128–133.
9. D. Chakravarty, B.V.Sarada, **S.B. Chandrasekhar**, K.Saravanan, T.N.Rao, “A novel method of fabricating porous silicon”, Mater. Sci. Eng. A 528 (2011) 7831– 7834.
10. R. Mariappan, S. Kumaran, T. Srinivasa Rao and **S. B. Chandrasekhar**, ”Microstructure and mechanical properties of duplex stainless steels sintered in different atmospheres”, Powder Metall. 54 (2011) 236 – 241.
11. D. Sivaprahasam, **S.B. Chandrasekhar** and R. Sundaresan, “Microstructure and mechanical properties of nanocrystalline WC–12Co consolidated by spark plasma sintering”, Intl. J. of Refractory Metals and Hard Mater. 25 (2007) 144-152.

Conference Presentations:

1. **S.B.Chandrasekhar**, S. Sudhakar Sharma, S. Shanthanu Madge, T. Narasinga Rao, “Synthesis and Consolidation of Cu-Al₂O₃ Nano Composite Powders”, PMAI 2008, Chennai
2. **S.B.Chandrasekhar**, D.Sen, G.Siva Kumar, R.Sundaresan, “Development of Nano WC-12Co Powders by Mechanical Milling and its Coating Characteristics”, PMAI 2007, Noida
3. **S. B. Chandrasekhar**, N. Girish, A. Siva Kumar, and R. Sundaresan, “Development of binder treated ferrous based powders”, to be presented at PMAI conference at Goa during 30-31 January, 2003.

4. **S.B.Chandrasekhar**, V.Mahender, A.Shiv Kumar, R.Sundaresan, " Effect of atmosphere in the sintering of heavy alloys", Proceedings of PM²TEC-2002 conference held at Orlando, Florida, USA, 16-21 June 2002.
5. **S.B.Chandrasekhar**, A.Shiv Kumar, R.Sundaresan, "Improved sintering of WC-6%Co system by the addition of Nano sized Nickel particles", presented at PMAI-2001, MREC- Jaipur, during 21-23 February 2001.
6. K.Malobika, **S.B.Chandrasekhar**, A.Shiv Kumar, R.Sundaresan, "Sintering Studies on Iron Powders produced from Hematite and Magnetite", presented at PMAI-2000, IIT-Madras, Chennai, during 3-4 February 2000.

a. Conference proceedings:

1. R. Naresh Kumar, Balaji Padya, **S.B. Chandrasekhar**, P.K. Jain, V.V.S.S. Srikanth, and K. Bhanu Sankara Rao, "Morphological, Structural and Phase Characteristics of Conventionally Sintered MWCNTs/Cu Composite", Proceeding of the "International Conference on Advanced Nanomaterials & Emerging Engineering Technologies" (ICANMEET-2013).
2. R. Mariappan, S. Kennady, **S.B.Chandrasekhar**, S.Kumaran, and T.Srinivasa Rao, "Studies on Microstructure and Mechanical Properties of Vacuum Sintered Stainless Steels", Transactions of PMAI 2009.
3. G.V.S. Nageswara Rao, M. Hanumantha Rao, **S.B. Chandrasekhar**, and R. Sundaresan, "Influence of hot dip galvanizing on corrosion protection of sintered ferrous components", Trans. Indian Inst. Met. Vol. 59, No. 3, June 2006, pp. 423 – 429.
4. **S.B. Chandrasekhar**, V. Mahendar, A. Sivakumar, and R. Sundaresan, "Effect of atmosphere on the sintering of heavy alloys", in "Advances in Powder Metallurgy and Particulate Materials 2002", MPIF, 2002, Vol.13, pp.201-210.

b. Affiliation to Professional societies:

Powder Metallurgical Association of India (PMAI)
Materials Research Society of India (MRSI)
Magnetics Society of India (MSI)

c. Photograph (soft Copy)



(You may please note that lectures delivered by scientists / officers at various events may also be included in their personal profile/ biodata---Priya)