

**Name**

S.B. Chandrasekhar

**Designation**

Scientist "D"

**Qualification**

B.E. Metallurgy (Pursuing PhD at MEMS, IITB)

**Experience**

1998 – 1999	Graduate Engineer Trainee Nagarjuna Fertilizers and Chemicals Limited Scientist
1999 – Till date	Scientist, ARCI

**Research areas of interest**

Tungsten based heavy alloys, cemented carbides, metal matrix nanocomposites

**List of Journal Publications**

1. 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", Journal of Magnetism and Magnetic materials, Vol. 345, 2013, pp. 239-242.
2. S. Mahendra kumar, K. Murugan, S.B. Chandrasekhar, Neha Habalkar, M. Krishna, B.S. Satyanarayana, Giridhar Madras, "synthesis and characterization of nano silicon and titanium nitride powders using atmospheric microwave plasma technique", J. Chem. Sci. (Indian Academy of Sciences) Vol. 124, No.3, 2012, p. 557–563.
3. K. Murugan, S.B. Chandrasekhar, J. Joardar, " Nanostructured  $\alpha/\beta$ -tungsten by reduction of  $WO_3$  under microwave plasma", Int. Journal of Refractory Metals and Hard Materials, Vol. 29 (2011) 128–133.
4. Dibyendu Chakravarty, B.V. Sarada, S.B. Chandrasekhar, K. Saravanan, T.N. Rao, "A novel method of fabricating porous silicon", Materials Science and Engineering A 528 (2011) 7831– 7834

5. R. Mariappan, S. Kumaran, T. Srinivasa Rao, S. B. Chandrasekhar, "Microstructure and mechanical properties of duplex stainless steels sintered in different atmospheres", Powder Metallurgy, Vol. 54, No.3, 2011, pp. 236 – 241.
6. 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. Vol. 25, Issue 2, 2007, P. 144-152.
7. 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.

### Conference presentations

1. S.B.Chandrasekhar, S. Sudhakar Sharma, S. Shanthanu Madge, T. Narasinga Rao, "Synthesis and Consolidation of Cu-Al<sub>2</sub>O<sub>3</sub> 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 PM<sup>2</sup>TEC-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.

### Conference proceedings

1. 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.

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.

### **Affiliation to Professional Societies**

1. Powder Metallurgical Association of India (PMAI)
2. Materials Research Society of India (MRSI)
3. Magnetics Society of India (MSI)

### **Contact information**

Centre for Nanomaterials

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