

**Name**

Dr. Bhaskar Prasad Saha

**Qualification**

Ph.D. in Metallurgical Engineering ( IISc,  
Bangalore )

**Designation**

Scientist "E" and Team Leader

**Experience**

1991-1993                      Production Engineers in Cemented Carbide Industry

1993 - Till date                Scientist at ARCI

**Research areas of interest**

Non – oxide ceramic based structural and optical components for space and hypersonic space vehicles Cellular Ceramics (Honeycomb and Foam) Solid Oxide Fuel cells, Thermal shock, abrasion and wear resistant materials

**List of journal publication**

1. "Load dependent indentation behaviour of  $\beta$ -SiAlON and  $\alpha$  Silicon Carbide"  
P. Barik , D.C. Jana and B. P. Saha  
Journal of Advanced Ceramics, Vol.2(2)p-185-192 ,2013
2. "Comparative Evaluation of Thermal Conductivity of Zirconia solid and honeycomb structures"  
B. P. Saha, R. Johnson and V. Jayaram  
Experimental Heat Transfer, Vol 25(4),p267-281,2012
3. "Investigation of Compaction Behaviour of Alumina Nano Powder"  
B. P. Saha, Vinoth Kumar, S.V.Joshi, Avinash Balakrishnan, Christophe, Louis Martin  
Powder Technology, Vol.224,p90-95,2012

4. "Comparative Nano Particle Size Characterisation Of EEW Alumina Using Various Measurement Techniques"  
B. P . Saha, J Mukhopadhyay and R Johnson  
Particulate Science and Technology, Vol.30(6),p517-532,2012
5. "Modelling of Compaction and Green Strength of Aggregated Ceramic Powders"  
Avinash Balakrishnan, Christophe Louis Martin, B. P. Saha, Shrikant Joshi  
Journal of American Ceramic Society (2011 ) 94(4) :10461052
6. "Effect of particle size in aggregated and agglomerated ceramic powders"  
A Balakrishnan, P Pizette, C L Martin, S V Joshi, B. P. Saha..  
Acta Mater. 58, 802 - 812 2010
7. "Micro structural control of stabilized zirconia ceramics (8YSZ) through modified conventional sintering methodologies"  
K. Rajeswari, A.Rajasekhar Reddy, U. S. Hareesh, B.P.Saha and R. Johnson,  
Science of Sintering, 42, 2010, 91-97, 2010.
8. "Effect of Relative Density on the Compressive Flow Behaviour of Cordierite and Cordierite : Mullite Honeycombs"  
B.P. Saha, Sweety Kumari, N. Eswara Prasad and Roy Johnson  
Transactions of the Indian Institute of Metals (2010) 63:701-706,
9. "Solid state reactions of cordierite precursor oxides and effect of substitution of CaO on the thermal expansion behaviour of cordierite honeycomb structures"  
R. Johnson, I. Ganesh, B.P. Saha, G.V.N. Rao and Y.R. Mahajan  
Journal of Materials Science, 38 (2003) 2953-2961
10. "Microwave assisted solid-state reaction synthesis of  $MgAl_2O_4$  spinel powders"  
I. Ganesh, B. Srinivas, R. Johnson, B.P. Saha and Y.R. Mahajan,  
Journal of European Ceramic Society, 24 (2) (2004) 201-207
11. "Rheometric studies on cordierite-mullite precursor mix for extrusion of honeycomb structures"  
Setu Chako, Roy Johnson, B.P. Saha, I Ganesh, M. Vijaykumar and Y.R. Mahajan  
Transaction of Indian Ceramic Society 63(2)2004
12. "Studies on energy absorption characteristics of cordierite-mullite honeycombs"  
Roy Johnson, Vipin Jain, S.V. Kamat, I. Ganesh, B.P. Saha and Y.R. Mahajan,  
Journal of Advanced Materials, 35 (3) (2003) 3-8
13. 'Effect of rubber encapsulation on the comparative mechanical behavior of ceramic honeycombs with foams'

- Vipin Jain, R. Johnson, I. Ganesh, B.P. Saha and Y.R. Mahajan,  
Materials Science and Engineering A347 (2003) 109-122
14. "Glimpses of ceramics – ARCI's perspectives"  
N. Thiyagarajan, R. Johnson, B.P. Saha, Y.S. Rao, S. Kumar, I. Ganesh and Y.R. Mahajan,  
Proceedings of US-Japan Workshop (2002) on "Low cost production of ceramics and related materials", Osaka, Japan, pp. 49 – 57, (2002)
  15. "A new sintering aid for magnesium aluminate spinel"  
I.Ganesh, S. Bhattacharjee, B. P. Saha, R. Johnson, and Y. R. Mahajan,  
Ceramics International, 27 (7) (2001) 773-779
  16. "Thermal anisotropy in sintered cordierite monoliths"  
B.P. Saha, Roy Johnson, I. Ganesh, G.V.N. Rao, S. Bhattacharjee, and Y.R. Mahajan  
Materials Chemistry and Physics, 67 (1-3) (2001) 140-145
  17. "Liquid Phase sintering of T15 and T42 High Speed Steel Composites Containing Ti (C, N)"  
B. P. Saha and G. S. Upadhyaya  
Powder Metallurgy International, Vol. 24, No. 6, 1993
  18. "Liquid Phase sintering of T15 and T42 High Speed Steel Composites containing  $TiB_2$ "  
B. P. Saha and G. S. Upadhyaya  
Journal of Material Processing Technology, Vol. 36, 1993
  19. "Properties of Sintered T15 and T42 High Speed Steels Pradipta K. Kar"  
B. P. Saha and G.S. Upadhyaya  
Powder Metallurgy International, Vol. 29, No. 2, 1993
  20. "High-Temperature Sintering of Iron-Copper-Graphite System"  
B.P. Saha, K.P. Rao and T.P. Bagchi  
Transaction of Powder Metallurgy Association of India,  
Vol. 21, December 1994
  21. "High-Purity, Fully Dense Iron Strips by Powder Rolling"  
B. P. Saha, K.P.Rao and T.P. Bagchi  
Transaction of Powder Metallurgy Association of India,  
Vol. 21, December 1994

## List of patents

1. An improved method for making honeycomb extrusion die and a process for producing Ceramic honeycomb structures using the die  
Iouri Fomichev, I.Ganesh B.P. Saha, Roy Johnson, N. Thiyagarajan, Y.R. Mahajan, and V. Mahender. (Indian Patent. No. 198045, Dated : 3 -07-01)
2. New Composite Material ( Ceramic Honeycomb based)having good Shock Attenuating Properties,Roy Johnson, B.P.Saha and YR Mahajan (Indian Patent. No. 194524 Dated 06-05-98)
3. An improved process for the production of dense magnesium aluminate spinel grains, I.Ganesh, Subir Bhattacharjee, B.P. Saha, Roy Johnson, and Y.R. Mahajan,(Indian Patent. No. 200272 Dated 07-01-99)
4. Improved process for the preparation of magnesium aluminate spinel grain,M.C.S. Rao, Y.R. Mahajan, S. Bhattacharjee, Roy Johnson, B.P. Saha, and I Ganesh,(Indian Patent. No. 198208 Dated 06-07-00)
5. An improved process for preparing ceramic crucibles having high thermal shock resistance and high slag penetration resistance useful for carbon and sulfur analysis of ferrous alloys and steel samples and the ceramic crucibles so prepared,B.P. Saha, , S. Bhattacharjee, I. Ganesh and Roy Johnson, Y.R. Mahajan (Indian Patent. No.2007700 Dated 2 0-09-00)
6. An Indirectly Heated Catalytic Convertor for use in Vehicles,  
G.S.Bhattacharjee, Roy Johnson, B.P.Saha, (Indian Patent. No. 185433 Dated August 25, 1994)
7. Improved additive composition useful for the preparation of alumina based abrasion resistant material having improved wear properties and methods for their preparation  
B.P. Saha, Roy Johnson, I. Ganesh, S. Bhattacharjee, and Y.R. Mahajan (Appl. No. 122/MAS/2000, Date of filing: 18 February, 2000)
8. Ceramic Honeycomb Based Energy Efficient Air Heater, V.V.S. Rao Roy Johnson, B.P.Saha and YR Mahajan, (Indian Patent. No. 2007787 Dated 07-01-99)

### **Affiliation to Professional Societies**

1. Member American Ceramic Society
2. Life Member, Indian Ceramic Society

### **Awards and honors**

1. Received the Best product Award as a team member for the thin walled Honeycomb structures during POWMET-99 during the international conference and annual technical meeting of Powder Metallurgy Association of India, 1999.
2. Received the Best paper Award as a co-author for presentation on the mechanical behaviour of cordierite-Mullite honeycomb with foams during 13<sup>th</sup> Annual General meeting of Material Research Society of India, February 2002
3. Received the Best paper Award as a co-author for presentation on the Rheometric Studies on cordierite-Mullite precursor mix for extrusion of honeycombs during the 66<sup>th</sup> Annual Session of Indian Ceramic Society. December 2002

### **Contact information**

Center for Non Oxide Ceramics

ARCI, Balapur, Hyderabad-500005, India

Ph.No. 91-40-24457107 /2324

Mob. 9885901318

Fax : 91-40-24442699

E-mail : bpsaha@arci.res.in