







# Dr. B. S. Sundar Daniel

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## **BIOSKETCH:**

### 1. Educational Details

- Ph.D., IIT Kanpur, Composite Materials 1997
- ME (Int), Metallurgy, IISc Bangalore 1992
- BSc, Physics, MCC (Autonomous), Madras University 1988

### 2. Professional Background

- Assistant Professor, Department of Metallurgical & Materials Engineering and Centre of Nanotechnology. 01 Jun 2004 - 01 Sep 2009
- Professor and Head, Department of Mechanical Engineering, KCG College of Technology, Anna University, Chennai. 01 Mar 2003 - 31 May 2004
- Professor, Department of Metallurgical & Materials Engineering, IIT Roorkee 01 Apr 2014 - Present
- Visiting Scientist, Technische Facultaet, Christian Albrechts Universitaet, Kiel, Germany 01 Jul 2001 - 31 Jan 2003
- Post-doctoral Fellow, Institute for Solid State and Materials Research (IFW), Dresden, Germany 01 Jan 2000 - 30 Jun 2001
- Project Engineer, IIT Kanpur 01 Jan 1998 - 31 Dec 1999

## **RESEARCH:**

- Insitu Aluminium alloy matrix composites by hybrid processing of melts 26 Feb 2013  
CSIR (14.92 Lakh)
- A feasibility study to process Steel Foam 21 Nov 2013  
Naval Research Board (24.91 Lakh)

### Publications:

- Strengthening mechanisms in ultrasonically processed aluminium matrix composite with in-situ Al<sub>3</sub>Ti by salt addition 2018  
R Gupta, GP Chaudhari, BSS Daniel\* | Elsevier  
Journal: Composites Part B-Engineering Pages: 27-34 , Volumes: 140 ,
- Strengthening Mechanisms in Al<sub>3</sub>Zr-Reinforced Aluminum Composite Prepared by Ultrasonic Assisted Casting 2021

- Impression creep behaviour of ultrasonically processed in-situ Al<sub>3</sub>Zr-Al alloy composite in as-cast condition  
2020  
R Gupta, BSS Daniel\* | Elsevier  
Journal: Materials Characterization Pages: 110594 , Volumes: 169 ,
- Physical Simulation and Processing Map of Aluminum 7068 Alloy  
2019  
N Raja, BSS Daniel | ASTM International  
Journal: Materials Performance and Characterization Pages: 1050-1061 , Volumes: 8 (5) ,
- Impression creep behaviour of ultrasonically processed in-situ Al<sub>3</sub>Ti reinforced aluminium composite  
2018  
R Gupta, BSS Daniel\* | Elsevier  
Journal: Materials Science and Engineering A Pages: 257-266 , Volumes: 733 ,
- Physical Simulation and Processing Map of Aluminum 7068 Alloy  
2019  
N Raja, BSS Daniel | ASTM International  
Journal: Materials Performance and Characterization Pages: 1050-1061 , Volumes: 8 (5) ,
- Synthesis of nanocrystalline Co–Ni alloys by precursor approach and studieson their magnetic properties  
2011  
S Panday, BSS Daniel\*, P Jeevanandam\* | Elsevier  
Journal: Journal of Magnetism and Magnetic Material Pages: 2271–2280 , Volumes: 323 ,
- Microstructural evolution of as-cast Th–U alloys  
2016  
S Das\*, SB Roy, GP Chaudhari, BSS Daniel | Elsevier  
Journal: Progress in Nuclear Energy Pages: 285-296 , Volumes: 88 ,
- Characterization of microstructural, mechanical and thermophysical properties of Th-52U alloy  
2016  
S Das, S Kaity, R Kumar, J Banerjee, SB Roy, GP Chaudhari, BSS Daniel | Elsevier  
Journal: Journal of Nuclear Materials Pages: 223-234 , Volumes: 480 ,

Journal: Powder Technology Pages: 25-29 , Volumes: 275 ,

#### Books:

- MMC, CMC and Microstructural gradients by nitridation of Al alloys V. Jayaram, **B.S.S. Daniel**, N. Nagendra, H.R. Muralidhar, Advanced Materials '93, (1994) 621-624.
- Nanomaterials and Devices: Processing and Applications, Editors: S.Ray, S.K.Nath, A.Kumar, R.C.Agarwala, V.Agarwala, G.P.Chaudhari, **B.S.S.Daniel**, Trans Tech Inc. Switzerland, 2009.
- Advances in Materials Development: *A festschrift honouring Professor Subrata Ray*, Editor: **B.S.S. Daniel**, Materials Science Forum Vol. 736, Trans Tech Publications, Switzerland, 2012.
- Advances in Materials and Processing: Challenges and Opportunities, Editors: B.S.S. Daniel and G.P. Chaudhari, Advanced Materials Research, Vol. 585, Trans Tech Publications, Switzerland, 2012.

#### **HONORS AND AWARDS:**

##### Memberships:

- Indian Institute of Metals 01 Jun 2004 - Present

#### **TEACHING ENGAGEMENTS:**

- Structural Metallurgy ( MT-104 ) Spring
- Composite Materials ( MT522 ) Autumn
- Electron Microscopy ( MTN 533 ) Autumn

