







Dr. B. S. Sundar Daniel

Professor and Head of the Department

Room no:

Telephone no:

Email: sundar.daniel@mt.iitr.ac.in



Metal Foam, Nanomaterials, Metal Matrix Composites, Metallic Glasses, Superplasticity

BIOSKETCH:

1. Educational Details

- Ph.D., IIT Kanpur, Composite Materials1997
- ME (Int), Metallurgy, IISc Bangalore1992
- BSc, Physics, MCC (Autonomous), Madras University1988

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 Roorkee01 Apr 2014 - Present
- Visiting Scientist, Technische Facultaet, Christian Albrechts Universitaet, Kiel, Germany01 Jul 2001 - 31 Jan 2003
- Post-doctoral Fellow, Institute for Solid State and Materials Research (IFW), Dresden, Germany01 Jan 2000 - 30 Jun 2001
- Project Engineer, IIT Kanpur01 Jan 1998 - 31 Dec 1999

RESEARCH:

- Insitu Aluminium alloy matrix composites by hybrid processing of melts26 Feb 2013
CSIR (14.92 Lakh)
- A feasibility study to process Steel Foam21 Nov 2013
Naval Research Board (24.91 Lakh)

Publications:

- Strengthening mechanisms in ultrasonically processed aluminium matrix composite with in-situ Al3Ti by salt addition2018
R Gupta, GP Chaudhari, BSS Daniel* | Elsevier
Journal: Composites Part B-Engineering Pages: 27-34 , Volumes: 140 ,

- Strengthening Mechanisms in Al3Zr-Reinforced Aluminum Composite Prepared by Ultrasonic Assisted Casting2024

- Impression creep behaviour of ultrasonically processed in-situ Al₃Zr-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 Al₃Ti 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 studies on 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 amd 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

[Home](#)[Academics](#)[Research](#)[People](#)[Contact Us](#)