


Biodata

Name	Dr. Rapaka S Chandra Bose	
Designation	Scientist B	
Educational qualification	Integrated M.Sc. Chemistry from Kakatiya University, Warangal, Telangana Ph.D. Chemistry from CSIR-National Aerospace Laboratories, Bangalore, Karnataka & Visvesvaraya Technological University, Belagavi, Karnataka	
Research area	Sensors: Plasmonic based biosensors & gas sensors; Chemi-resistive gas sensors; Paper-pencil based EBT thermal sensors; Transparent touch sensors & temperature sensors Energy Harvesting: Solar to thermal (LSPR); Thermal to Electrical (Thermoelectric) Magnetic Materials: Radar Applications (Microwave absorption) Ionic Liquids: Metal Separation Applications (Radioactive metals)	
Recognised Awards/Honors/Fellow	<ul style="list-style-type: none"> • CSIR-UGC NET in June 2012 • GATE in March 2013 	
Projects	On-going Projects: 1. Morphology Dependent Localized Surface Plasmon Resonance Based Photo-Thermoelectric Generator for Wearable Energy Harvesting Applications with a project outlay of Rs.31.05 lakhs funded by SERB-DST (as PI)	
Publications/Patents (Past 5 years)	(1) A. Sandeep, G. Ganesh, S. Swathi, N. Rajesh, M. Sreelatha, K.N. Prasanna Kumari, B. Brahmanandam, Rapaka S C Bose , D. Ravinder, Jada Shanker, N. PavanKumar, Synthesis, Structural, Magnetic and Optical Studies of Eu doped Ni-Zn Nano Ferrites, <i>Ceramic International</i> , 2022 (Just Accepted). https://doi.org/10.1016/j.ceramint.2022.07.071 . IF=5.532 (2) S.S. Hegde, Rapaka S C Bose , B.S. Surendra, Vinoth S., Prashantha Murahari, and K. Ramesh, "SnS Nanocatalyst: Malachite Green Degradation and Electrochemical Sensor Studies", <i>Materials Science & Engineering B</i> , 283, 115818, 2022 . https://doi.org/10.1016/j.mseb.2022.115818 . IF=3.407 (3) Srikanth Ponnada, Maryam Sadat Kiai, Demudu Babu Gorle, Rapaka S C Bose , Venkatachalam Rajagopal, Bhagirath Saini, Murugavel Kathiresan, Annapurna Nowduri, Rahul Singhal, Frank Marken, Manickam Anbu Kulandainathan, Karuna Kar Nanda, and Rakesh K Sharma, "Recent Status and Challenges in Multifunctional Electrocatalysis Based on 2D MXenes", <i>Catalysis Science & Technology</i> , 2022 (Just Accepted). https://doi.org/10.1039/D2CY00428C . IF=6.177 (4) Srikanth Ponnada, Demudu Babu Gorle, Rapaka S Chandra Bose , Maryam Sadat Kiai, Chikkili Venkateswara Raju,	

Meghali Devi, Nilgun Baydogan, Karuna Kar Nanda, Frank Marken and Rakesh K Sharma, "Current Insight into 3D Printing in Solid-State Lithium-Ion Batteries: A Perspective", *Batteries & Supercaps*, **2022** (Just Accepted). <https://doi.org/10.1002/batt.202200223>. **IF=6.043**

- (5) Dilip Kumar Meena, **Rapaka S C Bose**, S Vinoth, K Annapurna, and Ramesh karuppanan, "Impact of Melt Solidification Rate on Structural and Thermoelectric Properties of n-type Bi₂Te₃ Alloy", *Applied Physics A*, 128, 528, **2022**. <https://doi.org/10.1007/s00339-022-05662-2>. **IF=2.983**
- (6) Abanti Nag, **Rapaka S C Bose**, Venu K S, and Hema Singh, "Influence of particle size on magnetic and electromagnetic properties of hexaferrite synthesised by sol-gel auto combustion route", *Ceramic International*, 48, 15303, **2022**. <https://doi.org/10.1016/j.ceramint.2022.02.064>. **IF=5.532**
- (7) Dilip Kumar Meena, **Rapaka S C Bose**, and K Ramesh, "Melt Solidification Rate-Dependent Structural and Thermoelectric Properties of Sb₂Te₃/Te Nanocomposites", *Journal of Alloys & Compounds*, 902, 163767, **2022**. <https://doi.org/10.1016/j.jallcom.2022.163767>. **IF=6.371**
- (8) **Rapaka S C Bose**, and K Ramesh, "Study of Anisotropic Thermal conductivity in Textured Thermoelectric Alloys by Raman Spectra", *RSC Advances*, 11, 24456, **2021**. <https://doi.org/10.1039/D1RA04886D>. **IF=4.036**
- (9) **Rapaka S C Bose** and Abanti Nag, "Effect of Homologue Impurity Phases on Thermoelectric Transport Properties of Heavily Doped ZnO", *Journal of Physics D: Applied Physics*, 54 375502, **2021**. <https://doi.org/10.1088/1361-6463/ac0e5b>. **IF=3.409**
- (10) **Rapaka S C Bose**, Dilip Kumar Meena, Paolo Mele, and K Ramesh, "Role of grain alignment and oxide impurity in thermoelectric properties of textured n-type Bi-Te-Se alloy", *Journal of Physics D: Applied Physics*, 54, 235503, **2021**. <https://doi.org/10.1088/1361-6463/abeb3e>. **IF=3.409**
- (11) K. Deva Arun Kumar, Dilip K Meena, **Rapaka S C Bose**, Ramcharan Meena, Prashantha Murahari, Paolo Mele and K. Ramesh, "Optical and thermoelectric properties of Sb₂Te₃/ZnTe nanostructured composites", *Journal of Alloys & Compounds*, 865, 158621, **2021**. <https://doi.org/10.1016/j.jallcom.2021.158621>. **IF=6.371**
- (12) **R.S.C. Bose**, V. Sheoran, P.S.H. Vaishnavi, D.S. Prem, S. Chakravarty, R. Raman, D.A. Babu, Pratibha Saharan, S. Nair and J. Ram, "Anisotropic thermoelectric transport in textured Sb_{1.5}Bi_{0.5}Te₃ nanomaterials synthesized by facile bottom-up physical process", *Journal of Alloys & Compounds*, 859, 157828, **2021**. <https://doi.org/10.1016/j.jallcom.2020.157828>. **IF=6.371**
- (13) **Rapaka S. C. Bose**, and Abanti Nag, "Transport properties of p-type Ca_{3-x}Ln_xCo₄O₉-Ag (Ln = Lu, Yb; 0.1 ≤ x ≤ 0.2) oxides", *Ceramics International*, 46(3), 3203-3208, **2020**.

	<p>https://doi.org/10.1016/j.ceramint.2019.10.024. IF=5.532</p> <p>(14) Rapaka S. C. Bose, and Abanti Nag, “Enhanced thermoelectric performance of $\text{Ca}_{1-x}\text{RE}'_{x/2}\text{RE}''_{x/2}\text{MnO}_3$ ($\text{RE}'=\text{RE}''=\text{Dy, Gd, Yb, \& Lu}$; $0.05 \leq x \leq 0.1$) through tuning the density of the system”, <i>ACS Applied Energy Materials</i>, 1 (7), 3151–3158, 2018. https://doi.org/10.1021/acsaem.8b00368. IF=6.959</p>
Google scholar link	<p>https://scholar.google.co.in/citations?user=tNnjGPAAAAAJ&hl=en</p>