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Designation: Scientist 'F'

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#### **Educational Qualifications:**

B.Sc. (Physics), Sri Sathya Sai Institute of Higher Learning,  
Prasanthinilayam  
M.Sc. (Physics), Sri Venkateswara University, Tirupathi  
M. Phil. (Physics) Central University of Hyderabad, Hyderabad  
Ph.D.(Applied Chemistry), Faculty of Engineering, The University  
of Tokyo, Japan

#### **Professional Experience:**

Lecturer in Physics and Electronics, Osmania University 1993-1997  
Postdoctoral fellow: JSPS Post-doctoral Fellow at Faculty of Engineering, The University  
of Tokyo during 2000-2002  
JST Post-doctoral Researcher under Pre-venture project at The University of Tokyo,  
Japan - 2002-2003  
Woman Scientist (WOS-A) under DST - 2006-2009  
Scientist 'D' Centre for Solar Energy Materials (CSEM), ARCI, Hyderabad - 2009-2013  
Scientist 'E' CSEM, ARCI, Hyderabad - 2013-2019  
Scientist 'F' CSEM, ARCI, Hyderabad - 2019-2021  
Scientist 'F' CNM, ARCI, Hyderabad - 2021-present.

#### **Areas of Research Interest:**

- Electrochemical Synthesis of Nanostructured Materials, Graphene-based

- Nanocomposites for energy conversion and storage applications
- Metal-oxide based nanostructures for Pseudocapacitor applications
  - Materials for Li-S and Na-S batteries
  - Nanostructured materials and coatings for Biomedical applications.
  - TiO<sub>2</sub> based Nanostructured materials for photovoltaic applications.
  - Electrochemical process for nanocoatings in photoelectrochemical applications
  - Nanocoatings and UVC based disinfection systems for anti-viral applications.
  - Synthesis and Applications of Conducting boron-doped diamond Thin-films and microelectrodes.
  - CIGS and CZTS based thin-film Solar Cells by using electrodeposition technique.
  - Highly textured and nanotwinned copper foils by pulsed electrodeposition technique

### **Performance indicators:**

Number of publications and proceedings: **61**

H-Index: **25** (Scopus)

Number of patents (issued/filed): **10**

Book Chapters: **5**

Technologies transferred: **3**

Ph.Ds – Guided 2 (IIT-Hyderabad and University of Hyderabad) and Co-guided 2 more

Ph. D. students (University of Tokyo),

Ongoing: 2 (IIT-H and NIT-W)

Project students: 6 M. Tech. students and 5 B. Tech students. 2 M. Sc. students

### **List of Publications:**

1. **Sarada, BV**; Rao, TN; Tryk, DA; Fujishima, A, “Electrochemical characterization of highly boron-doped diamond microelectrodes in aqueous electrolyte” *Journal of The Electrochemical Society*, 146 (4) (1999) 1469-1471.
2. Fujishima, A; Rao, TN; Popa, E; **Sarada, BV**; Yagi, I; Tryk, DA, “Electroanalysis of dopamine and NADH at conductive diamond electrodes” *Journal of Electroanalytical Chemistry*, 473 (1-2) (1999) 179-185.
3. **Sarada, BV**; Rao, TN; Tryk, DA; Fujishima, A, “Electrochemical detection of serotonin using conductive diamond electrodes” *Chemistry Letters*, 11 (1999) 1213-1214.
4. **Sarada, BV**; Rao, TN; Tryk, DA; Fujishima, A, “Electroanalytical applications of conductive diamond electrodes” *New Diamond and Frontier Carbon Technology*, 9 (5) (1999) 365-377.

5. **Sarada, BV**; Rao, TN; Tryk, DA; Fujishima, A, "Electrochemical oxidation of histamine and serotonin at highly boron doped diamond electrodes" *Analytical Chemistry*, 72 (7) (2000) 1632-1638.
6. Chailapakul, O; Popa, E; Tai, H; **Sarada, BV**; Tryk, DA; Fujishima, A, "The electrooxidation of organic acids at boron-doped diamond electrodes" *Electrochemistry Communications*, 2 (6) (2000) 422-426.
7. Rao, TN; **Sarada, BV**; Tryk, DA; Fujishima, A, "Electroanalytical study of sulfa drugs at diamond electrodes and their determination by HPLC with amperometric detection" *Journal of Electroanalytical Chemistry*, 491 (1-2) (2000) 175-181.
8. Rao, TN; **Sarada, BV**; Tryk, DA; Fujishima A., Electrochemical oxidation of sulfa drugs at boron-doped diamond electrodes Conference: 6th International Symposium on Diamond Materials at the 196th Meeting of the Electrochemical-Society Location: HONOLULU, HI Date: OCT 17-22, 1999 Source: DIAMOND MATERIALS VI Book Series: ELECTROCHEMICAL SOCIETY SERIES Volume: 99 Issue: 32 Pages: 507-511 Published: 2000
9. **Sarada, BV**; Rao, TN; Tryk, DA; Fujishima A, Electrochemical oxidation of histamine and serotonin at highly boron-doped diamond electrodes, Conference: 6th International Symposium on Diamond Materials at the 196th Meeting of the Electrochemical-Society Location: HONOLULU, HI Date: OCT 17-22, 1999 Source: DIAMOND MATERIALS VI Book Series: ELECTROCHEMICAL SOCIETY SERIES Volume: 99 Issue: 32 Pages: 502-506 Published: 2000
10. Fujishima, A; Rao, TN; **Sarada, BV**, Electroanalytical applications of bare and modified diamond electrodes Conference: 7th International Symposium on Diamond Materials Location: SAN FRANCISCO, CA Date: SEP 07, 2000, DIAMOND MATERIALS VII, PROCEEDINGS Book Series: ELECTROCHEMICAL SOCIETY SERIES Volume: 2002 Issue: 25 Pages: 127, 2001
11. Spataru, N; **Sarada, BV**; Popa, E; Tryk, DA; Fujishima, A, "Voltammetric determination of L-cysteine at conductive diamond electrodes" *Analytical Chemistry*, 73 (3) (2001) 514-519.
12. Terashima, C; Rao, TN; **Sarada, BV**; Tryk, DA; Fujishima, A, "Electrochemical oxidation of chlorophenols at a boron-doped diamond electrode and their determination by high-performance liquid chromatography with amperometric detection" *Analytical Chemistry*, 74 (4) (2002) 895-902.
13. Rao, TN; Loo, BH; **Sarada, BV**; Terashima, C; Fujishima, A, "Electrochemical detection of carbamate pesticides at conductive diamond electrodes" *Analytical*

*Chemistry*, 74 (7) (2002) 1578-1583.

14. Kondo, T; Einaga, Y; **Sarada, BV**; Rao, TN; Tryk, DA; Fujishima, A, "Homoepitaxial single-crystal boron-doped diamond electrodes for electroanalysis" *Journal of Electrochemical Society*, 149 (6) (2002) E179-E184.
15. Ivandini, TA; **Sarada, BV**; Terashima, C; Rao, TN; Tryk, DA; Ishiguro, H; Kubota, Y; Fujishima, A, "Electrochemical detection of tricyclic antidepressant drugs by HPLC using highly boron-doped diamond electrodes" *Journal of Electroanalytical Chemistry*, 521 (1-2) (2002) 117-126.
16. Spataru, N; **Sarada, BV**; Tryk, DA; Fujishima, A, "Anodic voltammetry of xanthine, theophylline, theobromine and caffeine at conductive diamond electrodes and its analytical application" *Electroanalysis*, 14 (11) (2002) 721-728.
17. Chailapakul, O; Siangproh, W; **Sarada, BV**; Terashima, C; Rao, TN; Tryk, DA; Fujishima, A, "The electrochemical oxidation of homocysteine at boron-doped diamond electrodes with application to HPLC amperometric detection" *Analyst*, 127 (9) (2002) 1164-1168.
18. Olivia, H; **Sarada, BV**; Shin, D; Rao, TN; Fujishima, A, "Selective amperometric detection of dopamine using OPPy-modified diamond microsensor system" *Analyst*, 127 (12) (2002) 1572-1575.
19. Shin, DC; **Sarada, BV**; Tryk, DA; Fujishima, A, "Application of diamond microelectrodes for end-column electrochemical detection in capillary electrophoresis" *Analytical Chemistry*, 75 (3) (2003) 530-534.
20. Terashima, C; Rao, TN; **Sarada, BV**; Fujishima, A, "Amperometric detection of oxidized and reduced glutathione at anodically pretreated diamond electrodes" *Chemistry Letters*, 32 (2) (2003) 136-137.
21. Terashima, C; Rao, TN; **Sarada, BV**; Spataru, N; Fujishima, A, "Electrodeposition of hydrous iridium oxide on conductive diamond electrodes for catalytic sensor applications" *Journal of Electroanalytical Chemistry*, 544 (2003) 65-74.
22. Terashima, C; Rao, TN; **Sarada, BV**; Kubota, Y; Fujishima, A, "Direct electrochemical oxidation of disulfides at anodically pretreated boron-doped diamond electrodes" *Analytical Chemistry*, 75 (7) (2003) 1564-1572.
23. Rao, TN; Ivandini, TA; Terashima, C; **Sarada, BV**; Fujishima, A, "Applications of bare and modified diamond electrodes in electroanalysis" *New Diamond and Frontier Carbon Technology*, 13 (2) (2003) 79-88.
24. Ivandini, TA; **Sarada, BV**; Terashima, C; Rao, TN; Tryk, DA; Ishiguro, H; Kubota, Y; Fujishima, A, "Gradient liquid chromatography of leucine-enkephalin

- peptide and its metabolites with electrochemical detection using highly boron-doped diamond electrode” *Journal of Chromatography B-Analytical Technologies in Biomedical and Life Sciences*, 791 (1-2) (2003) 63-72.
25. Ivandini, TA; **Sarada, BV**; Rao, TN; Fujishima, A, “Electrochemical oxidation of underivatized-nucleic acids at highly boron-doped diamond electrodes” *Analyst*, 128 (7) (2003) 924-929.
  26. Olivia, H; **Sarada, BV**; Honda, K; Fujishima, A, “Continuous glucose monitoring using enzyme-immobilized platinized diamond microfiber electrodes” *Electrochimica Acta*, 49 (13) (2004) 2069-2076.
  27. **Sarada B. V.**; Pavithra, CLP; Ramakrishna M.; Rao, TN.; Sundararajan G., “Highly (111) textured copper foils with high hardness and high electrical conductivity by pulse reverse electrodeposition” *Electrochemical and Solid State Letters*, 13(6) (2010) d40-d42.
  28. Chakravarty, Dibyendu; **Sarada, B. V.**; Chandrasekhar, S. B., Saravanan, K., Rao, T. N., A novel method of fabricating porous silicon, *Materials Science and Engineering A-Structural Materials Properties Microstructure and Processing*, Volume: **528** (2011) **7831-7834**.
  29. **Sarada B. V**, Radha L., Rao T. N., Surface Plasmon Resonance Enhanced Photoelectrochemical Studies at Gold-modified TiO<sub>2</sub> Nanotube Arrays. *Nanotech Insights*, January, 2012
  30. **B. V. Sarada**, Ch. L. P. Pavithra, M. Ramakrishna and Tata N. Rao, “Nanostructured copper foils by Pulse Reverse Electrodeposition for Interconnect Applications”, *Nanotech Insights*, Volume 4 (2013).
  31. Sreekanth Mandati, **Bulusu V. Sarada**, Suhash R. Dey and Shrikant V. Joshi, Pulse electrodeposition and characterization of CIGS thin-films for solar applications., Proceedings of ELAC-2013, Fifth ISEAC Triennial International Conference on Advances and Recent Trends in Electrochemistry, Hyderabad.
  32. Sreekanth Mandati; **Sarada, B V.**; Dey, Suhash R and Shrikant V. Joshi, Pulsed Electrodeposition of CuInSe<sub>2</sub> Thin Films with Morphology for Solar Cell Applications, *Journal of Electrochemical Society* , **160** (2013) **D173-D177**.
  33. Sreekanth Mandati, **Sarada, B V**, Suhash R. Dey, and Shrikant V. Joshi, Improved photoelectrochemical performance of Cu(In,Ga)Se<sub>2</sub> thin films prepared by pulsed electrodeposition, *J. Renewable and Sustainable Energy*, 5 (2013) 031602.
  34. Sreekanth Mandati, **Sarada, B V**, Suhash R. Dey, Shrikant V. Joshi, Two-step Pulsed Current Electrodeposition of CIGS Absorber Layers for Thin Film Solar Cells, *Materials Letters*, 118 (2014) 158.

35. Pavithra Ch.L.P., **Sarada B. V.**, Rajulapati K. V., Rao T. N., Sundararajan G., A New Electrochemical Approach for the Synthesis of Copper-Graphene Nanocomposite Foils with High Hardness, *Scientific Reports/Nature Publishing Group*, 4 (2014) Article No.4049.
36. Sreekanth Mandati, **Sarada B. V.**, Suhash R. Dey, Shrikant V. Joshi Photoelectrochemistry of Cu(In,Ga)Se<sub>2</sub> thin-films fabricated by sequential pulsed electrodeposition, *Journal of Power Sources*, 273 (2014) 149-157.
37. Sreekanth Mandati, **Sarada B V**, Suhash R. Dey, Shrikant V. Joshi Cu(In,Ga)Se<sub>2</sub>/CdS heterojunction with enhanced photoelectrochemical performance and stability – *Electronic Materials Letters*, 11 (2015) 618.
38. Ch. L. P. Pavithra, **B. V. Sarada**, M. Ramakrishna, Tata N. Rao, R. Koteswara Rao, G. Sundararajan, Texture-property correlation in copper foils with enhanced mechanical and electrical properties prepared by pulse reverse electrodeposition, *Crystal Growth and Design*, 15 (2015) 4448.
39. *Chokkakula L. P. Pavithra, B. V. Sarada* , Koteswararao V. Rajulapati , Tata N. Rao, G. Sundararajan Process Optimization for Pulse Reverse Electrodeposition of Graphene-Reinforced Copper Nanocomposites, , *Materials and Manufacturing Technologies*, 31 (11) (2016) 1439.
40. E Hari Mohan; **B. V. Sarada**; R. Venkata Ram Naidu; Girish Salian; K. Haridas Anulekha; B. V. Appa Rao and T. N. Rao Graphene-Modified Electrodeposited Dendritic Porous Tin Structures as Binder Free Anode for High Performance Lithium-Sulfur Batteries, , *Electrochimica Acta*, 219 (2016) 701.
41. S. Sakthivel, **B. V. Sarada** and Tata Narasinga Rao, Nanomaterials and Coatings for Concentrated Solar Thermal Power (CSP) Applications, *Nano Digest 8th Anniversary Issue 2016*.
42. P.M. Pratheeksha, E. Hari mohan , **B. V. Sarada**, M. Ramakrishna; K. Hembram; P.V.V. Srinvas; D. Paul Joseph, S. Anandan, T.N. Rao Core-shell carbon coating strategy for production of bulk carbon coated-conducting LFP for high energy density LIB applications, , *Physical Chemistry Chemical Physics*, 19 (2017) 175.
43. . Manasa, A. Jyothirmayi, T. Siva, **B. V. Sarada** M. Ramakrishna, S. Sathiyarayanan, K. V. Gobi , R. Subasri Nanoclay-based Self-Healing, Corrosion Protection Coatings on Aluminum, A356.0 and AZ91 Substrates, S, *Journal of Coatings Technology and Research* 14 (5) (2017) 1195-1208.
44. R. Subasri, S. Manasa, Swapnil H. Adsul, **B. V. Sarada**, Micro-Raman Spectroscopic Studies for Evaluation of Self-Healing Property of Corrosion Protection Coatings on Al and Mg alloys, Proceedings of CORCON 2017

45. Swapnil H. Adsul, K.R.C. Soma Rajua, **B. V. Sarada**, Shirish H. Sonawanec, R. Subasri, Evaluation of self-healing properties of inhibitor loaded nanoclay-based anticorrosive coatings on magnesium alloy AZ91D, *Journal of Magnesium alloys and Compounds*, 6(3) (2018) 299-308.
46. DivyaBoosagulla, Sreekanth Mandati, RamachandraiahAllikayala and **B. V. Sarada**, Room Temperature Pulse Electrodeposition of CdS Thin Films for Application in Solar Cells and Photoelectrochemical cells, *ECS Journal of Solid State Science and Technology*, 7(8) (2018) P440-P446.
47. Sreekanth Mandati, Suhash R. Dey, Shrikant V. Joshi and **B. V. Sarada**, Cu(In,Ga)Se<sub>2</sub> Films with Branched Nanorod Architectures Fabricated by Economic and Environmental-friendly Pulse-reverse Electrodeposition Route, *ACS Sustainable Chemistry and Engineering*, 6 (11) (2018) 13787-13796.
48. Copper Chalcopyrites for Solar Energy Applications, Sreekanth Mandati, Prashant Misra, **B. V. Sarada** and Tata Narasinga Rao, *Transactions of The Indian Institute of Metals*, 72 (2) (2019) 271-288.
49. E. Hari Mohan, Katchala Nanaji, Srinivasan Anandan, **B. V. Sarada**, Mantripragada Ramakrishna, A. Jyothirmayi, B.V. Appa Rao, Tata Narasinga Rao, One-step induced porous graphitic carbon sheets as supercapacitor electrode material with improved rate capability, *Materials Letters*, 236 (2019) 205–209.
50. Nanaji Katchala, Hari Mohan E., **B. V. Sarada**, Varadaraju U.V., Tata N. Rao, Anandan Srinivasan, One step synthesized hierarchical spherical porous carbon as an efficient electrode material for lithium ion battery, *Materials Letters*, 237 (2019) 156-160.
51. Sreekanth Mandati, Suhash R. Dey, Shrikant V. Joshi and **B. V. Sarada** Two-dimensional CuIn<sub>1-x</sub>Ga<sub>x</sub>Se<sub>2</sub> Nano-flakes by Pulse Electrodeposition for Photovoltaic Applications, *Solar Energy*, 181 (2019) 396.
52. Tejassvi Pakki, Hari Mohan E., Neha Y. Hebalkar, A. Jyothirmayi, **B. V. Sarada**, Srinivasan Anandan, Krishna Mohan Mantravadi, Tata N. Rao, Flexible and freestanding carbon nanofiber matt derived from electrospun polyimide as an effective interlayer for high performance Li-S batteries, *Journal of Materials Science*, 54 (2019) 9075.
53. S. Mandati and **B. V. Sarada**, Electrodeposited Chalcopyrite CuInGaSe<sub>2</sub> Absorbers for Solar Energy Harvesting, *Materials Science for Energy Technologies* 3, 440 (2020).
54. S. Mandati, P. Misra, B. Divya, T. N. Rao, and **B. V. Sarada**, Economic Pulse Electrodeposition for Flexible CuInSe<sub>2</sub> Solar Cells, *Materials for Renewable and Sustainable Energy* 9(3), 1 (2020).

55. Fight Against COVID-19: ARCI's Technologies for Disinfection, **B. V. Sarada**, R. Vijay, R. Johnson, T. Narasinga Rao and G. Padmanabham, *Transactions of The Indian National Academy of Engineering*, Invited Article (2020) 349-354.
56. P. Samhita, K. Nanaji, S. Mandati, T. N. Rao, S. K. Martha and **B. V. Sarada**, Electrodeposited NCO Nanosheets with Oxygen Vacancies: An Efficient Electrode Material for Hybrid Supercapacitors, *Batteries and Supercapacitors*, 2020, 3, 1209– 1219.
57. P. Misra, S. Mandati, T. N. Rao and **B. V. Sarada**, A multi-layer Cu-In-Ga precursor sputtering approach for improving structural quality of selenized CIGS absorber layer, *Materials Today Proceedings*, Article in Press, <https://doi.org/10.1016/j.matpr.2020.09.545>
58. P. Misra, S. R. Atchuta, S. Mandati, **B. V. Sarada**, T. N. Rao and S. Sakthivel, A non-vacuum dip coated SiO<sub>2</sub> interface layer for fabricating CIGS solar cells on stainless steel foil substrates, *Solar Energy*, 214 (2021) 471-477.
59. S. Mandati, P. Misra, B. Divya, T. N. Rao, and **B. V. Sarada**, Solar Energy Harvesting through Photovoltaic and Photoelectrochemical means from Appropriately Prepared CuInGaSe<sub>2</sub> Absorbers by Low-cost and Environmentally Benign Pulse Electrodeposition Technique, *Industrial & Engineering Chemistry Research (ACS)*, **Accepted**.
60. Unique combination of nanocrystalline Co-Cu-Fe-Ni-Zn soft magnetic thin films: An advancement in high entropy alloys, **Suhash** Ranjan Dey, Chokkakula L. P. Pavithra, Reddy Kunda Siri Kiran Janardhana; Kolan Madhav Reddy; Chandrasekhar Murapaka; Joydip Joardar, **B. V. Sarada**; Rameez R. Tamboli; Yixuan Hu; Yumeng Zhang; Xiaodong Wang, *Scientific Reports (Accepted)*.
61. Nanaji, Katchala; Tata, Narasinga Rao; **B. V. Sarada**; Varadaraju, Upadhyayula; Srinivasan, Anandan A Novel Approach to Synthesize Porous Graphene Sheets by using Potassium Hydroxide as Pore Inducing Agent as well as a Catalyst for Supercapacitors with Ultra-Fast Rate Capability, *Renewable Energy (Accepted)*.
62. Electrodeposited Manganese Oxide based Redox Mediator Driven 2.2 V High Energy Density Aqueous Supercapacitor, Samhita Pappu, Tata N. Rao, Surendra K. Martha, **B. V. Sarada**, *Energy*, Under Revision.
63. Pulse electrodeposited zinc sulfide as an eco-friendly buffer layer for the cadmium-free thin-film solar cells, Divya Boosagulla, Sreekanth Mandati, Prashant Misra, Ramachandraiah Allikayala and **B. V. Sarada**, Under Review.
64. Role of Tartaric acid in Growth Mechanism of Pulse Electrodeposited CdS and ZnS Thin Films, Divya Boosagulla, Sreekanth Mandati, Ramachandraiah A and **B. V. Sarada**, *Thin Solid Films*, Under Revision.

**List of Book chapters:**



1. **B. V. Sarada**, Terashima, C, Ivandini T A, Rao, T N, Fujishima, A, “Diamond Electrochemistry”, Elsevier B V, 2005
2. Olivia, H, **B. V. Sarada**, Rao, T N, Fujishima, A, “Diamond Electrochemistry”, Elsevier B V, 2005
3. Nanomanufacturing for Aerospace Applications, S. Anandan, H. Neha, **B. V. Sarada**, T. N. Rao, *Aerospace Materials and Technologies*, Edited by: **Prasad**, N. Eswara, **Wanhill**, R. J. H, Volume 2, 2016. Pp85.
4. Sreekanth Mandati, Suhash R. Dey, Shrikant V. Joshi and **B. V. Sarada**, Pulsed Electrochemical Deposition of CuInSe<sub>2</sub> and Cu(In,Ga)Se<sub>2</sub> Semiconductor Thin Films, *Semiconductors - Electrochemical Growth and Characterization*. ISBN no: 978-953-51-5589-8, 109-132, (2018).
5. Sustainable Photovoltaics, David Ginley, Rakesh Agrawal, -----, **Bulusu Sarada**, -----, Juser Vasi, Yanping Wang, and Yue Wu, [Lecture Notes in Energy](#) 39. 25, Ginley D., Chattopadhyay K. (eds) Solar Energy Research Institute for India and the United States(SERIIUS), Springer, Cham.<https://doi.org/10.1007/978-3-030-33184-9-2>

#### **List of Patents:**

1. Method for measuring concentration of subject material using conductive diamond electrode, and apparatus for the same Patent Number: **JP2004101437-A; 2002**
2. Method for measuring analyte concentration using conductive diamond electrode and apparatus therefor, **JP3703787-B2** Publication date: 2004
3. Detection method of inspection compound, and diamond electrode and device used therefore. Patent Number: JP2003121410, Publication date: 2003-04-23
4. Electrochemical Assay using an electroconductive diamond coated electrode, and electrochemical assay system based thereon. Patent Number: **EP1055926A2**.
5. Method for determining concentration of xanthin type compound and sensor for use therein. **WO0198766A1, JP2002504478-X: 2001**
6. Flow cell for electrochemical measurement and electrochemical measuring device, **JP2001050924-A, 1999**
7. Electrochemical analysis using electrode coated with conductive diamond, and electrochemical analysis system therewith. **CN1278063-A, 2000**
8. Novel copper foils having high hardness and conductivity and a pulse reverse electrodeposition method for their preparation. **Indian Patent granted: 306501 (2019)**
9. An Improved method of preparing bulk porous silicon compacts. Indian patent filed. **IN201100912-I1**

- 10.** A Novel Electrochemical Method for Manufacturing CIGS Thin-Films Containing Nanomesh-like Structures, **Indian Patent granted: 337455 (2020)**

**Technologies Co-developed and Transferred to industry for Disinfection of SARS**

**CoV 2:**

1. Developed a UVC-Trolley for disinfection of hospitals to fight against COVID-19 in collaboration with University of Hyderabad and Mekins Industries Ltd. Hyderabad
2. Developed a UVC cabinet for disinfection of objects in research laboratories and commercial establishments in collaboration with Mekins Industries Ltd.
3. Developed UVC-baggage scanner (KritiScan UV) for a rapid disinfection of baggage at airports, in collaboration with Vehant Industries Ltd., New Delhi.

**Awards/Honours:**

- Student Fellowship/ Post-doc Fellowship, Japan Society for the Promotion of Science, Japan (1999).
- Post Doctoral Fellowship/ Japan Society for the Promotion of Science, Japan (2000).
- Fellowship under Woman Scientist Scheme, Department of Science and Technology (DST), India (2006)

**Responsibility during COVID-19:**

Validation of UVC based disinfection Systems under ICMR guidelines

**Affiliation to Professional Societies:**

1. Member of 'The Electrochemical Society of India'
2. Member of 'MRSI, India'
3. Editorial Board member for 'Scientific Reports –Nature Publishing Group'

