Research Statistics

Suresh Bandi, Ph.D.

PhD in Metallurgical & Materials Engineering

Web: sites.google.com/view/sureshbandi

Google Scholar ‖ ResearchGate ‖ ORCID ‖ LinkedIn

Journal publications: **13** (First author:12)

Patents: **02**; Book Chapters: **04**

Conference Presentations: **14**

Citations: **177**; h-index:**7**; i10-index: **6**

List of Journal Publications

2023 14. **Suresh Bandi**, Chandrasekar M Subramaniyam, Flaviano García-Alvarado, Ajeet K. Srivastav, Formation pathway of $(VO)_xV_2O_5.nH_2O$ derived V_2O_5 Nanosheets and its potential as high-capacity cathode materials for Sodium-ion batteries. (Under communication).

2022 13. **Suresh Bandi** and Ajeet K. Srivastav, "Formation mechanism of nanocrystalline W derived cubic-$H_{0.5}WO_3$", *Scripta Materialia* (2022) 208:114363.

2021 12. **Suresh Bandi** and Ajeet K. Srivastav, **"**Unraveling the growth mechanism of $W_{18}O_{49}$ nanowires on W surfaces", *CrystEngComm* (2021) 23:6559.

11. **Suresh Bandi** and Ajeet K. Srivastav, "Unveiling the crystallographic origin of mechanochemically induced monoclinic to triclinic phase transformation in WO_3", *CrystEngComm* (2021) 23:1821.

10. **Suresh Bandi** and Ajeet K. Srivastav, "Review: Oxygen deficient tungsten oxides", *Journal of Materials Science* (2021) 56:6615.

9. **Suresh Bandi** and Ajeet K. Srivastav, "Understanding the growth mechanism of hematite nanoparticles: The role of maghemite as an intermediate phase", *Crystal Growth & Design* (2021) 21:16.

2020 8. **Suresh Bandi**, N. Naga Suresh, Toshali Bhoyar, and Ajeet K. Srivastav, "$WO_3.1/3H_2O$ nanorods/nanoplates: Growth mechanism and CO_2 uptake", *Materialia* (2020) 14:100943.

7. **Suresh Bandi**, Devthade Vidyasagar, Shaik Adil, Manish Kumar Singh, Joysurya Basu, and Ajeet K. Srivastav, "Crystallite size induced bandgap tuning in WO_3 derived from nanocrystalline tungsten", *Scripta Materialia* (2020) 176:47.

6. Ajeet K. Srivastav*, **Suresh Bandi,** Abhishek Kumar, and B.S. Murty "Microstructure evolution and densification during spark plasma sintering of nanocrystalline W-5wt.%Ta alloy", *Philosophical Magazine Letters* (2020) 100:442.

2019 5. **Suresh Bandi**, Vikram Hastak, Chokkakula L.P. Pavithra, Sanjay Kashyap, Dhananjay Kumar Singh, Suaib Luqman, D. R. Peshwe, and Ajeet K. Srivastav, "Graphene/chitosan-functionalized iron oxide nanoparticles for biomedical applications", *Journal of Materials Research* (2019) 34:3389.

4 Girija Suresh, Pradyumna Kumar Parida, **Suresh Bandi**, S. Ningshen, "Effect of carbon content on the low temperature sensitization of 304L SS and its corrosion resistance in simulated ground water", *Materials Chemistry and Physics* (2019) 226:184.

3. **Suresh Bandi**, Syamsai Ravuri, D.R. Peshwe, and Ajeet K. Srivastav "Graphene from discharged dry cell battery electrodes", *Journal of Hazardous Materials* (2019) 366:358.

2018 2. Vikram Hastak*****, **Suresh Bandi***, Sanjay Kashyap, Shilpi Singh, Suaib Luqman, Mangesh Lodhe, D.R. Peshwe, and Ajeet K. Srivastav, "Antioxidant efficacy of chitosan/graphene functionalized superparamagnetic iron oxide nanoparticles" *Journal of Materials Science: Materials in Medicine* (2018) 29:154. (*Vikram Hastak and Suresh Bandi contributed equally)

1. **Suresh Bandi**, Vikram Hastak, D.R. Peshwe, and Ajeet K. Srivastav, "*In-situ* TiO_2/rGO nanocomposites for CO gas sensing", *Bulletin of Materials science* (2018) 41:115.

List of Patents

2021 2. "A process for synthesis of nanocrystalline cubic hydrogen tungsten bronze powder" (IN421722, 17/02/2023) Inventors: 1. **Suresh Bandi**, and 2. Ajeet Kumar Srivastav.

2020 1. "Graphene from waste battery electrodes" (IN332793, 24/03/2020)

Inventors: 1. Ajeet Kumar Srivastav, 2. **Suresh Bandi** and 3. Dilip. R. Peshwe.

List of Book Chapters

2022 4. **Suresh Bandi** and Ajeet K. Srivastav**,** "Chapter 6 – Graphene extraction from the battery waste", Graphene extraction from waste: A sustainable synthesis approach for graphene and Its derivatives, **Elsevier** (In production).

3 **Suresh Bandi** and Ajeet K. Srivastav, "Chapter 8 – Carbon nanotubes/graphene based biosensors", Advanced nanocarbon materials: Applications for health care, 1st edition, CRC press (2022).

2. Vikram Hastak*, **Suresh Bandi***, and Ajeet K. Srivastav, "Chapter 5 – Magnetic iron oxide nanoparticles for biomedical applications", Advanced materials for biomechanical applications", 1st edition, CRC Press (2022). (* Vikarm Hastak and Suresh Bandi contributed equally)

2020 1. **Suresh Bandi** and Ajeet K. Srivastav, "Chapter 7 – Graphene-based chemiresistive gas sensors", CAC: Analytical applications of graphene for the comprehensive analytical chemistry, Elsevier**, *Volume 91 (2020), 149-173***.

List of Conference (Oral/Poster) Presentations

2022 7. **Invited G C Jain lecture** for best thesis**:** Formation pathways and growth mechanisms of metal oxide/graphene nanostructures, International Union of Materials Research Societies-International Conference in Asia (**IUMRS-ICA 2022**) and 33rd AGM of MRSI and 4th Indian Materials Conclave, Indian Institute of Technology Jodhpur, 19-23 Dec 2022.

2020 6. **Oral presentation:** Graphene from discharged dry cell battery electrodes, International Virtual Conference on Advances in Functional Materials (**AFM 2020**), Kalinga Institute of industrial technology, Bhubaneswar, 26-28 August 2020.

2019 5. **Poster presentation:** Grain size dependent lattice parameter variation in nanocrystalline solids: The role of non-equilibrium grain boundary structure, 26th International Symposium on Metastable, Amorphous and Nanostructured Materials (**ISMANAM-2019**), The rain tree, Anna salai, Chennai, 8-12 July 2019.

4. **Poster presentation:** Extracting graphene from waste dry cell battery electrodes, International Conference on Energy and Environmental Challenges (**CE_2C-2019**), Visvesvaraya national institute of technology – Nagpur, 18-19 Jan 2019.

2018 3. **Oral presentation:** *In-situ* TiO_2/rGO Nanocomposites for Gas Sensing Applications, A national conference on Intra and inter Disciplinary Blend of Chemical Engineers CHEMIX'18, Visvesvaraya national institute of technology – Nagpur, 7-8 April 2018.

2. **Poster presentation:** *In-situ* TiO_2/rGO Nanocomposites for CO Detection, 29th annual general meeting of Materials Research Society of India (MRSI) and a national symposium on "Advances in Functional and Exotic Materials (AFEM)", Bharathidasan University – Tiruchirappalli, 14-16 Feb 2018.

1. **Poster presentation:** α-Fe_2O_3/rGO nanocomposites for Gas Sensing Applications, Conference on Advances in Catalysis for Energy and Environment (CACEE-2018), TIFR – Mumbai, 10-12 Jan 2018.

Contributed conference presentations

2022 7. Suriya Prakash, **Suresh Bandi**, Ajeet K. Srivastav, **Oral presentation:** Understanding the formation of WVOx nanostructures for functional applications, International Conference on Powder Metallurgy (PM 22), Powder Metallurgy Association of India – Mumbai, 18-20 April 2022.

6. Vishal Pawar, Nitin Linge, **Suresh Bandi**, Ajeet K. Srivastav, **Oral presentation:** Understanding the role of experimental parameters on electrochemically exfoliated graphene, International Conference on Powder Metallurgy (PM 22), Powder Metallurgy Association of India – Mumbai, 18-20 April 2022.

2019 5. Nitturu Naga Suresh, **Suresh Bandi,** Ajeet K. Srivastav, **Oral presentation:** Synthesis of WO_{3-x} and WO_{3-x}/VO_x Nanostructures for Functional Applications, **(2nd Prize)**, A national conference on Intra and inter Disciplinary Blend of Chemical Engineers CHEMIX'19, Visvesvaraya national institute of technology – Nagpur 30-31 March 2019.

2018 4. Ajeet K. Srivastav, **Suresh Bandi**, Sanjay Kashyap, **Poster presentation:** Oriented attachment growth of Fe_2O_3 nanoparticles, International Conference on Microscopy (**EMSI**), Mayfair Convention Center, 18 - 20 July 2018

3. Ujjwal Pathak, **Suresh Bandi**, Govindachetty Saravanan, D.R. Peshwe, Nitin K Labhsetwar, Ajeet K. Srivastav, **Poster presentation:** α-Fe_2O_3/rGO Nanocatalysts for the Oxidation of Volatile Organic Compounds, **(2nd Prize)**, Third International Conference on Nanomaterials: Synthesis, Characterization, and Applications (**ICN**), IIUCNN, Mahatma Gandhi University – Kottayam, 11-13 May 2018.

2. Vikram Hastak, **Suresh Bandi**, Sanjay Kashyap, Shilpi Singh, Suaib Luqman, D.R. Peshwe, Ajeet K. Srivastav, **Oral presentation:** Antioxidant efficacy of chitosan/graphene − iron oxide nanocomposites, International Symposium on Functional Materials (**ISFM**), Hotel Shivalik view – Chandigarh, 13-15 April 2018.

1. Vedasri Khavala, Vaibhav Sharma, Gurudev Tadas, **Suresh Bandi**, Ajeet K. Srivastav, **Poster presentation:** Ti_3^+ Self-Doped TiO_2 for Photocatalytic Applications, A conference on Recent Advances in Materials for Sustainable Energy (**RAMSE**), IIT – Dhanbad, 3-5 March 2018.