

## **Biodata**

Name	Dr. Bhagyashri Bhangare	
Designation	Scientist 'B'	
Educational Qualification	<p><b>M.Sc. Physics</b> from Savitribai Phule Pune University (SPPU), Pune, Maharashtra</p> <p><b>Ph.D. Physics</b> from Savitribai Phule Pune University (SPPU), Pune, Maharashtra</p>	
Research Area	<p><b>Gas Sensors:</b> Chemiresistive gas sensors, Electronic Nose (E-nose) for toxic gases detection</p> <p><b>Energy Storage:</b> Solid State Batteries</p> <p><b>Organic-Inorganic Nanohybrids Materials:</b> Metal Oxides, 1D and 2D materials</p>	
Recognized Awards/Honors/Fellow	Member of Sakura Science Club, Japan Science and Technology (JST), Japan.	
Publications/Patents <b>(Past 5 years)</b>	<p>➤ <b>Research Papers:</b></p> <p><b>(1)</b> Ankita Pathak, S Samanta, B. Bhangare, Sinjumol K Rajan, J Bahadur, NS Ramgir, M Kaur, A Singh, AK Debnath, “Nanocomposites of ZnO Nanostructures and Reduced Graphene Oxide Nanosheets for NO<sub>2</sub> Gas Sensing”, ACS Applied Nano Materials, 6, 9, 7649-7657, <b>2023</b>.  <a href="https://doi.org/10.1021/acsanm.3c00117">https://doi.org/10.1021/acsanm.3c00117</a>. <b>IF=6.14</b></p> <p><b>(2)</b> KR Sinju, <b>BK Bhangare</b>, AK Debnath, NS Ramgir, “Quick Classification and Prediction of CO<sub>2</sub>, NH<sub>3</sub>, H<sub>2</sub>S and NO<sub>2</sub> Gases from Their Mixtures Using ZnO Nanowires based Electronics Nose”, Journal of Electronics Materials, 52, 4686-4698, <b>2023</b>.  <a href="https://doi.org/10.1007/s11664-023-10419-5">https://doi.org/10.1007/s11664-023-10419-5</a>. <b>IF=2.047</b></p> <p><b>(3)</b> <b>Bhagyashri Bhangare</b>, K. R. Sinju, Niranjan S. Ramgir, Suresh Gosavi, A. K. Debnath, “Noble metal doped SnO<sub>2</sub>/RGO nanohybrids based E-nose for H<sub>2</sub>, H<sub>2</sub>S and NO<sub>2</sub> Detection”, Materials Science in Semiconductor Processing, 147, 106706, <b>2022</b>.  <a href="https://doi.org/10.1016/j.mssp.2022.106706">https://doi.org/10.1016/j.mssp.2022.106706</a>, <b>IF=4.644</b></p> <p><b>(4)</b> K.R. Sinju, <b>B. Bhangare</b>, A. Pathak, S.J. Patil, N.S. Ramgir, A.K. Debnath, D. K. Aswal, “ZnO nanowires-based e-nose for the detection of H<sub>2</sub>S and NO<sub>2</sub> toxic gases”, Materials Science in Semiconductor Processing, 137, 106235, <b>2022</b>,  <a href="https://doi.org/10.1016/j.mssp.2021.106235">https://doi.org/10.1016/j.mssp.2021.106235</a>, <b>IF=4.644</b></p>	

- (5) Bhagyashri Bhangare**, Niranjan S. Ramgir, Ankita Pathak, K. R. Sinju, Shweta Jagtap, N. Suzuki, K.P.Muthe, A.K.Debnath, C. Terashima, D.K.Aswal, S.W.Gosavi, A. Fujishima, “Role of sensitizers in imparting the selective responses of SnO<sub>2</sub>/RGO based nanohybrids towards H<sub>2</sub>S, NO<sub>2</sub>, H<sub>2</sub>”, Materials Science in Semiconductor Processing, 105, 104726, 2020  
<https://doi.org/10.1016/j.mssp.2019.104726>, **IF=4.644**
- (6) Bhagyashri Bhangare**, Niranjan S. Ramgir, Shweta Jagtap, A.K. Debnath, K.P. Muthe, Chiaki Terashima, Dinesh K. Aswal, S.W. Gosavi, Akira Fujishima, “XPS and Kelvin probe studies of SnO<sub>2</sub>/RGO nanohybrids based NO<sub>2</sub> sensors”, Applied Surface Science, 487, 918-929, 2019,  
<https://doi.org/10.1016/j.apsusc.2019.05.176>, **IF=7.392**

➤ Book Chapters:

- (1) Bhagyashri Bhangare**, Sinjumol K Rajan, Niranjan S Ramgir, Dinesh Kumar Aswal, Anil Krishna Debnath, “Highly Sensitive Room-Temperature Gas Sensors Based on Organic-Inorganic Nanofibers”, 1D Semiconducting Hybrid Nanostructures: Synthesis and Applications in Gas Sensing and Optoelectronics, 75—96, Wiley, ,2022.  
<https://doi.org/10.1002/9783527837649.ch4>
- (2) Bhagyashri Bhangare**, K. R. Sinju, S. J. Patil, N. S. Ramgir, A. K. Debnath, “Introduction to nano-E-nose”, Nanotechnology bases E-noses, 29-55, Woodhead Publishing Series in Electronics and Optical Materials, , 2023.  
<https://doi.org/10.1016/B978-0-323-91157-3.00012-X>
- (3) K.R.Sinju, B.K.Bhangare**, S.J.Patil, N.S.Ramgir, A.K.Debanth, D.K.Aswal, “Multiarray nanopatterned (Top-down nanolithography) E-nose”, Nanotechnology bases E-noses, 101-124, Woodhead Publishing Series in Electronics and Optical Materials, 2023.  
<https://doi.org/10.1016/B978-0-323-91157-3.00007-6>
- (4) Bhangare Bhagyashri**, Ramgir Niranjan S., Sinju K.R, Pathak A., Jagtap S., Debnath A.K., Muthe K.P., Gosavi S.W., “Reduced Graphene Oxide (rGO)-Based Nanohybrids as Gas Sensors: State of the Art”, Functional Nanomaterials, 189-217, Springer Nature Singapore Pte Ltd. 2020,  
[https://doi.org/10.1007/978-981-15-4810-9\\_8](https://doi.org/10.1007/978-981-15-4810-9_8)

Google Scholar Link	<a href="https://scholar.google.com/citations?user=p-PQcekAAAAJ&amp;hl=en">https://scholar.google.com/citations?user=p-PQcekAAAAJ&amp;hl=en</a>
---------------------	---