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<p>Teaching / Research Experience:</p> <p>Dr. Satyabrata Mohapatra is currently working as Assistant Professor of <i>Nanoscience and Technology</i> in University School of Basic and Applied Sciences, GGS Indraprastha University, Delhi. He did his M.Sc. in Physics from <i>Utkal University, Bhubaneswar</i> and completed M.Phil. (Diploma in Advanced Physics) from <i>Institute of Physics (IOP), Bhubaneswar</i>. Dr. Mohapatra obtained his Ph.D from <a href="#">Institute of Physics (IOP), Bhubaneswar, India</a>. During Ph.D he worked on ion beam engineering of plasmonic nanostructures and metal gettering in silicon. Thereafter he moved to <a href="#">Inter University Accelerator Centre (IUAC), New Delhi</a> as Postdoctoral Research Associate where he worked extensively on plasmonics and explored various optical and biomedical applications of plasmonic nanostructures and nanocomposites. He has worked as visiting scientist in <i>SAINT, South Korea</i> and postdoctoral visiting fellow in <i>CSNSM, University of Paris, Orsay, France</i>. His current research activities include synthesis of multifunctional hybrid Nanostructures and Plasmonic Nanocomposites and ion beam engineering of nanostructured materials for diverse optical, photocatalytic and biomedical applications, development of SERS based chemical- and bio-sensors, Gas sensors and Solar cells.</p> <p>He has special interest in developing and teaching nanotechnology and ion beam technology curriculum. His current research is focused on development of multifunctional hybrid plasmonic nanostructures and plasmonic nanocomposites for applications including photocatalytic water purification, SERS based chemical and biosensors, Gas sensors and solar cells. He has authored and co-authored more than <b>80</b> articles in prestigious journals including Applied Physics Letters, Physical Chemistry Chemical Physics, Plasmonics, Nanotechnology and Scripta Materialia. Apart from his high impact research, he has been reviewer of more than <b>70</b> reputed international journals from Royal Society of Chemistry, American Chemical Society, American Institute of Physics, Springer, Elsevier and worked Editor of book "Noble metal-metal oxide hybrid nanoparticles: fundamentals and applications" (Elsevier). He has more than <b>80</b> research publications in <i>international journals</i> and <b>80</b> conference papers, <b>1</b> national journal paper and <b>1</b> book chapter to his credit.</p>	

Dr. Mohapatra has more than **18** years of research experience in synthesis and ion beam engineering of nanostructured materials and plasmonic nanocomposites, defect engineering for Si device processing and nanotechnology. He has more than **11** years of experience in teaching various M.Tech., B.Tech. programs of GGSIP University, New Delhi and Ph.D Training Program of IUAC, New Delhi. He has **3** ongoing research projects funded by IUAC and DAE-BRNS and completed **16** research projects funded by DST, UGC, IUAC and DAE-BRNS, India. He has active international collaborations with Univ. of Kiel, Germany, NIMS, Japan and St-Petersburg State Polytechnical University, Russia. He has guided **3** Ph.D. Thesis, **51** M.Tech. Thesis and currently **4** Ph.D. research scholars including **1** DST Women Scientist and **1** INSPIRE Fellow and **2** M.Tech. Nanoscience and Technology Students are working under his supervision.

#### **Selected Recent Publications in International Journals (2007 onwards):**

- 1) Kavita Sahu, Sini Kuriakose, Jaspal Singh, Biswarup Satpati and **Satyabrata Mohapatra**, Facile synthesis of ZnO nanoplates and nanoparticle aggregates for highly efficient photocatalytic degradation of organic dyes, *Journal of Physics and Chemistry of Solids* 121 (2018) 186-195. (Impact Factor: 2.059)
- 2) Jaspal Singh, Saif A. Khan, J. Shah, R. K. Kotnala and **Satyabrata Mohapatra**, Nanostructured TiO<sub>2</sub> thin films prepared by RF magnetron sputtering for photocatalytic applications, *Applied Surface Science* 422, 953-961 (2017). (Impact Factor: 3.387)
- 3) Jaspal Singh, Kavita Sahu, A. Pandey, Mohit Kumar, Tapas Ghosh, B. Satpati, T. Som, S. Varma, D. K. Avasthi and **Satyabrata Mohapatra**, Atom beam sputtered Ag-TiO<sub>2</sub> nanocomposite thin films for photocatalytic applications, *Applied Surface Science* 411, 347-354 (2017). (Impact Factor: 3.387)
- 4) Sini Kuriakose, Kavita Sahu, Saif A. Khan, A. Tripathi, D. K. Avasthi and **Satyabrata Mohapatra**, Au-ZnO plasmonic nanohybrids for highly efficient photocatalytic degradation of organic dyes, *Optical Materials* 64, 47-52 (2017). (Impact Factor: 2.238)
- 5) Jaspal Singh, Kavita Sahu, Sini Kuriakose, Nishant Tripathi, D. K. Avasthi and **Satyabrata Mohapatra**, Synthesis of nanostructured TiO<sub>2</sub> thin films with highly enhanced photocatalytic activity by atom beam sputtering, *Advanced Materials Letters* 8, 107-113 (2017). (Impact Factor: 1.46)
- 6) Jaspal Singh, Biswarup Satpati and **Satyabrata Mohapatra**, Structural, optical and plasmonic properties of Ag-TiO<sub>2</sub> hybrid plasmonic nanostructures with enhanced photocatalytic activity, *Plasmonics* 12, 877-888 (2017). (Impact Factor: 2.139)
- 7) **Satyabrata Mohapatra**, Enhanced gettering of gold at end-of-range defects in high energy ion implanted silicon, *Advanced Materials Letters* 8, 999-1003 (2017). (Impact Factor: 1.46)
- 8) **Satyabrata Mohapatra**, Plasmonic properties of Ag nanoparticles embedded in GeO<sub>2</sub>-SiO<sub>2</sub> matrix by atom beam sputtering, *Physical Chemistry Chemical Physics* 18, 3878-3883 (2016). (Impact Factor: 4.449)
- 9) Neha Bhardwaj, Akhilesh Pandey, Biswarup Satpati, Monika Tomar, Vinay Gupta and **Satyabrata Mohapatra**, Enhanced CO gas sensing properties of Cu doped SnO<sub>2</sub> nanostructures prepared by a facile wet chemical method, *Physical Chemistry Chemical Physics* 18, 18846-18854 (2016). (Impact Factor: 4.449)
- 10) Neha Bhardwaj, Akhilesh Pandey, D. K. Avasthi and **Satyabrata Mohapatra**, Ion beam engineering of morphological, structural and optical properties of Au/SnO<sub>2</sub> hybrid nanostructured thin films, *Journal of Alloys and Compounds* 680, 155-162 (2016). (Impact Factor: 3.133)
- 11) Neha Bhardwaj, Akhilesh Pandey and **Satyabrata Mohapatra**, Effects of MeV heavy ion irradiation on structural, morphological and optical properties of nanostructured SnO<sub>2</sub> thin films prepared by thermal evaporation, *Journal of Alloys and Compounds* 656, 647-653 (2016). (Impact Factor: 3.133)
- 12) Renu Kumari, P. K. Kulriya, V. Grover, R. Shukla, K. Saravanan, **S. Mohapatra**, A. K. Tyagi, D. K. Avasthi, Radiation stability of Gd<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub>: effect of stoichiometry and structure, *Ceramics International* 42, 103-109

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- 13) Neha Bhardwaj and **Satyabrata Mohapatra**, Structural, optical and gas sensing properties of Ag-SnO<sub>2</sub> plasmonic nanocomposite thin films, *Ceramics International* 42, 17237-17242 (2016). (Impact Factor: 2.986)
- 14) P. A. Karaseov, V. S. Protopopova, K. V. Karabeshkin, E. N. Shubina, M. V. Mishin, J. Koskinen, **S. Mohapatra**, A. Tripathi, D. K. Avasthi, A. I. Titov, Swift heavy ion irradiation of metal containing tetrahedral amorphous carbon films, *Nucl. Instr. and Meth. B* 379, 162-166 (2016). (Impact Factor: 1.124)
- 15) Sini Kuriakose, Biswarup Satpati and **Satyabrata Mohapatra**, Highly efficient photocatalytic degradation of organic dyes by Cu doped ZnO nanostructures, *Physical Chemistry Chemical Physics* 17 (2015) 25172-25181. (Impact Factor: 4.493)
- 16) Sini Kuriakose, Biswarup Satpati and **Satyabrata Mohapatra**, Effects of solvent on structural, optical and photocatalytic properties of ZnO nanostructures, *Advanced Materials Letters* 6, 1104-1110 (2015). (Impact Factor: 1.9)
- 17) Jaspal Singh and **Satyabrata Mohapatra**, Thermal evolution of structural, optical and photocatalytic properties of TiO<sub>2</sub> nanostructures, *Advanced Materials Letters* 6, 924-929 (2015). (Impact Factor: 1.9)
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- 24) Bandita Mohapatra, Reena Kaintura, Jaspal Singh, Sini Kuriakose, and **Satyabrata Mohapatra**, Biosynthesis of high concentration, stable aqueous dispersions of silver nanoparticles using *Citrus limon* extract, *Advanced Materials Letters* 6, 228-234 (2015). (Impact Factor: 1.9)
- 25) H. Amekura, **S. Mohapatra**, U. B. Singh, S. A. Khan, P. Kulriya, N. Ishikawa, N. Okubo, and D. K. Avasthi, Shape elongation of Zn nanoparticles in silica irradiated with swift heavy ions of different species and energies: Scaling law and some insights on the elongation mechanism, *Nanotechnology* 25, 435301 (2014). (Impact Factor: 3.821)
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- 31) Neha Bhardwaj, Sini Kuriakose and **S. Mohapatra**, Structural and optical properties of SnO<sub>2</sub> nanotowers and interconnected nanowires prepared by carbothermal reduction method, *Journal of Alloys and Compounds* 592, 238-243 (2014). (Impact Factor: 2.999)
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- 36) Y. K. Mishra, R. Adelung, G. Kumar, M. Elbahri, **S. Mohapatra**, R. Singhal, A. Tripathi, D. K. Avasthi, Formation of self-organized silver nanocup-type structures and their plasmonic absorption, *Plasmonics* 8, 811-815 (2013). (Impact Factor: 3.526)
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- 38) **S. Mohapatra**, Y. K. Mishra, A. M. Warriar, Reji Philip, S. Sahoo, A. K. Arora, D. K. Avasthi, Plasmonic, low frequency Raman and non-linear optical limiting studies in copper-silica nanocomposites, *Plasmonics* 7, 25-31 (2012). (Impact Factor: 3.526)
- 39) Y. K. Mishra, V. S. K. Chakravadhanula, V. Hrkac, S. Jebil, D. C. Agarwal, **S. Mohapatra**, D. K. Avasthi, L. Kienle, R. Adelung, Crystal growth behaviours in Au-ZnO nanocomposite under different annealing environments and photoswitchability, *Journal of Applied Physics* 112, 064308 (2012). (Impact Factor: 2.21)
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- 43) D. K. Avasthi, Y. K. Mishra, R. Singhal, D. Kabiraj, **S. Mohapatra**, B. Mohanta, Nivedita K. Gohil, N. Singh, Synthesis of plasmonic nanocomposites for diverse applications, *Journal of Nanoscience and Nanotechnology* 10, 2705 (2010). (Impact Factor: 2.194)
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- 47) R. Singhal, D. C. Agarwal, Y. K. Mishra, **S. Mohapatra**, D. K. Avasthi, A. K. Chawla, R. Chandra, J. C Pivin, Swift heavy ion induced modifications of optical and microstructural properties of silver-fullerene C<sub>60</sub> nanocomposite, *Nucl. Instr. and Meth. B* 267, 1349-1352 (2009). (Impact Factor: 1.211)
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- 50) Y. K. Mishra, **S. Mohapatra**, R. Singhal, D. C. Agarwal, D. K. Avasthi, S. B. Ogale, Au-ZnO: A tunable localized surface plasmonic nanocomposite, *Applied Physics Letters* 92, 043107 (2008). (Impact Factor: 3.726)
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- 54) Hardeep Kumar, Y. K. Mishra, **S. Mohapatra**, D. Kabiraj, J. C. Pivin, S. Ghosh and D. K. Avasthi, Compositional analysis of atom beam co-sputtered metal-silica nanocomposites by Rutherford backscattering spectrometry, *Nucl. Instr. and Meth. B* 266, 1511-1516 (2008). (Impact Factor: 1.211)
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