

## Dr. Minakshi Jha, M.Sc., B.Ed. Ph.D.

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**Department:** Chemistry

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**For more information-**

<https://scholar.google.com/citations?user=yDYjbKcAAAAJ&hl=en>



### Objective:

Development of novel photo catalyst or nanodrug for environmental, pharmaceutical, biological application and contribute to nation building.

### Research interests:

- Advanced functional nonmaterial, theranostic materials, scientific strategy and understanding to develop clean & green sustainable technology through green synthesis, tracing & targeting malignant cells & study of Anti-cancer applications.
- Fabrication of Photo catalyst for environmental application.
- Polymer nanocomposite synthesis and mechanical properties investigation for various commercial applications.

### Academic profile

- Doctoral degree (Ph.D.) from Department of **Chemistry**, University of Mumbai.
- M.Sc. with specialization in **Physical Chemistry** with 77.87% (achieved 1<sup>st</sup> rank).
- B.Sc. (**Chemistry**) with 76.7% from M. D. D. M. College, Muzaffarpur & B.Ed (79.7%).
- HSC from B.I.E.C. Patna with 78%.

### Professional working experiences

- Currently working at Homi Bhabha National Institute, BARC, Mumbai as post doctoral senior research associate.
- Worked as Assistant Professor in Vivekanand education society's institute of technology, Chembur, Mumbai.
- Completed HBNI-INSTN Joint course on "corrosion degradation in light water reactors".
- Worked as a PGT (Chemistry) in Kendriya Vidyalaya Mankhurd, Mumbai.
- Completed one-week virtual international faculty development program in "Advanced topics in chemical sciences" organized by department of Chemistry, Nallamutu Gounder Mahalingam college, Pollachi from 15 May 2020 to 21 May 2020.
- Completed three days online faculty development program on "Recent Advancement in Nanomaterial and Green Technology for Sustainable Engineering" by Rajiv Gandhi Institute of Technology, Mumbai, held during 6th October 2021 to 8th October 2021.

- Participated in national level webinar on “Light pollution” organized by Dept. of Physics in collaboration of science association, KLE science & commerce college held on 2<sup>nd</sup> December, 2021.
- Participated in national level webinar on “Light pollution” organized by Dept. of Physics in collaboration with science association, KLE Science & commerce held on 30<sup>th</sup> Nov. 2021.
- Participated in 102<sup>nd</sup> Indian Science Congress, University of Mumbai, 3-7 January, 2015.
- Participated in UGC-SAP sponsored National conference on “Advances and innovations in chemical Sciences” (NCAICS-2015), 12-13 February 2015, Department of Chemistry, University of Mumbai.
- Participated in “8th Indian Youth Science Congress” 16-18 February 2017, University of Mumbai.
- Participated in national workshop on “Recent Trends in Surface Physics and Phenomena, 21<sup>st</sup>-22<sup>nd</sup> March 2017, Department of Physics, University of Mumbai.
- Participated in national workshop on “Advances in Nano Drug Delivery System” 23- 24<sup>th</sup> March 2017, Department of Physics, University of Mumbai.
- Participated in GIAN-A Short term course on “Recent Advances in Microfluidics, Biochemical & Saw sensors for Human Healthcare” 19th-25<sup>th</sup> October 2016.
- Completed One Week international faculty development program on “Innovative Trends in Engineering and Technology” organized by IQAC Shree. L. R. Tiwari College of Engineering from 25 th May to 29th May, 2020.
- Participated in two days’ international level web- conference on “covid-19: Perspective of Science & Challenges” organized by Siddharth college of Arts, Science & Commerce on 19-20 June, 2020.
- Participated in national webinar on “Research initiative at Graduate & Post- Graduate level” organized by Department of Chemistry, KLE Science & commerce college on 24 June 2020.
- Participated in the Faculty Development Program on 'Artificial Intelligence in classroom teaching' organized by department of science of J.V.M.'s Degree College in association with the magic data on 6 June 2020.
- Participated in the webinar of “Art of leaving” organized by IEEE committee with the department of electronics & telecommunications of KJSIEIT, held on 28-29 May 2020.
- Attended the series of V-Reach’20 webinars, organized by VESIT-IQAC in association with VESIT-IIC, Chembur, Mumbai.
- Participated in one-day national online seminar on “Research Writing and Enhancing Visibility” held on 21st May, 2020 organized jointly by IQAC & Library, S.P. Mandali's Ramnarain Ruia Autonomous College.
- Participated in webinar on “Ionizing radiations as a powerful source for synthesizing nanomaterials with forensic & biomedical applications” organized by SRM University Delhi on 3July 2021.
- Participated in bilateral webinar held on 17 July 2021, organized by Department of Chemistry, SRM University Delhi in collaboration with faculty of Pharmaceutical sciences, Tokyo University of Science, Japan.

## Awards and Honors

- Won 'Best Research Paper' award in national conference.
- Selected as “Research Associate” by HBNI-BARC
- UGC Research fellowship from 2014-2018.
- University 1<sup>st</sup> rank holder in M.Sc. with Physical chemistry specialization
- Achieved 1<sup>st</sup> rank in B.Sc. and I.Sc.
- Achieved appreciation certificate from National Science Congress.

## Conference presentations

1. Presented and awarded with first prize for 'Best Research Paper' oral presentation entitled "Green synthesis: Medical and environmental applications" at the national conference on recent trends in science and technology, held on 7 february 2020, organised by KLE Science and Commerce College, Kalamboli.
2. “Green approach for synthesis of nanosilver using *Tabernaemontana divaricata*” **Minakshi Satish Jha** and Navinchandra G. Shimpi. International conference on New Horizons in synthetic and Materials chemistry (ICSMC-2015), Department of chemistry, Mumbai, 26 - 28 November 2015, (Poster).
3. “Green synthesis of zero valent colloidal nanosilver: Medicinal and environmental application” **Minakshi Jha** and Navinchandra G. Shimpi. 30<sup>th</sup> Research Scholar’s Meet 2018 (RSM-2018), Jai Hind College, Mumbai, 9<sup>th</sup> - 10<sup>th</sup> February, 2018 (Oral).
4. “Nanoindentation and mechanical response of Ag/PVA nanocomposite thin film with multicycle loads along with microstructural, thermal and optical perspectives” **Minakshi Jha** and Navinchandra G. Shimpi. National conference on Recent Developments in Chemical Sciences (RDCS-2018), Department of chemistry, Mumbai, 8<sup>th</sup>-9<sup>th</sup> March 2018, (Poster).

## Selected Publications

1. Minakshi Jha et al. "Ultrasonic assisted green synthesis of Ag:CdO nanocubes and nanospheres using *Citrus limon* leaves for efficient degradation of organic dyes" **Journal of industrial and engineering chemistry** 69 (2019) 269-284. (IF: 6.278)
2. Minakshi Jha and Navinchandra G. Shimpi. "Green synthesis of silver nanoparticles using *Tabernaemontana divaricata* and *in-vitro* cytotoxicity investigation against human lung adenocarcinoma" **International Journal of Pharmaceutical Science and Research**. 8,12 (2017)5100-5110.
3. Minakshi Jha and Navinchandra G. Shimpi. "Green synthesis of zero valent colloidal nanosilver targeting A549 lung cancer cell: In- vitro cytotoxicity" **Journal of Genetic Engineering and Biotechnology** 16,1 (2018) 115-124.
4. Minakshi Jha et al. "Novel sonochemical green approach for synthesis of highly crystalline and thermally stable Barium Sulphate Nanocapsules using *Azadirachta indica* leaves extract" **Bulletin of Materials science** 42,22 (2019).
5. Minakshi Jha and Navinchandra G. Shimpi. "Spherical nanosilver: Bio-inspired green synthesis, characterizations and catalytic applications" **Nano structure & Nano-objects** 16 (2018) 234-249.
6. Minakshi Jha and Navinchandra G. Shimpi. "Mechanical response of silver/polyvinyl alcohol thin film: from one-step and cyclic nanoindentation" **Advanced engineering and polymer research**.  
Doi.org/10.1016/j.aiepr.2021.11.001

## Professional Referees

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