Curriculum Vitae

Dr. Chinky Gangwar

(Ph.D. Chemistry, L.U.)

Designation & Address: Assistant Professor (Contractual),

Department of Chemistry,

B.S.N.V.P.G. (KKV) College,

Lucknow-226001, U.P., India.

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Academic Profile

Course	School/Institution Name	Board/University	Passing Year / Aggregate %
Ph.D. (Chemistry)	University of Lucknow	University of Lucknow	Submitted on **22 August 2022** Synthesis, Characterization and Spectrophotometric study of Metal Nanomaterials
M.Sc. (Chemistry)	University of Lucknow	University of Lucknow	**2018** (1762/2400) **73.41%**
B.Sc. (PCM)	B.S.N.V.P.G. (KKV) College Lucknow	University of Lucknow	**2016** (1217/1800) **67.61%**
12th	Kendriya Vidyalaya S.G.P.G.I. Lucknow	C.B.S.E.	**2013** (386/500) **77.20%**
10th	Kendriya Vidyalaya S.G.P.G.I. Lucknow	C.B.S.E.	**2011** (408.5/500) **81.70%**

Additional Qualification

Name of Exam Qualified	Subject	Year	Registration No./Roll No.	Rank
Graduation Aptitude Test in Engineering (**GATE**)	Chemistry (CY)	2020	CY20S25024132	4433 (Score- 324)
Joint CSIR-UGC Test-**NET(LS)**	Chemical Science	Dec 2019	UP1216202428	61

Ph.D. Thesis Title

Synthesis, Characterization and Spectrophotometric study of Metal Nanomaterials

Area of Specialization

Nanoscience & Nanotechnology

Chemical Kinetics

Catalysis

Supervisor

Prof. Radhey Mohan Naik
Department of Chemistry
University of Lucknow
Lucknow-226007

Co-Supervisor

Dr. Narendra Kumar Singh
(Associate Professor)
Department of Chemistry
University of Lucknow
Lucknow-226007

Research Experience

Full-Time Research Scholar at Department of Chemistry, University of Lucknow, Lucknow-226007, India. I have joined Prof. Radhey Mohan Naik's research group to purse my doctoral degree. During my entire research period I was given an opportunity to synthesize the noble metal-based nanomaterials, study the growth kinetics for the formation of nanomaterials, and to successfully employed them in different areas.

Teaching Experience

- Currently working as an Assistant Professor on contractual basis in the Department of Chemistry, B.S.N.V.P.G. (KKV) College, Lucknow, U.P., India.
- Worked as a Part-Time Lecturer at Department of Chemistry, B.S.N.V.P.G. College, Lucknow for the duration of 11-09-2018 to 28-02-2019.

Summary of Expertise

- Synthesis of metal-based nanomaterials.
- Hands on training on chemical reduction, green synthesis, sol-gel, co-precipitation, solid-state synthesis route for the preparation of nanomaterials.
- Handling of UV-visible double beam spectrophotometer and spectronic 20.
- Interpretation of absorption spectra.
- Handling of Fourier transformed infrared (FT-IR) spectrophotometer.
- Elucidation of FT-IR spectra.
- Structural and morphological interpretation of the images captured from scanning electron microscopy (SEM) or field emission scanning electron microscopy (FE-SEM) or transmission electron microscopy (TEM).
- Elemental composition interpretation of the profiles recorded from energy dispersive X-ray spectroscopy (EDS) technique.
- Hydrodynamic size and Zeta Potential determination through the size distribution and zeta potential plot recorded from dynamic light scattering (DLS) technique.
- Hands on training to perform the catalytic dye degradation experiments.
- Hands on training to perform antioxidant activities of different materials.

Software's Knowledge

- ChemDraw, Chem3D
- OriginLab 2018
- X'Pert High Score
- ImageJ
- EndNote

Lifetime Membership

- B.S.N.V. Vigyan Parishad

Publication Details

- **Articles Published**: 09

1. ***Chinky Gangwar***, Bushra Yaseen, Rashmi Nayak, Shama Praveen, Narendra Kumar Singh, Joy Sarkar, Monisha Banerjee, Radhey Mohan Naik*, "Silver Nanoparticles Fabricated by Tannic Acid for their Antimicrobial and Anticancerous Activity", *Inorganic Chemistry Communications*, 141(2022) 109532. DOI: https://doi.org/10.1016/j.inoche.2022.109532.

2. Indresh Kumar, ***Chinky Gangwar***, Bushra Yaseen, Pradeep Kumar Pandey, Sheo Kumar Mishra, Radhey Mohan Naik*, "Kinetic and Mechanistic Studies of the Formation of Silver Nanoparticles by Nicotinamide as a Reducing Agent", *ACS Omega*, 2022, 7(16) 13778–13788. DOI: https://doi.org/10.1021/acsomega.2c00046.

3. Bushra Yaseen, ***Chinky Gangwar***, Indresh Kumar, Joy Sarkar, and Radhey Mohan Naik*, "Detailed Kinetic and Mechanistic Study for the Preparation of Silver Nanoparticles by a Chemical Reduction Method in the Presence of a Neuroleptic Agent (Gabapentin) at an Alkaline pH and its Characterization", *ACS Omega*, 2022, 7(7) 5739–5750.
DOI: https://doi.org/10.1021/acsomega.1c05499.

4. Divyanshi Srivastava, Rajesh Kumar Shukla, Sheo K. Mishra, ***Chinky Gangwar***, Indresh Kumar, Radhey Mohan Naik, Santosh Kumar Singh, "Fabrication of Polyaniline/graphene oxide composites

for implementing it in humidity sensing", *The Journal of Biological and Chemical Luminescence*, 2022, 1-13. DOI: https://doi.org/10.1002/bio.4367.

5. ***Chinky Gangwar***, Bushra Yaseen, Indresh Kumar, Narendra Kumar Singh, and Radhey Mohan Naik*, "Growth Kinetic Study of Tannic Acid Mediated Monodispersed Silver Nanoparticles Synthesized by Chemical Reduction Method and Its Characterization", *ACS Omega*, 2021, 6(34) 22344–22356. DOI: https://doi.org/10.1021/acsomega.1c03100.

6. Indresh Kumar, Bushra Yaseen, ***Chinky Gangwar***, Rupal Yadav, Sheo K. Mishra, Radhey Mohan Naik*, "Ovalbumin mediated eco-friendly synthesis of silver oxide nanoparticles and their antibacterial and antifungal studies", *Materials Today: Proceedings*", 2021, 46(6) 2330-2334. DOI: https://doi.org/10.1016/j.matpr.2021.04.403.

7. Indresh Kumar, Bushra Yaseen, ***Chinky Gangwar***, Sheo K. Mishra, Radhey Mohan Naik*, "Environmental benign synthesis and characterization of nickel oxide nanoparticles using chicken egg white as template and evaluations of their antibacterial/antifungal activities", *Materials Today: Proceedings*", 2021, 46(6) 2272-2276. DOI: https://doi.org/10.1016/j.matpr.2021.03.735.

8. Narendra Kumar Singh*, Manish Kumar Yadav, Reena Parihar, ***Chinky Gangwar***, "Egg-White Mediated Sol-Gel Synthesis of Cobalt Ferrites and Their Electrocatalytic Activity Towards Alkaline Water Electrolysis", *Journal of New Materials for Electrochemical Systems*, 2020, 23(2) 87-93. DOI: https://doi.org/10.14447/jnmes.v23i2.a05.

9. Manish Kumar Yadav, ***Chinky Gangwar***, Narendra Kumar Singh*, "Low Temperature Synthesis and Characterization of $Ni_xFe_{3-x}O_4$ ($0 \leq x \leq 1.5$) Electrodes for Oxygen Evolution Reaction in Alkaline Medium", *Journal of New Materials for Electrochemical Systems*, 2020, 23(2) 78-86. DOI: https://doi.org/10.14447/jnmes.v23i2.a04.

- **Articles Communicated:** 04

10. ***Chinky Gangwar***, Bushra Yaseen, Indresh Kumar, Rashmi Nayak, Joy Sarkar, Abu Baker, Amit Kumar, Himanshu Ojha, Narendra Kumar Singh, Radhey Mohan Naik*, "Nano palladium/palladium oxide formulation using *Ricinus communis* plant leaves for antioxidant and cytotoxic activities", communicated in the Thomson Reuters impacted journal.

11. ***Chinky Gangwar***, Bushra Yaseen, Rashmi Nayak, Abu Baker, Naushin Bano, Narendra Kumar Singh, Radhey Mohan Naik, "*Madhuca longifolia* leaves mediated Palladium Nanoparticles synthesis via a sustainable approach to evaluate its biomedical application", communicated in the Thomson Reuters impacted journal.

12. Pradeep Kumar Pandey, ***Chinky Gangwar***, Bushra Yaseen, Indresh Kumar, Rashmi Nayak, Saurabh Kumar, Radhey Mohan Naik, Monisha Banerjee, Joy Sarkar* "Anticancerous and Antioxidant properties of fabricated silver nanoparticles involving bio-organic framework using medicinal plant *Blumea lacera*", communicated in the Thomson Reuters impacted journal.

13. Bushra Yaseen, ***Chinky Gangwar***, Rashmi Nayak, Saurabh Kumar, Joy Sarkar, Monisha Banerjee, Radhey Mohan Naik*, "Gabapentin loaded silver nanoparticles (GBP@AgNPs) for its promising biomedical application as a nanodrug: Anticancerous and Antimicrobial", communicated in the Thomson Reuters impacted journal.

- **Book Chapters Published**: 02

14.*Chinky Gangwar*, Bushra Yaseen, Radhey Mohan Naik*, "Advances in Sustainable One-Pot Synthesis of Nano Palladium", 2022, ISSN: 978-93-91248-16-1. DOI: https://doi.org/10.5281/zenodo.7048095.

15. Bushra Yaseen, ***Chinky Gangwar***, Radhey Mohan Naik*, "Synthesis and characterization of Phytochemical mediated Palladium nanoparticles", 2022, ISSN: 978-93-91248-16-1. DOI: https://doi.org/10.5281/zenodo.7048095.

National/ International Evented Attended/Participated

- **National Conferences/Webinars:** 06

1. An oral presentation in national conference on Advancement in Interdisciplinary Research organised by Amiruddaula Islamia Degree College, Lucknow, UP & Science Tech Institute, Lucknow, UP India (29-31 July 2022).
2. National Webinar on Features of ChemDraw and Greener Aspects of Drug Discovery, organized by Department of Chemistry and Internal Quality Assurance Cell (IQAC) of GE Society's RNC Arts, JDB Commerce and NSC Science College, Nashik Road, Nashik, (23 July 2020).
3. Webinar on Nano Materials for Biomedical Applications, organized by Department of Chemistry, KPR Institute of Engineering and Technology, Arasur, Coimbatore, (15 July 2020).
4. National Conference on Recent Advances in Chemical Sciences, organised by Department of Chemistry, University of Lucknow, Lucknow, (15 June 2021).
5. National Conference on Role of Mathematics in Advancement of Science & Technology, organized by Department of Mathematics, B.S.N.V.P.G. COLLEGE, Lucknow, (18-20 Oct 2013).
6. First District Conference on Science organized by Breakthrough Science Society (Lucknow Chapter) 3 Oct 2013.

- **International Conferences/Webinars:** 05

1. An oral presentation in an International Conference on Lucknow Climate Change Conference on Control of Green House Gasses at the source by Physical and Chemical Technologies_2k22 [LCCCCGGSPCT-2k22] organised by Babasaheb Bhimrao Ambedkar University Lucknow, India (22-24 April 2022).
2. International Conference on Diverse Emerging Materials and their applications, organised by Department of Physics, University of Lucknow, Lucknow, (14-15 Mar 2021).
3. An oral presentation in an international e-Conference on Chemistry for Health, Hygiene and Environment, organised by Navyug Kanya Mahavidyalaya Lucknow, India (1-2 March 2022).
4. International Webinar on Quantum Materials and Nanoparticles for Advance Applications, organized by Department of Physics (SF), Kamaraj College, Thoothukudi, Tamilnadu, India, (6 Aug 2020).
5. An oral poster presentation in an International Carbohydrate Conference on Emerging Frontiers in Carbohydrate Chemistry and Glycobiology, organized by Department of Chemistry, University of Lucknow, Lucknow, India, (5-7 Dec 2019).

- **Workshops:** 08

1. One day Workshop on Characterization of Nanomaterials organised by CSIR-Indian Institute of Toxicology Research, Lucknow, (23 Mar 2021).
2. International Workshop on Supporting Chemistry Research with modern DFT (Density Functional Theory): Software, Technique and Applications, organized by Department of Chemistry, Smt. S.S. Patel Nootan Science & Commerce College, Visnagar, Gujrat, (5-16 Feb 2021).
3. International Workshop on Design and Manufacturing of Composites for Engineering Applications, organized by Indian Institute of Technology Mandi, Mandi, Himachal, (1-5 Feb 2021).
4. Virtual Workshop on Drug, Design and Discovery, organized by Bansal Institute of Engineering and Technology, Lucknow, Uttar Pradesh, (28 May 2020).

5. National Workshop on An Interdisciplinary Approach Towards Sustainable Environment, organized by Lucknow Christian (degree) College, Lucknow, (16-17 Dec 2019).
6. Two days Workshop on NMR and its Application in Chemical, Pharmaceutical and Medicinal Sciences, organized by Dr. Shakuntala Misra National Rehabilitation University, Mohaan Road, Lucknow, (5-6 April 2019).
7. Two days Workshop on Gender Equality, Justice, & Women Empowerment, organized by B.S.N.V.P.G. COLLEGE (KKV), LUCKNOW, (8-9 Dec 2015).
8. Two days Workshop on Gender Equality, Justice, & Women Empowerment, organized by B.S.N.V.P.G. COLLEGE (KKV), LUCKNOW, (16-17 Jan 2015).

- **Training Programs:** 03

1. DST-STUTI seven-day training program on Materials Science, Nanotechnology, and Quantum Optics organised by Department of Physics, University of Lucknow, Lucknow, India (06-12 August 2022).
2. Three days Online Skill/ Training Program on Analytical Instrumentation Techniques for Environmental 'Organic Contaminants, organised by CSIR- NEERI, Nagpur (18-20 January 2022).
3. Online Short-Term Course on Cryogenics and Composites: Theory and Applications (CCTA 2020), organized by Department of Instrumentation & Control Engineering, Funded by TEQIP-III, Dr. B R Ambedkar National Institute of Technology Jalandhar, (3-7 July 2020).

- **Faculty Development Program:** 02

1. Faculty Development Programme on Smart and Functional Nanomaterials, organised by Department of Chemistry, National Institute of Technology, Calicut (4-8 Aug 2021).
2. International Faculty Development Programme on Latest Trends in Engineering, Science and Technology: Nanomaterials, organized by Department of Chemistry, Lendi Institute of Engineering and Technology, Vizianagaram (10-15 Aug 2020).

Achievements

1. Second best oral paper presentation in an international conference on Lucknow Climate Change Conference on Control of Green House Gasses at the source by Physical and Chemical Technologies_2k22 [LCCCCGGSPCT-2k22] organised by Babasaheb Bhimrao Ambedkar University Lucknow, India (22-24 April 2022).
2. Second best oral paper presentation in an international e-Conference on Chemistry for Health, Hygiene and Environment, organised by Navyug Kanya Mahavidyalaya Lucknow, India (1-2 March 2022).
3. Certificate of Excellence in Sports (state level award) for Red Ribbon formation Competition conducted by red ribbon club of B.S.N.V. P.G. COLLEGE, (1 Dec 2014).
4. Best Volunteer award in National Conference on Role of Mathematics in Advancement of Science and Technology, Department of Mathematics, B.S.N.V. (P.G.) College, Lucknow, (18-20 Oct 2013).

Personal Profile

Name: Chinky Gangwar
Mother's Name: Mrs. Kalawati
Father's Name: Mr. Yogesh Kumar
Date Of Birth: 9 Oct 1995
Gender: Female
Marital Status: Unmarried
Nationality: Indian
Languages Know: Hindi, English

Work Style

- Willing to perform basic tasks and move on to solve complex problems.
- Well-organized and passionate.
- Interested to acquire new knowledge and able to adopt to new environment quickly.
- Strong independent work style and excellent team work skills.

The described details are genuine and are solely represent my candidature.

Date: 12/12/2022

Place: Lucknow

Chinky Gangwar