

Name : **Dr. Mamta Belwal**
Designation : Assistant Professor
Department : Chemistry
Institution : Government Degree College, Satpuli (Pauri Garhwal) Uttarakhand
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Highest Qualification : M.Sc., B.Ed., Ph.D. in Chemistry (Kumaun University, Nainital)



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Total Citations at **Google Scholar** Citations (89), h-index (03) and i10-index (02)

Academic Qualifications:

2003-2008	Ph.D. (Chemistry) <i>Institution:</i> Kumaun University, Nainital <i>Department:</i> Chemistry <i>Thesis Title:</i> Physico-chemical properties of the main soil types of hill region of Kumaun (Uttarakhand) <i>Supervisor:</i> Prof. S.P.S. Mehta <i>Awarded:</i> 2008
2000-2002	M.Sc. (Chemistry) <i>University:</i> Kumaun University, Nainital <i>College:</i> MBPG Haldwani <i>Department:</i> Department of Chemistry
1997-2000	B.Sc. with Chemistry, Zoology and Botany <i>University:</i> Kumaun University, Nainital <i>College:</i> MBPG Haldwani

Awards, Fellowships and Memberships:

Awards	Global Young Excellence Teaching Award – 2024 in 7th International Conference entitled “<i>Global Approaches in Agricultural, Biological, Environment and Life Sciences for Sustainable Future (GABELS- 2024)</i>” on June, 08-10, 2024 at Buddha Hall, D.A.V. College (TU), Kathmandu, Nepal. Outstanding Faculty in Science Education Award – 2022 in National Conference on “<i>Agriculture, Applied and Life Science, 5th Plant Science Research Meet (PSRM)</i>” -2022 held at Uttarakhand Open University Campus, Haldwani, Uttarakhand, India, November 18-19, 2022.
Memberships	- Lifetime Member of PLANTICA association of plant science researchers (APSR). - Lifetime member of the Agricultural Technology Development Society (ATDS).

Professional Experience (Teaching / Industrial / Research): Total – 16 years

Sl. No.	From	To	Total Experience [in Years & Months]	Position Held	Organization
1.	June 2026	Till date	To continue		
2.	January 2017	June 2026	9 Years & 6 Months	Assistant Professor (Permanent)	R.H. Govt. P. G. College, Kashipur, Uttarakhand, India
3.	July 2013	December 2016	3 Years & 6 Months	Assistant Professor (Guest)	R.H. Govt. P. G. College, Kashipur, Uttarakhand, India
4.	July 2011	June 2013	02 Years	Assistant Professor (Guest)	Govt. P.G. College, Syalde, Uttarakhand, India
5.	December 2010	June 2011	07 Months	Assistant Professor (Guest)	Govt. P.G. College, Champawat, Uttarakhand, India
6.	July 2009	June 2010	01 Year	Assistant Professor	J.P.M. Degree College, Bareilly
7.	October 2008	June 2009	09 Months	Assistant Professor	M.J.P. Rohail khand Univ. Bareilly
TOTAL YEARS OF EXPERIENCE: 16 years U.G. and P.G. Teaching and Research					

Areas of Research Interest:

- Soil science
- Nanomaterials, Nanotechnology and Advanced Mesoporous Materials
- Composites of Graphene, Graphene Oxide and Carbon Nano-tubes
- Photocatalysis
- Metal Catalysed Organic Synthesis
- Green Chemistry

Supervised M.Sc. Dissertation Thesis (Completed: 52)

No. of M.Sc. Dissertation Thesis	Academic Session	Year of submission
07	2018-2019	July 2020
08	2020-2021	July 2022
13	2021-2022	July 2023
10	2022-2023	July 2024
08	2023-2024	July 2025
06	2024-2025	July 2026

Book Published

S. No.	Title	Publisher	ISBN No.	Year
1.	General Chemistry - II	Pragati Prakashan	978-93-5854-628-6	July 2024

Patents:

S.N.	Patent title	Published Date	Patent type
1.	Precision Instrument for Automated Pharmaceutical Salt Formation Analysis	31/07/2025	Indian Design Patent with grant
2.	Synthesis and Characterization of Transition Metal Complexes with Antimicrobial Activity	12/09/2025	Indian Copyright
3.	AI-Based Chemical Compound Screening System for Pharmaceutical Applications	Submitted 01/07/2026	Indian Patent with publication
4.	Apparatus for Chemical Sample Processing, Monitoring and Analytical Laboratory Applications	Submitted 25/06/2026	Indian Design Patent with grant

Professional Activities: Administrative Responsibilities

Admission Committee	Assisted in admission of B.Sc. and M.Sc. (Chemistry) at R.H. Govt. P.G. College, Kashipur, U.S. Nagar, Uttarakhand.
Election Committee	Assisted in college election committee at R.H. Govt. P.G. College, Kashipur, U.S. Nagar, Uttarakhand.
Sport Committee	Assisted in organization committee for Annual Sport Day at R.H. Govt. P.G. College, Kashipur, U.S. Nagar, Uttarakhand.
Internal Examiner	Assisted in conducting chemistry practical examination of B.Sc. and M.Sc. as internal examiner at R.H. Govt. P.G. College, Kashipur, U.S. Nagar, Uttarakhand.
Convener	- To organize an International e-Conference on “Recent Advances & Innovations in Applied Sciences – 2023 (RAIAS-2023)” held on August 12, 2023 at <i>e-platform</i> - To organize a one-day National Webinar on “Role of Science for Sustainable Rural Development of Uttarakhand - 2021 (RSS-RD-2021)” held on February 28, 2021 (National Science Day) at <i>e-platform</i> - To organize a two days national virtual conference on “Recent Advances in Analytical Techniques - 2020 (RAAT-2020)” held on August 16-17, 2020 at <i>e-platform</i>

4. To organize a two-day international virtual conference on “**Modern Instrumental and Characterization Techniques in Applied Sciences-2020 (MICTAS-2020)**” held on July 5-6, 2020 at *e-platform*
5. To organize National Level e- Quiz Contest on “**Corona Virus Disease (COVID-19) Chemistry Awareness**” held on May 15-31, 2020 at *e-platform*

Professional development programmes

(Orientation, Refresher, Short Term Course, and Faculty Development Programme)

- **Online Refresher Course** in Information Communication Technology (ICT) (held from 19.11.2024 to 04.12.2024) UGC - Malaviya Mission Teacher Training Centre (MMTTC), Punjabi University, Patiala.
- **Two Weeks Online Refresher Course in Chemistry** (held from 30.01.2023 to 11.02.2023) UGC - Human Resource Development Centre, University of Jammu, Jammu.
- **Online Refresher Course in Basic Sciences (Chemical)** (held from 22.09.2020 to 05.10.2020) UGC-Human Resource Development Centre, Guru Nanak Dev University, Amritsar.
- **Offline 32nd Orientation Programme** (held from 26.04.2017 to 23.05.2017) UGC - Human Resource Development Centre, Punjabi University Patiala
- Completed **Online Faculty Development Program-FDP** held from 17.06.2020 to 20.06.2020 at R&D Cell, SAGE University Indore.

List of Publications: (Total Published: 08 SCI)

1. Ashish Kumar*, Venkataraman Vishwanathan, **Mamta Belwal** and Dhaneswar Das “Catalytic Oxidation of Benzyl Alcohol over Supported Gold Nanocatalysts” *Engineering & Technology Review* (2021) Volume 2(1) pp 31-37 (Impact Factor : 0.53 ; ISSN 2693-115X) DOI: <https://doi.org/10.47285/etr.v2i1.86>
2. Ashish Kumar*, **Mamta Belwal**, Varun Mohan, Radha Raman Maurya, Venkataraman Vishwanathan “Catalytic vapor phase oxidation of glycerol to glyceric acid over activated carbon supported gold nanocatalysts” *International Journal of Nanoscience, (World Scientific)* (2020) Volume 19, No. 06, 2050007 (Impact Factor : 0.11; ISSN (print): 0219-581X (online): 1793-5350) DOI: <https://doi.org/10.1142/S0219581X20500076>
3. Ashish Kumar*, **Mamta Belwal** and Venkataraman Vishwanathan* “Application of instrumental methods and techniques for characterization of solid catalysts” *SREYAS International Journal of Scientists and Technocrats*, (2020) Vol. 4(1) pp. 17-33 (Impact Factor : 0.51 ; ISSN: 2456-8783)
4. Mandeep Kaur, **Mamta Belwal**, Aakriti Sharma, Ashish Kumar* and Venkataraman Vishwanathan “Efficient removal of organic pollutants in wastewater using tin oxide nanospheres under photo irradiation” *Journal of Applied Material Science & Engineering Research* (2020) Volume 4, Issue 3, pp 68-73 (Impact Factor : 0.11; ISSN: 2689-1204)
5. Ashish Kumar*, **Mamta Belwal**, Radha Raman Maurya, Varun Mohan, Venkataraman Vishwanathan “Heterogeneous catalytic reduction of anthropogenic pollutant, 4-nitrophenol by Au/AC nanocatalysts” *Materials Science for Energy Technologies, Elsevier Publisher* (2019) Volume 2, pp 526–531 (Impact Factor : 1.210 ; ISSN : 2589-2991) DOI: <https://doi.org/10.1016/j.mset.2019.05.007>
6. Ashish Kumar*, Rajeev K. Gautam and **Mamta Belwal** “Synthesis and Characterization of Au/ γ -Al₂O₃ Nanocatalysts for Vapor-Phase Selective Oxidation of Benzyl Alcohol under Aerobic Condition” *Current Catalysis, Bentham Science* (2018) Volume 7, pp 35-42 (Impact Factor: 2.621; ISSN 2211-5447 (Print)) DOI: <https://doi.org/10.2174/2211544706666170811101508>
7. Manu Sharma, Ashish Kumar*, Rajeev K. Gautam, and **Mamta Belwal** “Synthesis and Characterization of ZnO–CeO₂ Nanocomposite with Enhanced UV-Light-Driven Photocatalytic Dye Degradation of Rhodamine-B” *Journal of Nanoscience and Nanotechnology, American Scientific Publishers* (2018)

Volume 18, pp 3532–3535 (Impact Factor : 1.354 ; ISSN: 1533-4880 (Print) 1533-4899 (web) ; h-index : 105) DOI: <https://doi.org/10.1166/jnn.2018.14675>

8. **Mamta Belwal*** and S.P.S. Mehta “Physico-chemical properties of the main soil types of Ranikhet region of Kumaun (Uttarakhand)” *Journal of Chemical and Pharmaceutical Research* (2014), Volume 6 (4), pp 682-688 (**Impact Factor = 0.751**).

Short Term Courses / Workshops / Conferences (Presented / Attended):

Workshop	1. One Day Workshop on “Scientific Paper Writing” held at SBS Govt. P. G. College, Rudrapur, (US Nagar) Uttarakhand, March 15, 2023 2. One Day State Level Workshop on “Intellectual Property Rights (IPRs)” held at Indira Priyadarshini Govt. Girls P.G. College of Commerce Haldwani, Nainital, Uttarakhand, February 08, 2023. 3. One Day National Workshop on “In conversation with the Queen of Kumaun Dr. Megha Bharti Meghall A session Personality Development & Effective Communication” held at Government PG College, Bazpur (US Nagar) Uttarakhand, February 20, 2023. 4. Indo-EU Workshop on “<i>Electrochemical Technologies</i>” held at Chemical Engineering Department, Indian Institute of Technology Delhi, Hauz Khas, New Delhi, March 2, 2017.
Webinar	1. International INDO-SPAIN WEBINAR on “Electrolyzed Water and its application in Agriculture” held at Maharishi Markandeshwar (Deemed to be University) MMU Mullana-Ambala, Haryana, April 08, 2022. 2. National webinar on “<i>COVID-19: Impact on Environment and Social Change</i>” organized by Pranahi, the Eco Club of BCAS held on 05th June, 2020 through Google Meet. 3. National webinar on “<i>Challenges and Opportunities in Covid-19 Scenario</i>” organized by Department of Mathematics, Sri Jai Narain Misra P.G. College (KKC), Lucknow on 05th June, 2020. 4. Webinar on topic “<i>Language Technology and Role of Literature Departments in India</i>” organized by ARSD College, Dhaula Kuan, New Delhi held on 02nd June, 2020. 5. National webinar on “<i>Preventative healthcare diagnostic platforms based on Micro-Nanotechnologies</i>” organized by Department of Science, Lady Irwin College held on 30th May, 2020. 6. Webinar on topic “<i>Care for Earth: Thy Survival</i>” organized by ARSD College, Dhaula Kuan held on 30th May, 2020. 7. National webinar on “<i>Impact of COVID-19 Pandemic Indian Education System</i>” organized by Bajaj College of Management & Technology, Gadarpur, Udham Singh Nagar (Uttarakhand) on 27th May, 2020. 8. International webinar on “<i>Contribution of Language, Literature and Genres in Covid-19 Public Awareness Campaign and Dimensional Changes in Social Science</i>” organized by Government Raza P.G. College, Rampur on 26th May, 2020. 9. National webinar on “<i>Ecological Revival during Pandemic</i>” organised by Department of Chemistry of BCAS held on 21st May 2020 through Google Meet. 10. Guest Lecture on “<i>Role of Material Science in Protection of Environment against Corona Infection</i>” organised by IFTM University, Moradabad, U.P. on 20th May, 2020.
Conference	1. 7th International Conference entitled “Global Approaches in Agricultural, Biological, Environment and Life Sciences for Sustainable Future (GABELS- 2024)” held at Buddha Hall, D.A.V. College (Tribhuvan University), Kathmandu, Nepal on June, 08-10, 2024 (Oral Presentation - 07, Page No. 81) (ISBN : 978-81-970319-5-3) 2. 1st International Conference On "Recent Trends in Chemical Sciences & Sustainable Energy" (RTCSSE-2023) held at NIT Delhi, March 24-25, 2023 (Oral Presentation - 11, Page No. 44) 3. 2nd International Online Conference on "Emerging Trends in Chemical Science" (E.T.C.S.-2023) held at Department of Chemistry, H.V.M. (P.G.) College, Raisi, Haridwar, Uttarakhand, March

- 17-18, **2023 (Oral Presentation - 12, Page No. 39)**
4. National Seminar on “Social and Economics of women in Uttarakhand” held at Department of Sociology, Govt. PG College, Berinag, Pithoragarh, Uttarakhand, February 24-25, **2023**.
 5. National Conference on Agriculture, Applied and Life Science, 5th Plant Science Research Meet (PSRM) -2022 at Uttarakhand Open University Campus, Haldwani, Uttarakhand, India, November 18-19, **2022 (Oral Presentation - 21)**
 6. DRDO Sponsored 2nd National conference on "Advanced Technologies and Environmental Safety (ATES-2022)" held at IFTM University, Lodhipur Rajput Moradabad, U.P., India, July 23-24, **2022** (Page No. 01)
 7. National conference on “Modern Instrumental and Characterization Techniques in Biotechnology & Applied Sciences-2020 (MICTBAS-2021)” held at MIET Kumaon Haldwani Uttarakhand, September 3-4, **2021**.
 8. National conference on "Advanced Technologies and Environmental Safety (ATES-2019)" held at IFTM University, Lodhipur Rajput Moradabad, U.P., India, March 9-10, **2019** (Page No.33, 51)
 9. National Seminar on “Technology for Environmental Sustainability, Socio-Economic Responsibility and Associated Entrepreneurial Opportunities in 21st Century” held at Seminar Hall, Sri Aurobindo College, Department of Chemistry, Malviya Nagar, New Delhi-110017, March 8-9, **2019** (Poster-PP05, Page No.91).
 10. National Seminar on "Emerging Trends and Future Challenges in Science (ETFCS-2019)" held at Department of Chemistry, Shri Guru Ram (P.G.) College, Dehradun (Uttarakhand), February 27-28, **2019** (Page No. 61, 68).
 11. International Conference on “Recent Trends in Environment and Natural Sciences (ICRTENS-2019)” held at Government Science College, Sabalpara, Sikar, Rajasthan, India, February 12-13, **2019** (Oral Presentation) (ISBN 978-93-5351-064-0) (Page No. 78).
 12. National Conference on “Chemistry for Human Health and Environment (CHHE)” held at Conference Center, University of Delhi, Delhi-110007, December 15-16, **2018** (Poster-PP 22, Page No.35).
 13. Nano India 2017 & DST Nano Mission Review Meeting held at Indian Institute of Technology Delhi, New Delhi, March 15-16, **2017** (Poster-136).
 14. 9th National Seminar on "New Paradigm in Chemical Sciences: Synthetic and Analytical Perspectives 2017 (NPICS: SAP2017)" held at Department of Chemistry, Punjabi University, Patiala (Punjab), February 09-10, **2017** (Poster-PP01, Page No.35).

Computer Skills:

Software Packages | MS-Office, Adobe-Photoshop, Chem-Office, Chem-Draw 8.5, Origin 6 & 8.

Language Efficiency:

English, Hindi & Kumauni | Read, Write, Speak