



Nusrat

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Google Scholar link:

<https://scholar.google.com/citations?user=1TUZHfOAAAAJ>

Academic background

Education:

- MSc (2009): M.Sc. Agrochemicals (**Gold Medalist**)
Department of Chemistry University of Delhi
- BSc (2007): Daulat Ram College, Delhi, India

Professional:

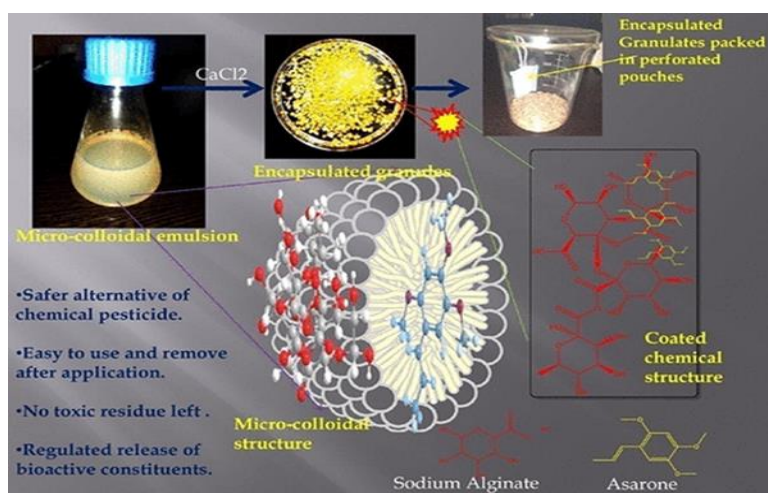
- **August 2015 to till now: Scientist () in Institute Of Pesticide Formulation, Gurgaon**
- July 2010 to September 2011: Senior Research Fellow Indian Agricultural Research Institute, Pusa Campus, New Delhi-110012

Research Interests

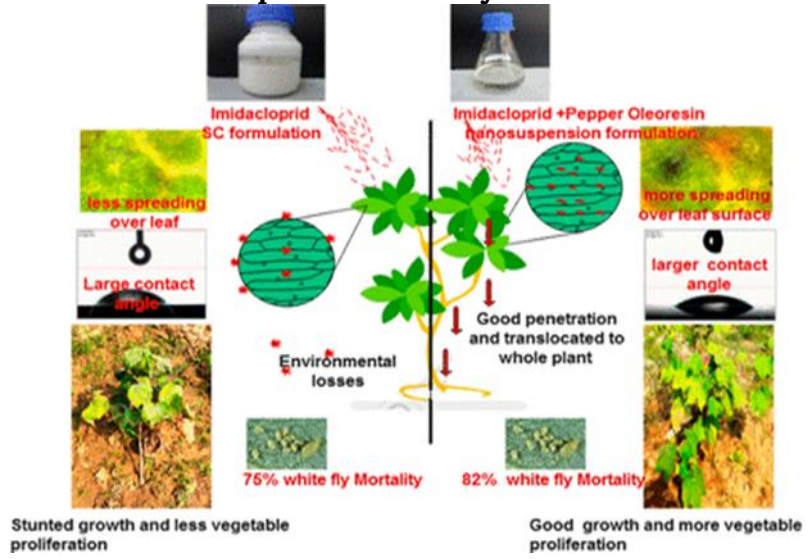
Working on cutting-edge technologies such as nanotechnology, microencapsulation, biotechnology, green chemistry to develop more effective, safer, and sustainable agro-chemical formulations. These technologies will enhance the efficiency, efficacy, and environmental friendliness of agrochemical formulations, ultimately benefiting both farmers and the environment.

Some of the research highlights of our work as follows,

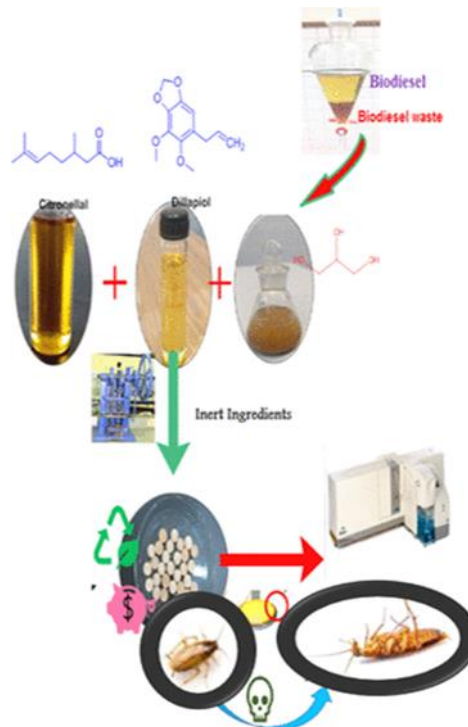
Biofabrication of bioactive agents



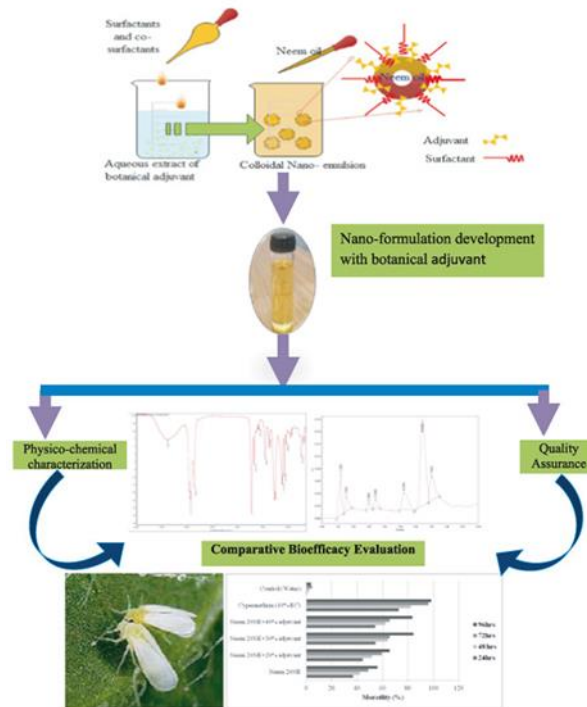
Development of Nanohydrocolloids



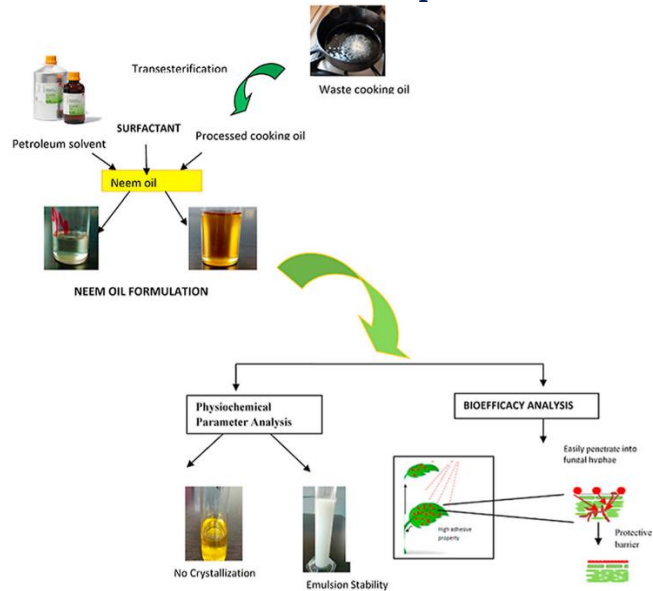
Formulation Engineering of biowastes



Bioengineering of botanical nanoemulsion along with Adjuvants



Utilization of waste products as inert ingredient in formulation development



Selected publication

- Nusrat Iqbal, Dipak Kumar Hazra, Chetan Jawale, Samsul Alam, Shubham Yadav, Amrish Agrawal, Ajin S Anil, Jitendra Kumar, Biofabrication of Microbeads Infused with Acorus calamus Oil and Eucalyptus Extract for Sustainable Stored Grain Pest Management, ACS Applied Polymer Materials, 2024.
- Nusrat Iqbal, Selvamuthukumaran Thirunavukkarasu, Rama Krishna, Dipak Kumar Hazra, Chetan Jawale,

Shubham Yadav, Samsul Alam, Sabyasachi Ghosh, Amrish Agrawal and Jitendra Kumar, Environmentally Benign Design of Renewable Oleoresin-Bioenergized Imidacloprid Nanohydrocolloids for Improved Activity, Lower Toxicity, and Agroecological Sustainability, ACS Sustainable Chemistry & Engineering, 2023.

- Nusrat Iqbal, Ranju Sharma, Dipak Kumar Hazra, Saurabh Dubey, Natish Kumar, Amrish Agrawal, Jitendra Kumar, Successful utilization of waste cooking oil in Neem oil-based fungicide formulation as an economic and eco-friendly green solvent for sustainable waste management, Journal of cleaner production, 2022 288, 2021, 125631.
- Nusrat Iqbal, Dipak Kumar Hazra, Alope Purkait, Amrish Agrawal, Mahesh Kumar Saini, and Jitendra Kumar, Eco-Oriented Formulation and Stabilization of Oil-Colloidal Biodelivery Systems Based on GC-MS/MS-Profiled Phytochemicals from Wild Tomato for Long-Term Retention and Penetration on Applied Surfaces for Effective Crop Protection, Journal of Agricultural and Food Chemistry, 2023 71 (8), 3719-3731.
- Nusrat Iqbal, Dipak Kumar Hazra, Saurabh Dubey, Megha Pant, Satyawati Sharma, Kusha Roy, Abhishek Sharma, and Reeta Chaudhary, Formulation Engineering of Biowastes as Green Insecticide for Successful and Safe Control of German Cockroaches (*Blattella germanica* (L.)) and Possible Waste Management, ACS Agric. Sci. Technol. 2022, 2, 2, 302-310.
- Nusrat Iqbal, Dipak Kumar Hazra, Alope Purkait, Amrish Agrawal, Jitendra Kumar, Bioengineering of neem nano-formulation with adjuvant for better adhesion over the applied surface to give long-term insect control, Colloids and Surfaces B: Biointerfaces 209 (2022) 112176 (Impact factor-5.2).
- Nusrat Iqbal, Amrish Agrawal, Jitendra Kumar, Development of effervescent tablet formulation for rapid control of mosquito problem in early stages from different breeding sites, Arabian Journal of Chemistry, Volume 14, Issue 4, 2021, 103082, ISSN 1878-5352.

**Awards / Honours
/ Affiliations**

- University Gold Medal And First rank certificate in M.Sc. Examination
 - INSPIRE fellowship for university first rank holders
 - Maulana Azad National Fellowship (MANF) by UGC
 - University Toppers Award In VishwaSathiSanghathan Program
 - Award of Excellency in Bachelors of education Examination
 - Certificate of excellence in reviewing
 - Award of excellence in Chemical sustainability (awarded by FICCI)- jointly with other scientists of Formulation division of IPFT.
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