



## **Dr. Roohi**

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**Scopus ID: 49061527300**

**Researcher ID: AFS-8295-2022**

**Google Scholar Citation: <https://scholar.google.com/citations?user=FsBcCt0AAAAJ>**

**Web Of Science: <https://www.webofscience.com/wos/author/record/AFS-8295-2022>**

### **PROFILE**

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- I have a 17 years of experience in teaching and /or research.
- I have completed my PhD in Biotechnology (titled “Purification and characterization of cold-active extracellular  $\alpha$ -amylase from psychro-tolerant microorganisms and its industrial applications”) from Integral University in 2012 after qualifying CSIR-JRF-NET (2007) and ICAR-ARS/NET (2009).
- I published more than 40 research articles in peer-reviewed indexed journals along with 15 book chapters and serving as an Editorial board member/reviewer of many reputed journals.
- I have a membership of various professional bodies.
- I have received two major Research Projects, funded by DST (SERB-ECRA) of 30.81 Lakhs (on “biodegradable plastic degrading PHB depolymerase” in 2018) and CST-UP, Lucknow (on “cold-active  $\alpha$ -amylase” in 2013).
- I have been granted with four Patents including National and International.
- I have edited and authored several books.

- I got 1184 citations for one paper related to my project on biodegradable plastics within just 3.5 years. I have a total of 1748 Google scholar citations with h-index: 10 and i10-index: 11 (till date).
- 6 PhD students have been awarded with PhD degree under my supervision and 4 are currently pursuing their research.
- I have attended more than 50 International/National, Conferences/ Workshops/ Seminars (+20 in online mode) and presented my research work in 45 such events (won prizes for oral presentation).

#### RESEARCH INTEREST:

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- My research group aimed at gathering all of the initial data related to microorganisms (bacteria/fungi) and enzymes able to degrade biodegradable plastics (specifically PHB) that can be used at industrial level.
- Significant effort will be devoted to demonstrating the characteristics of novel depolymerase enzymes and their use for proper disposal of biodegradable plastics.
- Additionally, to accelerate the degradation process, a cocktail of different microbial species will be used that can break down plastic more efficiently than individual species.
- We are also working on the production of biodegradable plastics and targeting its numerous biotechnological and biomedical applications for the sustainable environment and development.

#### SUMMARY OF RESEARCH ACCOMPLISHMENT:

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### Research Projects

- **Awarded** with research project titled "Eco-friendly, biodegradable plastic degrading PHB depolymerase from microbes: Purification, characterization and biotechnological applications" of **30.81 Lakhs** in May 2018 by **DST-SERB** under **ECRA** scheme as **Principle Investigator** (Project Number: ECR/2017/001001).
- **Co-Principal Investigator of U.P-CST Project** (Titled- "Production of cold-active  $\alpha$ -amylase from microorganisms and its biotechnological potential", from July 2010- July 2013, Project Number: CST/3221, Grant: 6.36 lakhs).

#### PROFESSIONAL MEMBERSHIP:

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- Founding membership of Research India Foundation (RIF), a Govt. of India registered Research Training and Development Foundation (w.e.f 22 Nov 2023), Membership number: RIF-NOV23-542
- Life membership of Biochemical Technology Society as honorarium (2017), Membership number: 5346-2754-3178-1070.
- Lifetime Membership as Senior Member (Membership ID: SR314090016) of International Society for Research and Development (ISRDR).
- Association of Microbiologists of India (AMI): Educational member
- Indian Science Congress Association: Membership number: SLM1852.
- International Association of Engineers since 2013.
- Biotech Research Society of India since 2013.
- European Biotechnology Network since 2013.
- Scientists Solution: The International Life Science Forum since 2013.
- European Federation of Biotechnology since 2013.

#### COURSE TAUGHT:

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1. Animal physiology BE206 in B.Tech Biotechnology
2. Cell biology BE305 in B.Tech Biotechnology
3. Biochemistry BE501
4. Biochemistry lab BE203 in B.Tech Biotechnology
5. Clinical biochemistry BE214
6. Genetics BE315 in B.Tech Biotechnology
7. Enzyme engineering BE510 in M.Tech Biotechnology
8. Immunology lab BE211 in B.Tech Biotechnology
9. Project dissertation of final year students in even semester
10. PhD Course work paper (Biochemistry & Enzyme engineering BE707)

#### ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILITY

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- **Subject Expert** in **Selection Committee** of **Assistant Professor** in Dept. of Environmental Science.

- **Research Advisor** in “Basic Research Collaboration Committee” at IIMSR, Integral University from Sep 1<sup>st</sup>, 2022.
- **Subject Expert** in Interview of PhD candidates in IIAST, Integral Univ.
- **PG Coordinator:** from March 2023 till date and **UG Coordinator** (from 2017-2022) in Dept. of Bioengineering.
- **Academic Coordinator:** Department of Bioengineering from March 2023 till date.
- **Dissertation Coordinator:** Department of Bioengineering from January 2017 till date.
- **Member of “Central Committee”** constituted for NAAC cycle-2 for Criteria-1 from 2019 onwards.
- **Assistant Centre Superintendent** to conduct the AMU Admission Test for Session 2021-22.
- **Flying Squad member** during the End semester examination at the University level.
- **Module Coordinator** for 1 week training program on Basic Microbiology Techniques for Lab Staff.
- **Advisory Committee Member** for Research Meet.

## STUDENTS SUPERVISION

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### 1. Name: **Shridhar Mishra**

Course: Ph.D. Biotechnology (Integral University, Lucknow) (Awarded in 2018)

Title: Liquid Based Cytology Assessment of p16 and DNA Ploidy in Cervical Neoplasia: Correlation with p16 Promoter Hypermethylation.

### 2. Name: **Kulsoom Bano**

Course: Ph.D. Microbiology (Integral University, Lucknow) (Awarded in 2020)

Title: Purification and characterization of plastics degrading extracellular enzymes from microorganisms and their biotechnological applications.

### 3. Name: **Hena Jamali**

Course: Ph.D. Microbiology (Integral University, Lucknow) (Awarded in 2021)

Title: Deciphering the Phenotypic and Genetic Diversity of Culturable Plant Growth Promoting Rhizobacteria from Extreme Environment.

4. Name: **Deepika Singh**

Course: Ph.D. Biotechnology (Integral University, Lucknow) (Awarded in 2021)

Title: Characterization of root specific WRKY gene(s) from tomato.

5. Name: **Naushin Bano**

Course: Ph.D. Microbiology (Integral University, Lucknow) (Awarded in 2023)

Title: Bioprospecting the Actinomycetes in rhizosphere of selected medicinal Plants.

6. Name: **Mohammed Amir**

Course: Ph.D. Biotechnology (Integral University, Lucknow) (Awarded in 2024)

Title: Production and characterization of poly- $\beta$ -hydroxybutyrate (PHB) biopolymer from microbes using carbon-rich agro-wastes to synthesize green plastic for sustainable environment.

7. Name: **Aamina Shahab**

Course: Ph.D. Biotechnology (Integral University, Lucknow) (In progress)

Title: Conversion of Banana peel waste for the production of value-added product bioethanol by solid state fermentation

8. Name: **Shareen Fatima**

Course: Ph.D. Biotechnology (Integral University, Lucknow) (Thesis submitted)

Title: Utilization of animal processing co-products and waste for biodegradable plastic production from microbes

9. Name: **Gaurav Yadav**

Course: Ph.D. Biotechnology (Integral University, Lucknow) (In progress)

Title: Analysis of high-altitude extremophiles to outline lipid biosignature for off-earth detection of microbial life

10. Name: **Tahayya Haq**

Course: Ph.D. Biotechnology (Integral University, Lucknow) (In progress)

Title: Synthesis of papain conjugated  $\beta$ -glucosidase nanoflowers against microbial biofilms in the food industry

# Guided 54 Undergraduate (B.Tech + B.Sc) and 45 postgraduate (M.Tech + M.Sc) students during their In-house training period as Supervisor and/or Internal Advisor.

## PUBLISHED/GRANT PATENTS

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### 1. INTERNATIONAL PATENT (Australian Government)

- **Innovation Patent**

**Title of invention:** System and method for indoor clothes dryer using direct transportation of solar light

**Patent number:** 2021101539 dated 25 March 2021

**Name of inventor(s):** A, Manimaran; Lakshmikanthan, Avinash; B, Neeraja; Rehman, Tasneem Bano; Ansari, **Roohi**; Yadav, Shiv Pratap Singh; D, Vijendra Babu; C, Narayanaswamy; P L V N, Saichandra; S, Parasuraman; G, Veeramalai and P, Jenopaul

Term of Patent: Eight years from 25 March 2021

### 2. NATIONAL PATENT (Indian Government)

- **Design Patent**

**Title of invention:** Water Quality Improving Container

**Design No.:** 338503-001 dated- 03/02/2021

**Name of inventor(s):** Apurba Gohain, Gaurav Saikia, Saptarshi Borkakoti, Dr. Mohd. Rehan Zaheer, **Dr. Roohi**

- **(b) Innovation Patent**

**1. Title of invention:** Low-cost biodegradable plastic production using nanotechnology

**Patent number:** 20224106089 dated 4/11/2022

**Name of inventor(s):** Tr. Perala Sudheer Paul, Dr. Pallavi N, **Dr. Roohi**, Dr. M. Parthasarathy, Dr. Ikechukwu Peter EJIDIKE, Mr. Kotta Apparao, Dr. Ashish Verma

**2. Title of invention:** Novel method for the detection of PHB polymer based phaz PHB depolymerase enzyme

**Patent number:** 202111053238 dated 26/11/2021

**Name of inventor(s):** Dr. Roohi, Dr. Mohd. Kuddus, Mr. Mohd. Amir, Ms. Naushin Bano, Dr. Mohd. Rehan Zaheer

PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS

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1. Mohammed Kuddus, Roohi, Naushin Bano, Gouse Basha Sheik, Babu Joseph, Burhan Hamid, Sindhu Raveendran, Aravind Madhavan (2024). Cold-active microbial enzymes and their biotechnological applications. **Microbial Biotechnology**, 17(4), e14467, 1-19 (ISSN: 1751-7915), <https://doi.org/10.1111/1751-7915.14467> IF: 5.7
2. Roohi, Naushin Bano (2024). Actinobacteria: Smart micro-factories for health sector. **Recent Patents on Biotechnology** (Published), (ISSN: 2212-4012), <https://doi.org/10.2174/0118722083300181240429072502>
3. Naushin Bano, Syed Khalida Izhar, Anamika Gupta and Mohd. Rehan Zaheer and Roohi (2024). Prospects of plant derived bioactive compounds as nanoparticles for biotechnological applications. **Recent Patents on Biotechnology** (Published), (ISSN: 2212-4012), <https://doi.org/10.2174/0118722083301253240417114400>
4. Naushin Bano, Anamika Gupta, Mohd. Amir, Mohd. Rehan Zaheer, Roohi (2024). Malignance-restriction activity exhibited by bioactive compounds of selected actinobacteria as silver nanoparticles against A549 lung cancer cell lines. **Cell Biochemistry and Functions**, 42(3), 1-13 (ISSN: 0263-6484), IF: 3.6, <http://doi.org/10.1002/cbf.3988>
5. Mohammad Amir, Shareen Fatima Rizvi, Mohd Asif, Akil Ahmad, Mohammed B. Alshammari, Anamika Gupta, Mohd. Rehan Zaheer, Roohi (2024). Polyhydroxybutyrate (PHB) bioplastic characterization from the isolate *Pseudomonas stutzeri* PSB1 synthesized using potato peel feedstock to combat solid waste management. **Biocatalysis and Agricultural Biotechnology**, 57(103097), 1-16 (ISSN: 1878-8181), <https://doi.org/10.1016/j.bcab.2024.103097>. IF: 4.6
6. Safia Iqbal, Mohd. Kamil Hussain, Bhoomika Singh, Mohd. Rehan Zaheer, Roohi, Insha Akbar & Anamika Gupta (2024). Visible light-promoted catalyst-free (VLCF) scalable synthesis of novel derivatives of Isoniazid and Maleimide. **ChemistrySelect**, 9, e202303606, 1-13, (ISSN: 2365-6549), <https://doi.org/10.1002/slct.202303606>. IF: 2.3

7. Safia Iqbal, Farhanaz, **Roohi**, Mohd. Rehan Zaheer, Krupa Shankar, Mohd. Kamil Hussain, Qamar Zia, Md. Tabish Rehman, Mohamed F. AlAjmi & Anamika Gupta (2023). Visible-light promoted catalyst-free (VLCF) multi-component synthesis of spiro indoloquinazolinone- pyrrolo[3,4-a]pyrrolizine hybrids: evaluation of in vitro anticancer activity, molecular docking, MD simulation and DFT studies. **Journal of Biomolecular Structure and Dynamics**, 42:6, 3145-3165 (ISSN: 1538-0254), <https://doi.org/10.1080/07391102.2023.2214229>. IF: 5.23
8. Shareen Fatima Rizvi, Aamina Shahab, Gaurav Yadav, **Roohi** (2023). Utilization of chicken feathers for PHA accumulation by bacteria isolated from slaughterhouse soil. **Journal of Survey in Fisheries Sciences** 10 (3), 1-10, <https://doi.org/10.53555/sfs.v10i3.2023> (ISSN: 2368-7487), Green Wave Publishing of Canada
9. Mohammad Amir, Naushin Bano, Anamika Gupta, Mohd. Rehan Zaheer, **Roohi** (2023). Purification and characterization of extracellular PHB depolymerase enzyme from *Aeromonas caviae* Kuk1-(34) and their biodegradation studies with polymer films. **Biodegradation**, 1-17 (ISSN: 0923-9820), <https://doi.org/10.1007/s10532-023-10051-4>, IF: 3.6.
10. Naushin Bano, Danish Iqbal, Ayoub Al Othaim, Mehnaz Kamal, Hind Muteb Albadrani, Naseh A. Algehainy, Hadeel Alyenbaawi, Fayez Alghofaili, Mohammad Amir and **Roohi** (2023). Antibacterial efficacy of synthesized silver nanoparticles of *Microbacterium proteolyticum* LA2(R) and *Streptomyces rochei* LA2(O) against biofilm forming meningitis causing microbes. **Scientific Reports (NATURE)**, 13: 4150 (ISSN: 2045-2322), <https://doi.org/10.1038/s41598-023-30215-9> IF: 4.99
11. Mohammad Amir, Naushin Bano, Abu Baker, Qamar Zia, Saeed Banawas, Mohd. Rehan Zaheer, Mohammad Shariq, Md Sarfaraz Nawaz, Mohd. Farhan Khan, Z. R. Azaz Ahmad Azad, Anamika Gupta, **Roohi** (2022). Isolation and optimization of extracellular PHB depolymerase producer *Aeromonas caviae* Kuk1-(34) for sustainable solid waste management of biodegradable polymers. **PLOS ONE**, 17(4): e0264207 <https://doi.org/10.1371/journal.pone.0264207> (ISSN: 1932-6203) IF: 3.75



12. Anamika Gupta, Safia Iqbal, **Roohi**, Mohd. Hussain, Mohd. Rehan Zaheer, Krupa Shankar (2022). Visible Light-Promoted Green and Sustainable Approach for One-Pot Synthesis of 4,4'-(Arylmethylene)bis(1H-pyrazol-5-ols), *in-vitro* Anticancer Activity, and Molecular Docking with Covid-19 Mpro. **ACS Omega**, 7(38): 34583–34598, <https://doi.org/10.1021/acsomega.2c04506> (ISSN: 2470-1343) IF: 4.13
13. Anamika Gupta, Mohd. Rehan Zaheer, Safia Iqbal, **Roohi**, Akil Ahmad, Mohammed Alshammari (2022). Photodegradation and In Silico Molecular Docking Study of a Diuretic Drug: Clopamide. **ACS Omega**, 7(16), 13870–13877, <https://doi.org/10.1021/acsomega.2c00256> (ISSN: 2470-1343) IF: 4.13
14. Mehar Fatima and Roohi (2021). A Brief Overview on Current and Potential Applications of Thermoplastic Starch. *Acta Scientific Pharmaceutical Sciences*, 5(12): 1-8 (ISSN: 2581-5423).
15. Anamika Gupta, Yogesh Kumar, Mohd. Rehan Zaheer, **Roohi**, Jawaid Iqbal (2021). Electron-Transfer Mediated Photodegradation of Phototoxic Antipsychotic Drug Quetiapine. **ACS Omega**, 6, 30834–30840, <https://doi.org/10.1021/acsomega.1c05302> (ISSN: 2470-1343) IF: 4.13
16. Naushin Bano, Saba Siddiqui, Mohammad Amir, Qamar Zia, Saeed Banawas, and **Roohi** (2021). Bioprospecting of the novel isolate *Microbacterium proteolyticum* LA2(R) from the rhizosphere of *Rauwolfia serpentine*. **Saudi Journal of Biological Sciences**, 29(3): 1858-1868, <https://doi.org/10.1016/j.sjbs.2021.10.038> (ISSN: 1319-562X) IF: 4.25
17. Vinod Kumar, Deepika Singh, Adity Majee, Shikha Singh, **Roohi**, Mehar Hasan Asif, Aniruddha P. Sane, Vidhu A. Sane (2021). Identification of tomato root growth regulatory genes and transcription factors through comparative transcriptomic profiling of different tissues. **Physiology and Molecular Biology of Plants**, 27(6):1173–1189, <https://doi.org/10.1007/s12298-021-01015-0>, (ISSN: 0971-5894) IF: 3.08
18. Deepika Singh, Pratima Debnath, **Roohi**, Aniruddha P. Sane and Vidhu A. Sane (2020). Expression of the tomato WRKY gene, SIWRKY23, alters root sensitivity to ethylene, auxin and JA and affects aerial architecture in transgenic Arabidopsis.

**Physiology and Molecular Biology of Plants**, 26(6):1187-1199. (ISSN: 0971-5894)  
IF:3.08 <https://doi.org/10.1007/s12298-020-00820-3>

19. Naushin Bano, Saba Siddiqui, Mohammad Amir and **Roohi** (2019). House of industrially important bioactive metabolites: A review on actinobacteria. *Indian Journal of Biotechnology*, 18: 293-304 (ISSN: 0972-5849) IF: 0.413, <http://nopr.niscpr.res.in/handle/123456789/54976>
20. Hena Jamali, Anjney Sharma, **Roohi** and Alok Kumar Srivastava (2019). Biocontrol potential of *Bacillus subtilis* RH5 against sheath blight of rice caused by *Rhizoctonia solani*. **Journal of Basic Microbiology**, 1-13. <https://10.1002/jobm.201900347> (ISSN: 0233111X, 1521-4028) IF: 3.1
21. Kulsoom Bano, M. Kuddus, Mohd. Rehan Zaheer, **Roohi** (2019). A novel, thermotolerant, extracellular PHB depolymerase producer *Paenibacillus alvei* PHB28 for bioremediation of biodegradable plastics. *Turkish Journal of Biochemistry*, 44(3): 344-353. DOI: <https://doi.org/10.1515/tjb-2018-0207> (ISSN Online: 1303-829X) IF: 0.401.
22. Zernab Fatima and **Roohi** (2019). Smart approach of solid waste management for recycling of polymers: A review. **Current Biochemical Engineering**, 5(1): 4-11. DOI: <https://10.2174/2212711905666181019114919> (ISSN (Print): 2212-7119).
23. Hena Jamali, Anjney Sharma<sup>1</sup>, Prity Kushwaha, Prem Lal Kashyap, **Roohi** and Alok Kumar Srivastava (2018). Exploitation of Multifarious Abiotic Stresses, Antagonistic Activity and Plant Growth Promoting Attributes of *Bacillus amyloliquefaciens* AH53 for Sustainable Agriculture Production. *International Journal of Current Microbiology and Applied Sciences*, 7(10): 751-763, <https://doi.org/10.20546/ijcmas.2018.710.083> (ISSN:2319-7706, Online)
24. Sridhar Mishra, Nuzhat Husain, Namrata Awasthi, Yahodhara Pradeep, **Roohi** and Sarita Saxena (2018). Liquid based cytology: do ancillary techniques enhance detection of epithelial abnormalities? *Archives of Gynaecology and Obstetrics* (Springer Publication) 298(1):159-169. IF: 2.28, <https://doi.org/10.1007/s00404-018-4763-z> (ISSN: 1432-0711).

25. Kulsoom Bano, Ritika Pandey, Jamal-e-Fatima, **Roohi** (2018). New advancements of bioplastics in medical applications. *International Journal of Pharmaceutical Sciences and Research*, 9(2): 1000-15. IF: 0.27. ISSN (Online): 0975-8232, [http://dx.doi.org/10.13040/IJPSR.09758232.9\(2\).4016](http://dx.doi.org/10.13040/IJPSR.09758232.9(2).4016) ISSN (Print): 2320-5148.
26. **Roohi**, Mohd. Rehan Zaheer, M. Kuddus (2017). PHB Poly  $\beta$  Hydroxybutyrate and its enzymatic degradation. *Polymers for Advanced Technology*, 29:30–40. IF: 3.34, DOI: 10.1002/pat.4126 (ISSN: 1042-7147).
27. **Roohi** and M. Kuddus (2017). Keratin Degrading Microbial Keratinase as a Tool for Bioremediation. *Journal of Microbiology & Experimentation*, 5(4): 00154-155
28. Sridhar Mishra, Namrata Awasthi, Nuzhat Husain, Akansha Anand, Yahodhara Pradeep, **Roohi**, Sarita Saxena (2017). Flowcytometric Analysis of DNA Ploidy in Liquid Based Cytology of Cervical Pre-cancer & Cancer. *Asian Pacific Journal of Cancer Prevention*, 18(6): 1595-1601. IF: 2.514. ISSN 2476-762X (Online) DOI:10.22034/APJCP.2017.18.6.1595
29. **Roohi**, Kulsoom Bano, M. Kuddus, Mohd. Rehan Zaheer, Qamar Zia, Ghulam Md Ashraf and Gjumrakch Aliev (2017). Microbial Enzymatic Degradation of Biodegradable Plastics. *Current Pharmaceutical Biotechnology*, 18(5): 429-440, (ISSN: 1389-2010), DOI: 10.2174/1389201018666170523165742, IF: 2.83,
30. **Roohi** and M. Kuddus (2017). Strain improvement studies on *Microbacterium foliorum* GA2 for production of purified  $\alpha$ -amylase in SSF: Biochemical characteristics and wash performance analysis at low temperature. *The Journal of General and Applied Microbiology*, 63: 347–354, doi 10.2323/jgam.2017.02.005 (ISSN: 0022-1260) IF: 1.3
31. **Roohi**, N. Jain and P.W. Ramteke (2016). Microbial laccase and its applications in bioremediation. *Current Biochemical Engineering*, 2: 1-12, DOI: 10.2174/2212711902999150923155722 (ISSN (Print): 2212-7119).
32. Mohd Rehan Zaheer, Anamika Gupta, Qamar Zia, Akil Ahmad, **Roohi**, Ali Hashlmon, Ghulam Md Ashraf, Jawaid Iqbal, Gjumrakch Aliev (2016). A comprehensive review on molecular mechanisms of drug photodegradation and photosensitization. *Current*

*Pharmaceutical Design*, 22: 768-782. doi: 10.2174/1381612822666151209151408  
(ISSN: 1381-6128 (print); 1873-4286 (web) IF: 2.6

33. Farrukh Naz, Adria Hasan, **Roohi**, Snober S. Mir (2016). Non-Polio Enterovirus D68 (EV-D68): Implications and Therapeutic Challenges. *Journal of Enzymology and Metabolism*, 2(1): 1-4 (ISSN:2455-4774).
34. **Roohi** and M. Kuddus (2015). Statistical optimization of cold-active chitinase production by mutagenized cells of multi-enzyme producing *Bacillus cereus* GA6. *Rendiconti Lincei*, 26: 271–280. DOI 10.1007/s12210-015-0447-9 (ISSN Print: 2037-4631) IF: 2.1
35. N. Jain and **Roohi** (2015). Seeds of *Vigna radiata* as a model to Study the Ecotoxic Potential of 2,4,6-Trichlorophenol. *World Journal of Environmental Biosciences*, 4(1): 1-6. (ISSN: 2277-8047)
36. **Roohi** and M. Kuddus (2014). Bio-statistical approach for optimization of cold-active  $\alpha$ -amylase production by novel psychrotolerant *M. foliorum* GA2 in solid state fermentation. *Biocatalysis and Agricultural Biotechnology*, 3:175-181, <http://dx.doi.org/10.1016/j.bcab.2013.09.007> (ISSN: 1878-8181) IF: 4
37. **Roohi**, M. Kuddus and Saima (2013). Cold-active detergent-stable extracellular  $\alpha$ -amylase from *Bacillus cereus* GA6: Biochemical characteristics and its perspectives in laundry detergent formulation. *Journal of Biochemical Technology*, 4(4): 636-644. (ISSN: 0974-2328)
38. Saima, M. Kuddus, **Roohi** and I.Z. Ahmad (2013). Isolation of novel chitinolytic bacteria and production optimization of extracellular chitinase. *Journal of Genetic Engineering and Biotechnology*, 11: 39-46, <http://dx.doi.org/10.1016/j.jgeb.2013.03.001> (ISSN: 2090-5920), IF: 3.6
39. M. Kuddus, **Roohi**, Saima, I.Z. Ahmad (2012). Cold-active extracellular  $\alpha$ -amylase production from novel bacteria *Microbacterium foliorum* GA2 and *Bacillus cereus* GA6 isolated from Gangotri glacier, Western Himalaya. *Journal of Genetic Engineering and Biotechnology*, 10: 151-159, <http://dx.doi.org/10.1016/j.jgeb.2012.03.002> (ISSN: 2090-5920), IF: 3.6

40. M. Kuddus, **Roohi**, J.M. Arif and P.W. Ramteke (2012). Structural adaptation and biocatalytic prospective of microbial cold-active  $\alpha$ -amylase. *African Journal of Microbiology Research*, 6(2): 206-213, DOI: 10.5897/AJMRX11.036 (ISSN: 1996-0808), IF: 0.5
41. **Roohi**, M. Kuddus, I.Z. Ahmad and J.M. Arif (2011). Production of cold-active extracellular  $\alpha$ -amylase by newly isolated *Microbacterium foliorum* GA2 from Gangotri glacier, Western Himalaya, India. *Asian Journal of Biotechnology*, 3(5): 449-459, DOI 10.3923/ajbkr.2011.449.459 (ISSN: 1996-0700)
42. M. Kuddus, **Roohi**, J.M. Arif and P.W. Ramteke (2011). An overview of cold-active microbial  $\alpha$ -amylase: Adaptation strategies and biotechnological potentials. *Biotechnology*, 10 (3): 246-258, DOI 10.3923/biotech2011 (eISSN: 1682-2978)

#### BOOK EDITED/ AUTHORED

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#### **Editor of Books**

**1. Name of Editors:** Mohammed Kuddus and **Roohi**

**Title of the Book:** Bioplastics for Sustainable Development

**Publisher:** Springer Publication

**Publication date:** June 2021

**ISBN:** 978-981-16-1822-2, ISBN 978-981-16-1823-9 (eBook)

<https://doi.org/10.1007/978-981-16-1823-9>.

**2. Name of Editors:** **Roohi**, Alvina Farooqui and Aisha Kamal

**Title of the Book:** Advancements in Environmental Biotechnology

**Publication date:** 2021

**ISBN:** 978-93-94070-17-2

**Publisher:** Aargon Press Publication, New Delhi

**3. Editorial Board Member for Souvenir preparation** in Indo-Uzbek Meet & International Conference on “Trends & Innovations in Food Technology: From Farm to Fork TIFT-2022, organized by Department of Bioengineering, Integral University, Lucknow, India during November 24<sup>th</sup>-25<sup>th</sup>, 2022.

**Souvenir ISBN:** 978-93-92953-39-2

### **Author of Books**

**1. Name of Authors:** **Roohi**, Jyoti Rani, Anamika Das and Kadiervel.K

**Title of the Book:** Nutrition Science

**Publisher:** AGPH Books (Academic Guru Publishing House), India

**Publication date:** 2023

**ISBN:** 978-81-19025-69-5

**2. Name of Authors:** Mohammed Rehan Zaheer and **Roohi**

**Title of the Book:** Practical Organic Chemistry

**Publisher:** Lambert Academic Publishing, book's, London

**Publication date:** 2018

**ISBN:** 978-613-9-88056-0

### **BOOK CHAPTERS**

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