

Faculty Details proforma for Gargi College



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Title		First Name	Taruna	Last Name	Singh	Photograph
Designation	Assistant Professor					
Address	E-20/134-135, Sector-3, Rohini, New Delhi-110085					
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	Residence*					
	Mobile*	9999536058				
Email	tarunachemistry@gmail.com					
Web-Page						
Educational Qualifications						
Degree	Institution				Year	
Ph.D	Jamia Millia Islamia				2014	
M.Sc	Jamia Millia Islamia				2009	
B.Sc	University of Delhi				2007	
Career Profile						
Administrative Assignments						
Areas of Interest / Specialization						
Inorganic Chemistry, Bioinorganic Chemistry, Organometallics, Coordination Chemistry						
Subjects Taught						
Inorganic Chemistry						
Research Guidance						
Recent Publications						
<ol style="list-style-type: none"> Taruna Singh, Sheikh Shreaz, Luqman Ahmad Khan, and Athar Adil Hashmi, High Potential Bioactive Oil based Bimetallic Polymer: Anticandidal Effect is via Inhibition of Ergosterol Biosynthesis. Materials Research Innovations, 204-212, 16, 2013, DOI: 10.1179/1433075X11Y.0000000048. Taruna Singh, Sumbul Ambreen, Sheikh Shreaz and Athar Adil Hashmi, Effect of Bimetallic Soybean Oil Based Polymer on Growth and Plasma Membrane H⁺- ATPase activity among Fungi. Journal of Polymers and the Environment, 81-87, 21 (2013), DOI: 10.1007/S10924-012-0454-1. Zaheer Khan, Taruna Singh, Javed Ijaz Hussain, Abdullah Yousif Obaid, Shaeel Ahmed AL-Thabaiti, E.H. El-Mossalamy, Starch-directed Green Synthesis, Characterization and Morphology of Silver Nanoparticles. Colloids and Surfaces B: Biointerfaces, 578-584, 102 (2013), 10.1016/j.colsurfb.2012.08.057, Impact Factor: 3.902. Citations- 46 Zaheer Khan, Taruna Singh, Javed Ijaz Hussain, Athar Adil Hashmi, Au(III)–CTAB reduction by Ascorbic Acid: Preparation and characterization of gold nanoparticles. Colloids and Surfaces B: Biointerfaces, 11-17, 104 (2013). 10.1016/j.colsurfb.2012.11.017. Taruna Singh, Sheikh Shreaz and Athar Adil Hashmi, Synthesis of Sunflower Oil Based Bimetallic Polymer and its Antifungal Studies. International Journal of Polymeric Materials and Polymeric Biomaterials, 653-662, 62 (2013), DOI: 10.1080/00914037.2013.769168. Taruna Singh, Nazia Umar Khan, Sheikh Shreaz and Athar Adil Hashmi, Anticandidal Activity of Cobalt Containing Sunflower Oil Based Polymer. Polymer Engineering & Science, 2650-2658, 53 (2013), DOI: 10.1002/pen.23508. Md Iqbal Ahmed Talukdar^a, Md.Khursheed Akram^b, TarunaSingh^c, Manzoor A.Malik^a, Ovas A.Dar^a, Athar A.Hashmi^a--“<i>In-situ</i> modification of castor oil with divalent metal ions like Zn (II), Cu (II), Co (II) and Ba (II) and their comparative antioxidant study by <i>in-vitro</i> methods” Food Chemistry, 213-218, 284 (2019), DOI: https://doi.org/10.1016/j.foodchem.2019.01.033. 						

▪ **Book Chapter**
1. **Taruna Singh** and Athar Adil Hashmi, Cobalt and Zinc Containing Plant Oil Based Polymer: Synthesis and Physicochemical Studies. **Chemistry of Phytopotentials: Health, Energy and Environment Perspectives**, Springer e book Section C, 275-278 (2012), DOI: 10.1007/978-3-642-23394-4_58.

Conference Proceeding:

1. **Taruna Singh**, Raj Kishore Sharma and Gurmeet Singh, MnO₂ Nanoparticles Embedded Polypyrrole Nanotubes for Supercapacitor Electrodes. **Green Chemistry in Environmental Sustainability and Chemical Education, Conference Proceeding**, 255-264 (2018), DOI: 10.1007/978-981-10-8390-7

Conference Organization/ Presentations

ORAL PRESENTATIONS

1. **Taruna Singh** and Athar Adil Hashmi --“Bioactive Organozinc and Nickel Materials: Synthesis, Characterisation and Biological Studies” presented in **First National Conference on Recent Advances in Polymer Nanocomposites** at Department of

POSTER PRESENTATIONS

Physics, Zakir Hussain College, University of Delhi, New Delhi, India January 14-15, 2011

2. **Taruna Singh** and Athar Adil Hashmi --“Cobalt and Zinc Containing Plant Oil Based Polymer: Synthesis and Physicochemical Studies” presented in **International Conference on Chemistry of Phytopotentials: Health, Energy and Environmental Perspectives** at Dayalbagh Educational Institute, Agra, India, November 4-6, 2011.

3. **Taruna Singh** and Athar Adil Hashmi --“Preparation and Physicochemical Studies of Linseed Oil Based Polymer Nanocomposites” presented in the **Seminar on Recent Advances in Chemistry** at Department of Chemistry, Jamia Millia Islamia, New Delhi, India, March 12, 2012.

1. **Taruna Singh**, Kumud Ranjan, Anujit Ghosal and Saiqa Ikram --“Development of Chitosan Based Haemostatic Materials” presented in **National Seminar on Polymer Science & Technology Vision & Scenario (Polymer – 08)** at Jamia Millia Islamia, New Delhi, India, December 3, 2011.
2. **Taruna Singh**, Nazia Umar Khan, Urvashi Singh and Athar Adil Hashmi --“Supramolecular Polymer: Preparation, Characterization and Antimicrobial Studies” presented in **International Conference on Supramolecular Chemistry** at Department of Chemistry, University of Mumbai, Mumbai, India, February 14–16, 2011.
3. **Taruna Singh**, Urvashi Singh and Athar Adil Hashmi --“Development of Metal containing Polymer and its Physicochemical and Biological Studies” presented in **International Conference on Supramolecular Chemistry: Frontiers and Challenges** at Department of Chemistry, Aligarh Muslim University, Aligarh, India, March 5-6, 2011.
4. **Taruna Singh** and Athar Adil Hashmi --“Synthesis and Characterization of Sunflower Seed Oil based Polymer Nanocomposites” presented in the Seminar on **Recent Advances in Chemistry** at Department of Chemistry, Jamia Millia Islamia, New Delhi, India, March 22, 2011.
5. **Taruna Singh** and Athar Adil Hashmi --“Synthesis of Oil based Polymer using Microwave Assisted Polymerisation Technique: Characterization and Biological Studies” presented in **Aligarh Muslim University Workshop on Nanoscience and Nanotechnology** at Department of Applied Physics, Aligarh Muslim University, Aligarh, India, March 26-27, 2011.

POSTER PRESENTATIONS

6. **Taruna Singh** and Athar Adil Hashmi --“Linseed Oil Based Polymer Nanocomposites: Preparation and Biological Studies” presented in the **Seminar on Chemistry in our lives- Issues and Challenges** at Department of Chemistry, Jamia Millia Islamia, New Delhi, India, March 28, 2011.

7. **Taruna Singh** and Athar Adil Hashmi --“Edible Oil Based Bimetallic Bioactive Polymer Nanocomposites: Synthesis, Characterization and Biological Studies” presented in **7th National Symposium and Conference on State Chemistry and Allied Areas, ISCAS- 2011** at Department of Chemistry, Jamia Millia Islamia, New Delhi, India, November 24-26, 2011.

8. **Taruna Singh** and Athar Adil Hashmi --“Biological and Physicochemical Studies of Soybean Oil Based Polymer Nanocomposites” presented in **First National Workshop on Fibre Optics, Photonics and Nanoelectronics [FOPN-1]** at Department of Physics, Zakir Hussain College, University of Delhi, New Delhi, India, February 6-7, 2012.

9. **Taruna Singh** and Athar Adil Hashmi --“Synthesis, Characterization, Thermal and Biological Studies of Sunflower Oil Based Polymer” presented in **APA International Congress on Advances in Healthcare Systems**, organized by IIT Delhi and Jamia Hamdard at Indian Habitat Centre, New Delhi, India, December 20-24, 2012.

10. **Taruna Singh** and Athar Adil Hashmi --“Synthesis, Characterization and Biological Studies of Zinc Oxide Nanoparticle/Soybean Oil Based Polymer” presented in Fourth Conference on **Recent Advances in Polymer Technology** at Department of Chemical Technology, North Maharashtra University, Jalgaon, India, March 2-3, 2012.

11. **Taruna Singh** and Athar Adil Hashmi --“Bimetallic Plant Oil based Polymer: Preparation and Physicochemical Studies” presented in **International Conference “Chemical Constellation Cheminar-2012” [CC-2012]** at Department of Chemistry, NIT-Jalandhar (Punjab) India, September 10-12, 2012.

12. **Taruna Singh** and Athar Adil Hashmi --“Synthesis and Characterization of Natural Oil Based Metal Nanoparticle Polymer” presented in **International Conference on Interface between Chemistry and Environment** at Ramjas College, University of Delhi, Delhi-110007, India. December 13-14, 2012.

13. **Taruna Singh** and Athar Adil Hashmi --“Plant Oil Based Polymer: Synthesis and Physicochemical Studies” presented in **National Workshop on Innovative Green Techniques for Safe Potable Water in India** at Department of Physics, Zakir Hussain College, University of Delhi, New Delhi, India, January 10-11, 2013.

POSTER PRESENTATIONS

<p>14. Taruna Singh and Athar Adil Hashmi --“Synthesis and Characterization of Cobalt Cont Based Polymer” presented in National Seminar on Frontier & Challenges in Pharmace Environmental Chemistry at Department of Chemistry Dyal Singh College, University New Delhi, India, March 1-2, 2013.</p> <p>15. Taruna Singh and Athar Adil Hashmi --“Preparation of plant oil based bimetallic polyn biological Studies” presented in National Seminar on Chemistry in Interdisciplinary Ap at Department of Chemistry Hans Raj College, University of Delhi, New Delhi, India, March</p> <p>16. Taruna Singh, Raj Kishore Sharma and Gurmeet Singh - “Manganese Oxide Nan Immobilized Polypyrrole Nanotubes for Supercapacitor Electrodes” presented in Int Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016) at Nanoscience and Nanotechnology, Jamia Millia Islamia (A Central University), New De November 4 & 5, 2016.</p> <p>17. Taruna Singh, Raj Kishore Sharma and Gurmeet Singh - “Preparation and Characterization Nanoparticles embedded Polypyrrole Nanotubes for Electrochemical Supercapacitor” pr International Conference on Green Chemistry in Environmental Sustainability and Education (ICGC-2016) at Department of Chemistry, Daulat Ram College, University Of I Delhi, India, November 17 & 18, 2016.</p>	
<ul style="list-style-type: none"> • Post Doc Fellow in Department of Chemistry, University of Delhi under the project sanctioned by DST (Women Scientist B Scheme) on topic entitled “Physiochemical interactions of MnO₂ nanoparticles with polypyrrole nanotube towards improved performance in super capacitor electrodes” from 22nd July, 2015 to 19th July, 2017. 	
<p>Awards and Distinctions</p> <ul style="list-style-type: none"> • Ranked 3rd in Oral Presentation on topic entitled --“Preparation and Physicochemical Studies of Linseed Oil Based Polymer Nanocomposites” presented in the Seminar on Recent Advances in Chemistry at Department of Chemistry, Jamia Millia Islamia, New Delhi, India, March 12, 2012. • Participated as an active volunteer in 7th National Symposium and Conference on Solid State Chemistry and Allied Areas, ISCAS- 2011 at Department of Chemistry, Jamia Millia Islamia, New Delhi, India, November 24-26, 2011. <p>Best Poster Award on topic entitled “Plant Oil Based Polymer: Synthesis and Physicochemical Studies” presented in National Workshop on Innovative Green Techniques for Safe Potable Water in Villages at Department of Physics, Zakir Husain College, University of Delhi, New Delhi, India, January 10-11, 2013.</p>	
<p>Association With Professional Bodies</p>	
<p>Other Activities</p> <p>Pathfinder Project:</p> <ol style="list-style-type: none"> 1. Worked as Mentor in Pathfinder winning Project on “Negative Impact of Aluminium Foil on Youth’s Health and Environment” in Academic Year 2018-19. Student Involved: Jayantika Kalani, B.A. Programme III Year. 2. Worked as Mentor in Pathfinder Project on “Preparation of activated carbon from tea leaf waste” in Academic Year 2018-19. Students Involved: Divya Chawla and Rachna Singh, B.Sc (H) Chemistry II Year. 3. Worked as Mentor in Pathfinder Project on “Preparation of Metal Nanoparticles Incorporated Paper Using Organic Waste” in Academic Year 2018-19. Student Involved: Yuktika and Sanchita Mitra, B.Sc. Life Science III Year. 	