

Curriculum Vitae

Name: Dr. Mohini M. Kute

Qualification: M. Sc. (Physical Chemistry), Ph.D (Nuclear Chemistry).

Academic Qualifications:

| Examination Passed | Month and Year of Passing | Department or College | University | Class |
|----------------------------|---------------------------|--|------------|---------------|
| Ph.D | December 2009 | Department of Chemistry, University of Pune. | Pune | - |
| M.Sc. (Physical Chemistry) | July 2002 | Department of Chemistry, University of Pune. | Pune | Higher second |
| B.Sc. Chemistry | June 2000 | Abeda Inamdar Senior College Girls. | Pune | First |

Title of Thesis: Diffusion of Cr (III) and Fe (III) ions and their salts in agar gel medium

High Lights

- Received the “**Best oral presentation award**” in the National Conference, held at department of Chemistry, Modern College of ASC, Ganeshkhind, Pune, 2018.
- Recipient of “**Best Paper award**” in the National Conference “Frontiers in Physical, Chemical, Biological Sciences”, held at Department of Chemistry, University of Pune, 2013.
- Recipient of “**Young Scientist award**” at conference organized by “Indian Council of Chemists”, at the national conference held at Patan, 2009.
- Published seven papers in international journals and one in national journal.
- Presented paper at several national and international conferences

Research Experience

- Worked as Research fellow (equivalent to Senior Technical Officer) in Ground water Surveys and Development Agency (GSDA), Govt. of Maharashtra, Pune division, Pune. Experience of assessing water quality parameters.

- Experience of handling Flame Photometer, Spectrophotometer, AAS etc. Completed my Ph.D. on the topic “**Diffusion of Cr(III) and Fe(III) ions and their salts in agar gel medium**” under the guidance of Prof.(Mrs.) N. S. Rajurkar in Department of Chemistry University of Pune, December 2009.
- Published eight research papers in Peer reviewed national and international journals International-7 National-1. Attended various workshops and national conferences related to Chemistry held at various places.

Research Area of interest:

Radio-analytical, Nuclear chemistry, Material science, Environmental sciences, Analytical chemistry.

Teaching Experience

- Practical's on water analysis and lectures on analytical techniques for Semester I & III of M.Sc Environmental science, University of Pune.
- Assisting Dr. Rajurkar in Administrative work of P.G.B.Sc Applied Analytical Techniques and teaching at P.G.B.Sc applied analytical techniques Course on water pollution held in Department of Chemistry, University of Pune.
- Guest lectures on statistical thermodynamics for term I of M.Sc I, physical chemistry at the C.T.Bora College, Shirur.
- Teaching Chemistry in Modern College, Ganeshkhind, Pune from the year 2005-2006 and from 2007 up till date.

List of Papers published in Journals

International journals

- Adsorption of methylene blue using Ni/Fe layered double hydroxide, Mohini Kute, Hemangi Deo and Swati Pai, 2018, Vol. 7, Issue 1, Part D,190-192.
- Analysis of bottled water samples in and around Pune region, Madhuri Kulkarni, Mohini Kute, Bhavana Katkar and Kajal Shinde, 2018, Vol. 7, Issue 1, Part D, 231-234.
- Diffusion of Fe³⁺ Ions in Agar Gel Medium Containing Transition Metal Sulfates at Different Electrolyte Concentration, N. S. Rajurkar and Mohini Kute, Journal of Applicable Chemistry (2017), 6(4), 533-542.
- Activation energy for diffusion of Fe³⁺ ions in agar gel medium containing Fe₂(SO₄)₃, N.S.Rajurkar and Mohini Kute, Environment Observer, 2013, 13, 99-100.
- Tracer Diffusion of Cr³⁺ Ions in Agar Gel Media Containing Transition-Metal Sulfates, N. S. Rajurkar and Mohini Kute, J. Chem. Eng. Data (2010), 55, 1804–1807.

- Determination of Activation Energy for the Diffusion of Fe^{3+} Ions in Agar Gel Medium Containing Various Transition Metal Sulfates, N.S.Rajurkar and Mohini Kute, J.Solution.Chem (2010) 39: 87–95.
- Applicability of transition state theory to diffusion of Cr^{3+} ions in agar gel medium containing CoSO_4 electrolyte solution, N.S.Rajurkar and Mohini Kute, Asian J.Chem. and Environ. Research, 2 (2009) 10-12.
- Study of obstruction effect and activation energy for tracer diffusion of chromium ions in agar gel containing transition metal Sulphates, N.S.Rajurkar and Mohini Kute, J.Molecular liquids, 142 (2008) 6-9.
- Effect of concentration of electrolyte on the activation energy for diffusion of chromium sulphate in agar gel medium, N.S.Rajurkar and **Mohini Kute**, Proceedings of DAE-BRNS, Nuclear and Radiochemistry Symposium (NUCAR 2007); Vadodara, 2007, 14-17 Feb.

National Journal

- Diffusion of potassium dichromate in agar gel medium, N.S.Rajurkar and Mohini Kute, J. Ind. Council. Chem., 24 (2008) 94-97.

List of Papers presented at conferences

- Analysis of bottled water samples in and around Pune region, presented a paper in the National conference on “Chemical Sciences-An interdisciplinary Approach”, organized by Department of Chemistry, Modern College of ASC, Ganeshkhind, Pune during 18-20th January 2018. **Received a Best Oral Presentation Award.**
- Activation energy for diffusion of Fe^{3+} ions in agar gel medium containing $\text{Fe}_2(\text{SO}_4)_3$ presented a paper in the National conference on “Frontiers in Physical, Chemical and Biological sciences, organized by Department of Chemistry, University of Pune, Pune during- 4-6th October 2013. **Received a Best Oral Presentation Award.**
- Determination of Activation Energy for the Diffusion of Fe^{3+} Ions in Agar Gel Medium Containing Zinc Sulfate presented a Paper in the 31st National Conference organized by the Indian Council of Chemists, to be held at University of Rajkot, Gujarat during 26-28th December 2012.
- Presented a paper at the international conference of Indian council of chemists held at Bangkok during 12-14th June 2011.
- Presented a Paper at the Fourth international symposium on Nuclear Analytical Chemistry held at Bhabha atomic Research Centre, Trombay, Mumbai, 15-19th November 2010.
- Self diffusion of Fe^{3+} ions in ferric sulphate electrolyte, N.S.Rajurkar and Mohini Kute, presented at the national conference of Indian council of Chemists held at Patan, 2009, **Recipient of the Young scientist Award.**

- Applicability of transition state theory to diffusion of Cr^{3+} ions in agar gel medium containing NiSO_4 electrolyte solution, N.S.Rajurkar and Mohini Kute, to be presented at the national conference of Indian council of Chemists held at Haridwar, 2008.
- Obstruction effect for tracer diffusion of chromium ions in agar gel medium containing cobalt sulphate, N.S.Rajurkar and Mohini Kute, presented at the national conference of Indian council of Chemists held at Saugar, Madhya Pradesh, 2007.
- The effect of concentration on the activation energy for electrolyte diffusion of chromium sulphate in agar gel medium, N.S.Rajurkar and Mohini Kute, presented at the international conference of Nuclear and Radiochemistry held at Baroda, 2007.
- The effect of concentration on the activation energy for self diffusion of chromium ions in chromium sulphate in agar gel medium, N.S.Rajurkar and Mohini Kute, presented at the national conference of Indian Council of Chemists held at Kalyan, 2006.
- Electrolyte diffusion of potassium dichromate in agar gel medium, N.S.Rajurkar and Mohini Kute, presented at the national conference of Indian council of Chemists held at Ranchi, 2005.

Conferences attended

- Attended a national conference on “Current trends in science and technology” organized by Indian women scientists association held at department of Chemistry, University of Pune, Pune during 28-30th November 2013.
- Attended an international conference on “Emerging trends in chemistry” held at Department of Chemistry, University of Pune, Pune during 5-7th January 2010
- Attended a National Symposium on Modern trends in Chemistry held at Department of Chemistry, University of Pune, Pune during 20-21st March 2008.

List of Workshops attended

- Attended a workshop on “Chemical education ” at the Indian Institute of Scientific and Educational Reserach , Pune, during December 2014.
- Attended a “Workshop for Credit System for Post Graduation in Science” held at Department of Chemistry, Nowrosjee Wadia College, Pune on 3rd August 2013.
- Attended the 81st DAE BRNS-IANCAS, National Workshop on nuclear and radiation Chemistry held during 19-25th November 2012, organized by Department of Chemistry, University of Pune, Pune in collaboration with Indian Association of Nuclear Chemists and Allied Scientists.
- Attended a workshop on ‘Scientific Writing and Communication Skills’ by Vidnyanbharati & Department of Chemistry, University of Pune during February 9-10, 2008.
- Attended a workshop on 62nd BRNS-IANCAS National Workshop on ‘Radiochemistry and its Applications to Multiple areas organized jointly by Chemistry department

Mithibhai College, Mumbai and Indian Association of Nuclear Chemists and Allied Scientists, October 28- November 11, 2006.

Workshops

- Delivered a lecture in a three day workshop for S.Y.B.Sc students conducted on “Analytical techniques “by Department of Chemistry, Modern College, Ganeshkhind in June 2015
- Attended two day International workshop at IISER on “Education in Chemistry” in Dec 2014.
- Attended two day workshop on “Technical Skill Development” at Modern College Ganeshkhind in Jan 2014.
- Attended two day workshop on NET-SET guidance at Modern College in Feb 2015, Feb 2013 and Feb 2012.
- Attended the 81st DAE BRNS-IANCAS, National Workshop on nuclear and radiation Chemistry held during 19-25th November 2012, organized by Department of Chemistry, University of Pune, Pune in collaboration with Indian Association of Nuclear Chemists and Allied Scientists.
- Dr. Mohini Kute and Dr. Mukula Kulkarni have attended a workshop on ‘Scientific Writing and Communication Skills’ by Vidnyanbharati & Department of Chemistry, University of Pune during February 9-10, 2008.
- Dr. Mohini Kute has attended a workshop on 62nd BRNS-IANCAS National Workshop on ‘Radiochemistry and its Applications to Multiple areas organized jointly by Chemistry Department Mithibhai College, Mumbai and Indian Association of Nuclear Chemists and Allied Scientists, October 28- November 11, 2006.

Dr. Mohini Gupte