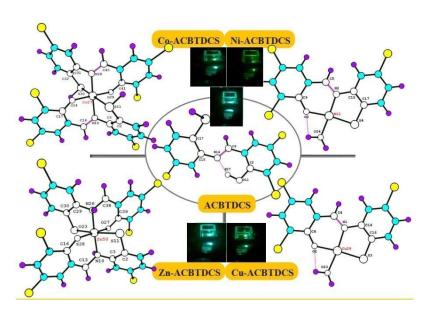
Faculty Profile



DR. BRAJENDRA SINGH KUSMARIYA

(M.Sc., Ph.D.)

Assistant Professor & Head, Department of Chemistry, Govt Kamla Nehru Mahila Mahavidyalaya, Damoh, India-470661

(*Best Presentation-* 103rd ISCA Mysuru 2016; *Young Scientist*-Inorganic Chemistry Section: 32nd Indian Council of Chemist,2013; *Orchid ID:* 0000-0003-1681-5610; *Life member*- Vijnana Bharti; *Scopus Author ID:* 56798399200; *Researcher ID:* AAQ-8343-2020; *vidwan Profile URL:* https://vidwan.inflibnet.ac.in/profile/144792 Google Scholar citation: 82, H-index: 5)

BRIEF INTRO

Currently, he is working as an Assistant Professor & Head. Department of Chemistry at Govt K.N.M.M. Damoh (M.P.). Previously He worked at Azim Premji Foundation as a Resource Person. He did his PhD in Chemistry from Dr. Harisingh Gour Central University Sagar, India in 2017. His research interest mainly focused on structure properties and applications of metal complexes. He published a number of research paper in repute journals. He is also awarded by several societies for his contribution in science.

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CURRICULUM VITAE



Dr. Brajendra Singh Kusmariya

Assistant Professor & Head, Department of Chemistry

Govt Kamla Nehru Mahila Mahavidyalaya, Damoh, India-470661

Email id: kusmariya@gmail.com Contact No.: +919981427406

CURRENT POSITION

Assistant Professor & Head: Department of Chemistry, Govt Kamla Nehru Mahila Mahavidyalaya, Damoh, India-470661.

PREVIOUS POSITION/EXPERIENCE

- ♦ Head, Department of Chemistry, Govt Kamla Nehru Mahila Mahavidyalaya, Damoh, India-470661 since Dec-2021
- ❖ Assistant Professor: Department of Chemistry, Govt Kamla Nehru Mahila Mahavidyalaya, Damoh, India-470661 since Dec-2019
- **♦ Resource Person** in Field Institute-Sagar, AzimPremji Foundation, Madhya Pradesh, India since Dec-2016 to Dec-2019.
- ❖ Guest Faculty in 'Diploma Course in Mushroom Chemistry Semester-II' Community College (UGC Sponsored), Dr. Harisingh Gour Vishwavidyalaya, Sagar (A Central University), India-470003 since Mar-16 to Aug-2016.
- ❖ Chemistry teacher and Lab instructor (Undergraduate course-Inorganic Chemistry) under teaching assistance fellowship during Ph.D. at Department of Chemistry, Dr. Harisingh Gour Vishwavidyalaya, Sagar (A Central University), India-470003 since Jan-12 to Jun 2015.
- Lecturer (Engineering Chemistry) at Vedica Institute of Technology, Bhopal, India since Sep-09 to Aug 2010.

DATE OF BIRTH: 20/08/1984

ACADEMICS

- ❖ Ph.D. (Chemistry) from Dr. Harisingh Gour Vishwavidyalaya Sagar (A Central University), India, 2017.
- M.Sc. (Applied Chemistry) from Rajiv Gandhi Proudyogiki Vishwavidyalaya Bhopal, 73.1%, 2009.
- ♦ B.Sc. (Chemistry, Botany, Zoology) from Dr. Harisingh Gour Vishwavidyalaya Sagar, 69.7%, 2007.
- ♦ Higher Secondary (12th; Science Subject) From M.P.Board, **84.6%**, 2002.
- ♦ High School (10th) From M.P.Board, **90.4%**, 2000.

RESEARCH PROFILE

(ORCHID ID: 0000-0003-1681-5610; Scopus Author ID: 56798399200; Researcher ID: AAQ-8343-2020; vidwan Profile URL: https://vidwan.inflibnet.ac.in/profile/144792 Google Scholar citation:82, H-index: 5)

(A) Research Area

Coordination Chemistry, Bioinorganic Chemistry, Computational Chemistry

(B) Research Supervisor

Prof. A. P. Mishra

D.Phil., D.Sc.(Alld), FIC, MNASc.

Department of Chemistry, Dr. Harisingh Gour Vishwavidyalaya, Sagar (A Central University), India-470003

{Sectional President-Chemical Sciences 102nd Indian Science Congress- 2015; Coordinator-IGNOU Study Centre- 1507; Council Member-Indian Chemical Society (2014-16); Vice-President ICC}

Mob No. 09425425938 Email: apmishrasagar@gmail.com

(C) Work Profile

To investigate the structure properties and applications of metal complexes by various techniques viz. FT-IR, Raman, uv-vis, ¹H-NMR, PXRD, SEM-EDX, Fluorescence, Thermal and Cyclic Voltammetry etc. and by computational methods (DFT, Docking etc.).

(D) Subject/Paper taught at UG/PG level

Inorganic Chemistry, Application of Spectroscopy, Photochemistry

ACHIEVEMENTS

- 1) Awardee-**Fellowship for Training of Young Scientist** of M.P. Council of Science & Technology, Bhopal, Feb. 28-29, 2016
- 2) **Best Poster Award** (Chemical Sciences section) in 103rd Indian Science Congress Association, Mysore University; Mysuru (Karnatak), 3rd-7th Jan, 2016.
- 3) Awardee-**Fellowship for Training of Young Scientist** of M.P. Council of Science &Technology, Bhopal, Feb. 28th –Mar. 1st, 2015.
- 4) **Best Paper presentation** in National Research Seminar on Recent Trends in Chemical Sciences, sponsored by *University Grant Commission CRO-Bhopal* at Govt. P.G. College (Autonomous), Datia, 21st -22nd Feb, 2014.
- 5) Young Scientist Award (Inorganic Chemistry Section) in 32nd Annual Conference, Indian Council of Chemist organized by Karnatka University, Dharwad (Karnatak), 28th -30th Nov, 2013.

PUBLICATIONS

Book:01, Research Paper: 11

A. Books:

1) **Brajendra S. Kusmariya,** A. P. Mishra; Schiff Base Metal Complexes: Synthesis Structure and Properties;LAP LAMBERT Academic Publishing Germany, 2018. ISBN: 978-613-7-43191-7.

B. Research Papers:

- 1) SandeepTiwari, **Brajendra S. Kusmariya**, Anjali Tiwari, V. Pathak and A.P. Mishra; Acoustic and Viscometric Studies of Atropine Sulphate with Life Essential 3d-TransitionMetal Ions in Aqueous Medium; *Malaysian Journal of Chemistry*, 23(3), 1-11, (2021)
- 2) **Brajendra S. Kusmariya**, A. P. Mishra; Co(II), Ni(II), Cu(II) and Zn(II) complexes of tridentate ONO donor Schiff base ligand: Synthesis, Characterization, Thermal, Non-isothermal kinetics and DFT calculations; *Journal of Molecular Structure*, 1130, 727-738, (2017), DOI: 10.1016/j.molstruc.2016.11.009
- **3) Brajendra S. Kusmariya**, Anjali Tiwari, Gowhar Ahmad Naikoo, A. P. Mishra; Spectroscopic, thermal, non-isothermal decomposition kinetics and quantum chemical computational studies of Ni(II) and Cu(II)-Schiff base complexes; *Research on Chemical Intermediates*, 43(3), 1671-1687, (2017),DOI: 10.1007/s11164-016-2722-5
- 4) SandeepTiwari, **Brajendra S. Kusmariya**, Anjali Tiwari, V. Pathak and A.P. Mishra; Acoustical and Viscometric studies of Buspirone Hydrochloride drug with Cobalt(II) & Copper(II) metal ions

- in aqueous medium; *Journal of Taibah University for Science*, 11,101-109,(2017) DOI: 10.1016/j.jtusci.2015.10.012
- 5) Anjali Tiwari, A. P. Mishra and **Brajendra S. Kusmariya**; Synthesis, characterization, thermal and non-isothermal degradation studies of two mononuclear Nickel and Copper complexes containing Schiff base moiety; *International Journal of Current Advanced Research*, 7 (4), (2018), 11606-11609.
- 6) Anjali Tiwari, A. P. Mishra and **Brajendra S. Kusmariya**; Synthesis, Spectral Characterization, Thermal and Theoretical Studies of Two Co(II) and Ni(II) Coordination Complex with N, O Donor of 2-Chloro-6-[(3-hydroxy-4-methoxybenzylidene) amino]-4-Nitrophenol, *Journal of Applicable Chemistry*, 7 (4), (2018), 883-891.
- 7) **Brajendra S. Kusmariya**, Anjali Tiwari, A. P. Mishra, Gowhar Ahmad Naikoo; Theoretical and experimental studies of Cu(II) and Zn(II) coordination compounds with N,O donor bidentate Schiff base ligand containing amino phenol moiety; *Journal of Molecular Structure*, 1119, (2016), 115-123, DOI: 10.1016/j.molstruc.2016.04.056
- 8) **Brajendra S. Kusmariya**, SandeepTiwari, Anjali Tiwari, A. P. Mishra, Gowhar Ahmad Naikoo, Umar J. Pandit; Theoretical and experimental studies of two Co(II) and Ni(II) coordination complex with N,O donor 2-chloro-6-{[(4-hydroxy-3-methoxyphenyl)-methylidene]amino}-4-nitrophenol ligand; *Journal of Molecular Structure*, 1116, (2016), 279-291, DOI: 10.1016/j.molstruc.2016.03.029
- 9) **Brajendra S. Kusmariya**, A. P. Mishra; Experimental, theoretical and docking studies of 2-hydroxy Schiff base type compounds derived from 2-amino-4-chlorobenzenethiol; *Journal of Molecular Structure*, 1101, (2015) 176-188, DOI: 10.1016/j.molstruc.2015.08.026.
- 10) **Brajendra S. Kusmariya**, A. P. Mishra; Theoretical and experimental studies on three new coordination complexes of Co(II), Ni(II) and Cu(II) with 2,4-dichloro-6-{(E)-[(5-chloro-2 sulfanylphenyl)imino]methyl}phenol Schiff base ligand; *Journal of Molecular Modeling*, 21, (2015), 278, 1-14 DOI: 10.1007/s00894-015-2805-z
- 11) A. P. Mishra, **Brajendra S. Kusmariya**, R. K. Jain; Prominent tools in synthetic pathways of green technology: microwave & ultrasonic irradiation; *Everyman's Science*, XLIX (5) Dec.14-Jan15, 307-310.
- 12) SandeepTiwari, **Brajendra S. Kusmariya**, Anjali Tiwari, V. Pathak and A. P. Mishra; Acoustic and Viscometric studies of manitol with life-essential Co(II) and Cu(II) metal ions in aqueous medium at 298.15 K; *Journal of Applicable Chemistry* 4 (1), (2015), 308-317

Responsibilities/Membership/Fellowship of Professional/ Academic Bodies, Societies etc.:

- E-content creator: BSc I year & II year 2021 & 2022 (Department of Higher Education Madhya Pradesh Bhopal)
- Subject expert: Aklavya University, Damoh, 2020-21
- **Reviewer**: Scopus indexed journal
- **Invited Speaker:** Guest lecture/Invited Lecture/Key note Lecture
- **Program coordinator:** 'two-day faculty development program' at Govt KNMM Damoh, 2021.
- **Program Coordinator:** National Seminar on 'New Education Policy-2020' at Govt KNMM Damoh 2022.
- **Program coordinator:** 'Alumni annual program' at Govt KNMM Damoh, 2022.

- **Co-covener:** 'PANDEMIC COVID-19 AWARENESS PROGRAM: ONLINE QUIZ' organized by Department of Chemistry, Govt Kamla Nehru Mahila Mahavidyalaya, Damoh, dated 6-14 June 2020.
- Co-convener: 'CHEMISTRY: ONLINE QUIZ' organized by Department of Chemistry, Govt Kamla Nehru Mahila Mahavidyalaya, Damoh, dated 6-14 June 2020.
- Member: IQAC, RUSA, CM Helpline, Scholarship, Janbhagidari Chayan Samiti, Laboratory maintenance, Infra development & constr. College Committees.
- Societies/Professional Bodies: Life member- VijnanaBharti (Id-27814)

WORKSHOPS ATTENDED

- A. Course Work under Global Initiative for Academic Networks (MHRD-Govt. of India) Scheme: 2
- 1) Successfully completed with 'A' grade a two week course work (2 credits) on **X-ray Structure Determination** (Instructor: **Prof. Ray J. Butcher**, Department of Chemistry, Howard University, Washington DC, U.S.A.) at Jiwaji University, Gwalior, 13th -26th June, 2016.
- 2) Successfully completed with 'C' grade a one week course work (1 credit) on **Green and Sustainable Chemistry** (Instructor: **Prof. Takashi Ohshima**, Graduate School of Pharmaceutical Science, Kyushiu University, Japan) at Dr. Harisingh Gour University, Sagar, India-470003; 25th 30th Jan, 2016.
- B. Webinars/Online Seminars/Online Quiz (COVID-19 Period)

Webinars: 14

- 1) Five-part Online training programme on 'Smarter experimentation for chemists' organized by Chemistry World with JMP & Royal Society of Chemistry dated 22nd Jun-26th Jun 2020.
- 2) Science Leadership Workshop organized by Central University of Punjab, Bathinda, India from 22nd Jun3-28th June, 2020.
- 3) Webinar on 'Higher Education Post COVID-19' organized by Rungta (R1) group of Institutions on dated 23rd May 2020.
- 4) National Webinar on 'Organic Chemist and Spectroscopy: Introduction of NMR and its Applications in Structure Determination' organized by ShriVaishnavVidyapeethVishwavidyalaya, Indore on dated 28th May 2020.
- 5) One Day (Webinar) on 'Online Training cum Workshop on FT-IR' organized by SIRT-P Sagar group of Institutions on dated 26th May 2020.
- 6) International Webinar on 'Material Science (IWMS-20202) organized by Association of Chemistry Teachers (ACT) &Madhav Science Post Graduate College Ujjain &Kamla Nehru Mahavidyalaya Nagpur on dated 9th June 2020.
- 7) International Webinar on "Cyclic and Linear Sweep Voltammetry-Fundamentals & Applications" conducted by the Bhaktavatsalam Memorial College for Women Chennai on 31st May 2020.
- 8) One Week International Webinar on Materials Characterization and the Analysis (IWMCA-2020) organized by the Department of Physics, ISLE, IPS Academy, Indore, India in association with Indian Association of Physics Teachers (IAPT, RC-9) from 25th-31st May, 2020.
- 9) One Day Webinar on 'E-Learning/ICT based Education' organized by Jawaharlal Institute of Technology Borawan on dated 24th May 2020.
- 10) One Week National E-short term course on "Nature's Altruism and our Contribution" organized by Govt. SNPG College, Khandwa, M.P. between May 28 June 03, 2020.

- 11) Webinar on 'Do we need theory to teach speaking skills?' Certified by Tamsin Hart, Cambridge Learning for Schools Webinar Host, Cambridge University Press on 1st June 2020.
- 12) Webinar on 'Teaching Design of Experiments to chemists: Lessons from Imperial College London' organized by Chemistry world Webinars JMP on 26th May 2020.
- 13) One Day Webinar on 'Nanomaterials: Synthesis and Applications' organized by Govt PG College Bareli DisttRaisen (M.P.) on dated 15th June 2020.
- 14) International Virtual Conference on 'Recent Trends in Applied Sciences (IVCRTAS-2020)' organized by Government College Alote, Dist. Ratlam, Madhya Pradesh, India on 21st June 2020.
- 15) National webinar on 'The Pandemic Pandemonium: Reverse Migration and its Impact on Indian Economy' organized by Government Kamla Nehru MahilaMahavidyalayaDamoh, India on 11th June 2020.

Online Quiz: 12

- 1) Participate in an Online Quiz by Department of Chemistry, Govt. College, PathariyaDistt. Damoh (M.P.) on 30th Jun 2020.
- Participate in an Online Quiz on "Fundamental Rights and Duties in Constitution of India" organised by Department of Political Science, B.K.S.N. Govt. College, Shajapur (M.P.) on 31st May 2020.
- 3) Participate in an Online Quiz on "COVID-19 Awareness Online Quiz" organized by Department of Chemistry, S.B.N. Govt. P. G. College Barwani (M.P.) on 24th May 2020.
- 4) Participate in an Online Quiz on 'India Milkar Fight Karo Na' organized by Govt College AloteDisttRatlam (M.P.) on 27th May 2020.
- 5) Participate in an Online Quiz on 'Nutrition Quiz' organized by Govt Girls PG College Ujjain (M.P.) on 25th May 2020.
- 6) Participate in an online quiz on COVID-19 awareness entitled "Jagruk Bharat Vijayee Bharat" organized by J. N. Govt. Degree College, Barwaha (M.P.) on 23rd May 2020.
- 7) Participate in an online quiz on 'Online National Awareness Program On Covid-19' organized By Govt. College Manawar District Dhar (M.P.) on 20th May 2020.
- 8) Participate in an online quiz on 'Chemistry Quiz' organized by Govt Degree College AmarwaraDisttChhindwara (M.P.) on 2nd June 2020.
- 9) Participate in an online quiz in Chemistry held from 2- 6 June 2020 organized by Government Sanjay Gandhi Smriti PG College, Ganjbasoda (Vidisha), M.P.
- 10) Participate in an online quiz on "National Level Covid-19 Awareness Quiz" organized by Govt Degree College AmarwaraDisttChhindwara (M.P.) on 18th May 2020.
- 11) Participate in Online 'COVID-19 Health Awareness Quiz' organized by Government Kamla Nehru MahilaMahavidyalayaDamoh, India on 22nd June 2020.
- 12) Participate in Online 'Yoga Awareness Quiz' organized by Government Kamla Nehru MahilaMahavidyalayaDamoh, India on 21st June 2020.

C. Others: 6

- 1) Teacher Training Workshop on Research Based Pedagogical Tools organized by IISER, Pune at Pt. RavishankarShukla University, Raipur, Chhattisgarh; Oct. 6-9, 2017
- 2) National workshop on Spectroscopic and chromatographic techniques sponsored by *Department of Atomic Energy and M. P. Council of Science & Technology* at Adina Institute of Pharmaceutical Sciences, Sagar; Jul. 27-28, 2014.
- 3) One Day Workshop on Anti Plagirism tools 'Turnitin' and 'iThenticate' conducted by *Internal Quality Assurance Cellat Dr. HarisinghGour University*, Sagar, Apr, 10th, 2014.

- **4**) One DayWorkshop on 'Laboratory Health &Safty'organized by *Royal Society of Chemistry*, *Chemical Research Society of India and IIT Indore*, Apr, 4th, 2014.
- 5) One Day Workshop on Nuclear Magnetic Resonance Spectroscopy and its Applications in Physics, Chemistry and Biology sponsored by *JEOL India Pvt. Ltd.*organized by Dr. HarisinghGour University, Sagar, Feb. 16th, 2014.
- 6) Workshop on 'Modern Spectroscopic Techniques' organized by *Sophisticated Instrumentation Centre (SIC), IIT Indore*; Feb. 22-23, 2013.

PAPERS PRESENTED IN CONFERENCES: 12

- 1) Brajendra S Kusmariya; "Two mononuclear coordination compounds of Cu(II) and Zn(II) metal ions with N,O donor Schiff base ligand 2-chloro-6-{[(4-hydroxy-3-methoxyphenyl)methylidene]amino}-4 nitrophenol: Experimental and theoretical aspects"; 31st M. P. Young Scientist Congress-Chemical Sciences Section, Madhya Pradesh Science Festival organized by M. P. Council of Science & Technology, VigyanBhawan, Bhopal, Feb. 28-29, 2016. (Oral Presentation).
- 2) Brajendra S Kusmariya, A. P. Mishra; "Synthesis and Structural Investigation of Co(II) and Ni(II) complex with 2-chloro-6-{[(E)-(4-hydroxy-3-methoxyphenyl)methylidene]-amino}-4nitrophenol Schiff base ligand: Micro-texture, Thermal, Electrochemical and Theoretical Aspects"; 'Best Poster Award Program-Section of Chemical Sciences'; 103rd Indian Science Congress Association, Mysore University; Mysuru (Karnatak), Jan. 3-7, 2016. (Poster Presentation).
- 3) Brajendra S Kusmariya, A. P. Mishra; "Theoretical and Experimental studies of *keto-enol*tautomerism in 2-Hydroxy Schiff Base type compounds derived from 2-amino-4-chlorobenzenethiol with absorption and emission properties"; *National Symposium on Horizons of Light in Molecules, Materials and Daily Life organized* by Dr. HarisinghGour University, Sagar, Dec. 18-19, 2015. (*Poster Presentation*).
- 4) Brajendra S Kusmariya, A. P. Mishra; "Synthesis, spectral characterization and DFT calculation of some 3d-metal complexes with NSO donor Schiff base ligand"; 154th Birth Anniversary Celebration of Acharya P. C. Ray, Dr. HarisinghGour University, Sagar, Aug. 3rd, 2015. (Oral Presentation).
- 5) Brajendra S Kusmariya; "Synthesis and structural investigation of Co(II), Ni(II) and Cu(II) coordination complexes with a new 2,4-dichloro-6-{(E)-[(5-chloro-2-sulfanylphenyl)imino]methyl}phenol Schiff base ligand"; 30th M. P. Young Scientist Congress-Chemical Sciences Section, Madhya Pradesh Science Festival organized by M. P. Council of Science & Technology, VigyanBhawan, Bhopal, Feb. 28th Mar. 1st, 2015. (*Oral Presentation*).
- 6) Brajendra S Kusmariya, A. P. Mishra; "A Systematic investigation on Co(II), Ni(II) and Cu(II) complexes with bidentate 2-chloro-6-{[(E)-(4-hydroxy-3-methoxyphenyl)methylidene]amino}-4-nitrophenol Schiff base ligand"; 102nd Indian Science Congress Association-Chemical Sciences Section, Mumbai University; Mumbai, Jan. 3-7, 2015 (Oral Presentation).
- 7) Brajendra S Kusmariya, A. P. Mishra; "Synthesis and structural characterization of 3d coordination complexes with a new 2,4-dichloro-6-{(E)-[(5-chloro-2-sulfanylphenyl)imino]methyl}phenol Schiff base ligand"84th Annual Session of National Academy of Sciences, India at Jai Narayan Vyas University, Jodhpur, Rajasthan. Dec. 5-6, 2014(*Poster Presentation*).
- 8) Brajendra S Kusmariya, A. P. Mishra; "Synthesis, Structural and Antimicrobial activities of some Schiff Base Complexes of Cobalt(II) and Oxovanadium(II) ions"; National Science Day Celebration on the theme 'Fostering Scientific Temper' sponsored by M. P. Council of Science

- &Technology, Bhopal organized by Dr. HarisinghGour University, Sagar, Feb. 28th, 2014. (*Oral Presentation*)
- 9) Brajendra S Kusmariya, A. P. Mishra, M. Soni; "Synthesis, Structure and Antimicrobial Studies of N, O- Donor Schiff Base Metal Complexes"; National Research Seminar on Recent Trends in Chemical Sciences, sponsored by University Grant Commission CRO-Bhopal at Govt. P.G. College (Autonomous), Datia, Feb. 21-22, 2014. (Oral Presentation).
- **10**) **A.**P. Mishra, M. Soni, Brajendra S Kusmariya; "Synthesis, Structural and Antimicrobial activities of Some Cobalt- and Oxovanadium-Schiff Base Complexes"; 'Young Scientist Award Program-Section of Inorganic Chemistry' in 32nd Annual Conference, Indian Council of Chemist organized by Karnatka University, Dharwad (Karnatak), Nov. 28-30 Nov, 2013. (**Poster Presentation**).
- 11) A. P. Mishra, Brajendra S Kusmariya, N. Sharma, M. Soni,; "Synthesis, Structure, Characterization and Biological Studies of N, O- Donor Schiff Base Metal Complexes of Co (II), Ni (II) and Cu (II) ions"; Section of Inorganic Chemistry' in 32nd Annual Conference, Indian Council of Chemist organized by Karnatka University, Dharwad (Karnatak), Nov. 28-30 Nov, 2013. (Oral Presentation).
- 12) A. P. Mishra, Brajendra S Kusmariya, M. Soni, S. Shukla; "Synthesis, Structural, Antibacterial and Antidiabetic Studies of Some Oxovanadium- Schiff Base Complexes"; 'Section of Inorganic Chemistry' in 31st Annual Conference, Indian Council of Chemist organized by Saurastra University, Rajkot (Gujrat), Dec. 26-28, 2012. (Poster Presentation).

INDUSTRIAL TRAINING

❖ Two months industrial training in Quality Control Department at Alpa Laboratories Ltd. Indore; Apr. 22nd- Jun. 22nd, 2009.