



## **CURRICULUM VITAE (C.V.)**

Name : **Dr. MRUDULA PRASAD WADEKAR**

Present Designation : Assitant Professor (Chemistry)

Contact : m\_p\_wadekar@yahoo.co.in

**Educational Qualifications** : **M.Sc, Ph.D. Post.Doc (CSIR RA)**

Degree	Year	Subject	Grade	University
B.Sc	1992	Chemistry	First class with Distinction	Pune University
M.Sc	1994	Inorganic Chemistry	First class	Pune University
Ph.D	2000	Coordination and Analytical Chemistry		Pune University
<b>Post Doctoral Experience as Research Associate (CSIR)</b>	2001-2006	Chemistry and Ayurveda		National Chemical Laboratory (Pune)
Worked as project Associate in URDIP(CSIR) Pune.	Jan16 2007-April 2007	Project:- "Preparation of Data base on Metallopharmaceuticals" sponsored by DSIR, Gov of India.		

### **Teaching Experience: 12 Years**

UG/PG	Years	Subjects
<b>Under Graduate level</b>	13	FY,SY, TY B.Sc- Inorganic Chemistry
<b>Post Graduate level</b>	13	M.Sc-I, II- Inorganic and Analytical Chemistry

**Research Experience** : Ph.D -5yr + 20 years after Ph.D

<b>Area of Specialization:</b>	<b>Inorganic chemistry, Coordination Chemistry , Analytical Chemistry, Traditional Drugs such as Ayurvedic medicines.</b>
--------------------------------	---

Recognized Guide in Chemistry:	9 years
--------------------------------	---------

**i) Major and Minor Research Projects Completed: Three**

**a) Research Project for Post Doctorate:**

Type of project	Funding agency	Place of work	Duration
Worked as 'Research Associate', CSIR, Delhi for Post Doctoral Work.  Chemical characterization of metal oxide based medicines (Ayurvedic bhasmas) using modern analytical techniques.	CSIR ,Delhi	National Chemical Laboratory, Pune.	2001-2006

**b)Major Research Project:**

Type of project	Amount Sanctioned	Funding agency	Place of work	Duration
Major Research Project On Structural and Biological properties of Metal Complexes.	7,04300/-	UGC ,Delhi	Bharati Vidyapeeth Deemed University, Yashwantrao Mohite College, Pune-38	2011-2014.

**c)Minor Research Project:**

Type of project	Amount Sanctioned	Funding agency	Place of work	Duration
Synthesis, Characterization and Antimicrobial Studies of some Lanthanide Chelates.	40, 000	BVDU, Pune	Bharati Vidyapeeth Deemed University, Yashwantrao Mohite College, Pune-38	2013-2014.

**ii) Ph.D S successfully completed under the supervision and guidance: (04)**

Sr.No	Name of the Scholar	Topic	Date of Declaration
1	Pritamkumar V. Shinde	Synthesis, Characterization and Antimicrobial Studies of Isomeric Juglonates of Yttrium (III), Samarium (III) and Gadolinium (III).	07-09-2016

2.	Mrs Sonali V. Dhamal (Worked as Coguide for her)	Chemical and Biolomedical Investigations of some Ayurvedic Drugs of Marin and Mineral origin	25-07-2015
3.	Vishwambhar P Shinde	Synthesis Characterization and Biological studies of some Isomeric Lanthanide Juglonates	14-3-2018
4.	Abhaysingh S. Kadam	Structural and Biological investigations of some Isomeric Lanthanide Juglonates.	12-11-2019

**iii) Ph. D. Scholars registered for the supervision and guidance: (01)**

Sr.No	Name of the Scholar	Topic	Date of Registration
1	Surendra Suryawanshi	Metal Complexes	February 2019

**iv) Number of M.Sc Students Guided for Post Graduation Projects: (23)**

**Awards and Honors:**

**i) Best research paper award**

Title of Award	Name of Organization	Title of Research Paper	Name of the Conference	Date
Best research paper award for Poster	DIAT, Pune	Paper entitled ,Synthesis, Characterization and biological studies of Selenium based Ayurvedic drug Chapal bhasma	National Conference on chemistry of chalcogens(NC <sup>3</sup> -2017) organized by DIAT, Pune	12/13-01-2017
Best research paper award for Poster	Annasaheb Magar Mahavidyalaya, Hadapsar, Pune-411028.	Ring Isomerism in Isomeric Metal Juglonates and Its Effect on their structural and biological properties.	International conference on innovative trends in chemical, physical and biosciences 2016(ITCTB)	9 to 10-02-2016

**ii) Worked as BOS member of Science Faculty: 5yrs**

**PUBLICATIONS :**

**NUMBER OF RESERCH PAPERS PUBLISHED IN JOURNALS – 20**

**(a) Research papers published in National Journals : (8)**

1	Synthesis and characterization of Ho (III) chelates of some juglones.,Indian J. Chem.37(A)
---	--

	915,1998.,V.D. Kelkar, H.R. Gholap, R.R. Gokhale and M.B.Kulkarni(Wadekar).
2	Pharmacological properties of isomeric juglones on the isolated frog heart Indian J. Pharmacol. 31,222,1999.,S.H. Bhosale, S.L. Bodhankar, M.B. Kulkarni, B.A. Kulkarni
3	Antibacterial activity of 3 nitrolawsone oximes and 3 aminolawsone oxime and their bivalent metal chelates.,Indian J. Pharmaceutical Sc. 31: 222-224,1999; R.B. Mhaske, Mrudula Kulkarni, S.B. Joshi, V.G. Kshirsagar and S.D. Pradhan
4	Characterization of Raupya Bhasma by using modern analytical techniques.,Journal of Indian Medicine and Homeopathy Vol. 3 No4, 37, 2004.Mrudula Kulkarni, G.T. Panse, B.A. Kulkarni and Yogesh Bendale.
5	Comparative study of some commercial samples of Naga Bhasma. Ancient Science of Life Vol 23 No 4 , 48, 2004 , Mrudula Wadekar, Viswas Gogte, Prasad Khandagale and Asmita Prabhune.
6	Synthesis, Characterization and XRD Investigations of Cadmium (II) Phthiocol Monoximate.,Bharati Vidyapeeth Deemed University Research Journal, 2010.,Vol.8. No.2 PP.72-73, M.P.Wadekar, V. V. Dhapte, B. L. Khade, S. T. Takale, V.B. Jadhav and A. B. Pawar.
7	Public communication of Woman Scientists contribution to human welfare through Postal stamps, Environmental Observer, Vol 14, 2013, 150-151, Umesh Kulkarni, V.S. Mugade, N.B. Dahibhate, Mrudula Wadekar and Meera Deshmukh.
8.	Recovery of Inorganic Ayurvedic Biosalts from Medicinal plants.,Mrudula Wadekar, Meera Deshmukh, MARATHA, Peer Review Journal .Tilak Maharashtra Vidyapeeth, Pune, Sept 2017, pp15-19.
(b)	<b><i>Research Papers Published in International Journals ( 14)</i></b>
9	Synthesis spectral and XRD studies on isomeric chelates of Sr(II) and Ba(II) with phthiocol and plumbagin.,Asian Journal of Chemistry, 16, 1630-1636, 2004.,D.G. Kanse, Mrudula wadekar, S.S. Kadam, V.D. Kelkar, R.S. Uppadhye.
10	Preparation and Characterization of a copper based Indian traditional drug:Tamra bhasma.,Journal of Pharmaceutical and Biomedical Analysis, 39(2005) 951-955, M. P. Wadekar, C.V. Rode, Y.N. Bendale, K.R. Patil, A.A. Prabhune.
11	Study of effect of calcination cycles on the preparation of tin based traditional drug: Studies on its formation and characterization Journal of Pharmaceutical and Biomedical Analysis. 41, (2006) 1473-1478.,M.P. Wadekar, C.V. Rode, Y.N. Bendale, K.R. Patil, A. B. Gaikwad, A.A. Prabhune.
12	Spectral and theoretical investigation on 2- hydroxy- 1,4-naphthoquinone (Lawsone). A.B. Pawar , K.D. Jadhav, M.P. Wadekar, and R.G. Sarawadekar,Journal of Pharmacy Research, Vol 4, No. 6,1745-1747, (2011).,(Impact factor-2.33) ISSN-NO 0974-6943
13	Spectral,XRD and Antimicrobial studies on Isomeric chelates of Magnesium(II) and Calcium(II) with phthiocol and plubagin., Mrudula P. Wadekar, Monali Itkar, Pritam Shinde,B.L. Khade.,International Journal of Chemical and Analytical Sciences., November, 2012,3(11), 1606-1610. (Impact Factor-0.49) ISSN NO-: 0976-1209.
14	Chemical Investigations of some commercial samples of calcium based Ayurvedic Drug of

	Marine Origin:Kapardika-Bhasma, Sonali Dhamal, M.P.Wadekar , B.A.Kulkarni, V.V.Dhapte, IOSR Journal of Pharmacy and Biological Sciences (IOSR- JPBS) Volume 6, Issue 4 (May. –Jun. 2013) e-ISSN: 2278-3008, p-ISSN:2319-7676.
15	Effect of Ring Isomerism on Spectral and Antimicrobial Studies of Sm (III) Juglonates ,PritamShinde, Smita Nilakhe, Vishwambhar Shinde, B.A. Kulkarni, V.R. Sapre, M. P.Wadekar, IOSR Journal of Applied Chemistry (IOSR-JAC) e-ISSN: 22785736.Volume 7, Issue 3 Ver. I. (Apr. 2014), PP 33-40 .
16	Chemical Basis for the Traditional Test used for Loha Bhasma, Mrudula P. Wadekar,Shivaji Takale, Rupali Lad, Sonali Dhamal and B.A. Kulkarni, Asian Journal of Multidisciplinary Studies.Vol.2, Issue 7(July 2014), e- ISSN:2321-8819, p-ISSN:2348-7186, (Impact Factor: 0.923)
17	Structural, thermal and antifungal activity studies of isomeric Sm(III)Juglonates, Pritamkumar V. Shinde and Mrudula P. Wadekar, Der Pharma Chemica, 2015, 7(11):231-239.
18	Spectral and antibacterial studies of isomeric Tb(III) Juglonates ,V.P. Shinde, A.S. Kadam , P.V.Shinde and M.P. Wadekar, ,Der Pharmacia Lettre, 2016, 8 (17),7-13.
19	Spectral and Biological investigations of Nd(III) Juglonates ,Abhaysinh S. Kadam and Mrudula P. Wadekar., IOSR Journal Of Pharmacy (e)-ISSN: 2250-3013, (p)-ISSN: 2319- 4219 Volume 7, Issue 8 Version. 1 (August 2017), PP. 16-23.
20	IR, XRD and Antifungal Investigations of Nd(III) Juglonates., A.S. Kadam, Mrudula P. Wadekar., International Journal of Innovative Pharmaceutical Sciences and Research,5(12), 2017, 105-115, ISSN 2347-2154.
21	Spectral and antibacterial investigations of Er(III) Juglonates., V.P. Shinde, Mrudula Wadekar, International Journal of Chem Tech Research., Vol.10, No3, 740-748, 2017.
22	Supremacy of metal based drug Suvarna bhasma and comparative study of commercial samples of Suvarna bhasma, The Pharma Innovation Journal 7-11, 185-189, 2017/18, Meera Deshmukh and M.P.Wadekar.

***Papers published in Conference Proceedings: (Two)***

- “Solid state charge transfer nanochelates of Isomeric phthiocolates and plumbaginates”.,M.P. Wadekar, B.L.Khade, Monali ITkar, P.S. Khandagale, V.B. Jadhav, V.V. Dhapte, P.K. Khanna., Nanobio Materials Synthesis And Chatacterization (ISBN: 978-93-82563-36-5) published in international conference MAM-2012 at Coimbatore,India.
- Importance of Patents for the ranking of different countries according to their status in scientific research, S.T. Takale, Umesh Kulkarni, V.S. Mugade, M.P. Wadekar, N.B. Dahibhate. Proceedinds of National seminar on changing in library and information science,pp 7-11, Dec 2015 at Dr. Patangrao Kadam Mahavidyalaya, Sangli.

**The Workshops/ Conferences/ Seminars and Refresher/ FDP/Orientation courses attended/ participated:**

**Number of National and International Conference/Workshops/Seminars attended: 27**

- 1 Utility of Phthiocol as an Acid –Base Indicator. Mrudula Kulkarni ,R.B.Mhaske and B.A. Kulkarni., 33rd Annual Convention of Chemists ,Indian Chemical Society,Coimbatore (1996 ).
- 2 PH Cronic Reactions of some juglones of Biological importance, Mrudula Kulkarni ,R.B.Mhaske and B.A. Kulkarni.,IUPAC International Conference on Chemical and Biological -Thermodynamics ,Amritsar ( India ) p. 18 ( 1997 )
- 3 Fifth IUPAC International Symposium on Bio-organic Chemistry.ISBOC-5 (30 Jan -4 Feb 2000 ). National Chemical Laboratory.
- 4 XXXIII National Seminar On Crystallography (8-10 January 2004) at National Chemical Laboratory ,Pune.
- 5 Material Characterization and Testing ( WMCT 2004 ) workshop organized byC-MET ,Pune on 4<sup>th</sup> February 2004 .
- 6 Standardization and chemical interpretation of the traditional curd test for TAMRA Bhasma.Mrudula Wadekar, Yogesh Bendale, Pratibha Jadhav and Asmita Prabhune.National Symposium on Designing the Molecular world through chemistry .Varanasi B.H.U. , March 24-25,2006 (poster presentation )
- 7 Validity of Imparting Organic Component to metallic Bhasmas through the Process of Bhasmikanana.Mrudula Wadekar , A.B.Gaikawad ,B.A.Kulkarni, ,and Asmita Prabhune.2<sup>nd</sup> World Ayurveda Congress and Arogya 2006.
- 8 The paper entitled “Effect of isomerism and Chelation on the Antimicrobial Activity of the active constituents Phthiocol and Plumbagin” presented (as poster) in International Conference on “Current Trends in Medicinal Plant Research” held at Department of Botany, University of Pune, Pune (10-12 Jan. 2012).
9. The paper entitled “Effect of Chelation and isomerism on antimicrobial activity of copper(II) Chelates of isomeric Juglones.” Presented(as poster) in “Expanding Horizon in Chemical and Biological sciences” held at School of Chemical Sciences, Solapur University (21-24 Jan 2012).
- 10 The paper entitled “Chemical and Sructural Characterization of Iron Oxide Nanoparticles synthesized via Ayurvedic Techique” Presented(as poster) in 1<sup>st</sup> International Conference on Functional materials for Defence 2012, ICFMD-2012 held at Defence Institute of Advanced Technology (DIAT), Girinagar, Pune-25 (May 18-20, 2012).
11. The paper entitled “Preparation, Characterization and analytical applications of Thiosemicarbazone derivatives of Lawsone” presented( as poster) in National Conference on Chemistry of Chalcogens (NC<sup>3</sup>-2013) page No-37,Poster No-PP 4, held at Defence Institute of Advanced Technology (DIAT), Girinagar, Pune-25 (14- 15 January 2013).
12. Reinvestigation of Biosalts-Traditionally known as Ayurvedic Kshars-Isolated from Medicinal Plants from Modern Scientific Approach.,International conference on “Current trends in Medicinal Plant Research” held at Dept of Botany,Pune, University Pune. (10-12 Jan 2012) Page-66.
13. Application of the technique of *BHASMİKARNA* to synthesis nanometric carbon based Ayurvedic drug *HIRAKA BHASMA*, ) Expanding Horizons in Chemical and Biological Sciences Solapur held at School of Chemical Sciences, Solapur University, Solapur.(21-24 Jan 2012.) PP-121.

14. Comparative study of Calcium based Ayurvedic drug *KAPARDIKA BHASMA* and pure Calcium Carbonate., Expanding Horizons in Chemical and Biological Sciences Solapur held at School of Chemical Sciences, Solapur University, Solapur.(21-24 Jan 2012.) PP-151.
15. Role of Nano and Bio Sciences in the Reinvestigations of Metal Based Ayurvedic bhasmas as regenerative drugs. Second International Conference Nanotechnology at the biomedical interface held at Amrita Center for Nanoscience and Molecular Medicine, Kochi, kerala.(21-23 Feb 2012) abstract no-MDN-107.
16. Role of sulphur and sulphur compounds in the synthesis of Metal based Ayurvedic Drugs., National Conference on Chemistry of Chalcogens". Defence Institute of Advanced Technology Girinagar Pune (Jan 14-15 2013) Page no-38.
17. Synthesis, characterization and antimicrobial studies of isomeric Terbium(III) phthiocolates and plumbaginate. Abstract No:P-16, International conference on structural and inorganic NCL and IISER, Pune.c chemistry, December-4-5, 2014.
18. Ring Isomerism in Isomeric Metal Juglonates and Its Effect on their structural and biological properties. International conference on innovative trends in chemical, physical and biosciences 2016(ITCTB) dated 9 to 10-02-2016,Venue: Annasaheb Magar Mahavidyalaya, Hadapsar, Pune-411028. (Best Poster Award)
19. Establishment of a novel series of solid state charge transfer complexes based on nontransitional metal complexes, XXXV Annual conference, Indian Council of Chemists at Haribhai V Desai College, Pune in association with College of Engineering, Pune dated 22/24-12- 2016.
20. Synthesis, Characterization and biological studies of Selenium based Ayurvedic drug: Chapal bhasma, National Conference on chemistry of chalcogens(NC<sup>3</sup>-2017) at DIAT,Pune dated 12/13-01- 2017.(Best Research paper award).
21. pH chromic reactions of Isomeric Phthiocol and Plumbagin and their analytical applications, National Conference on chemistry of chalcogens(NC<sup>3</sup>-2017), at DIAT, Pune dated 12/13-01- 2017.(Best Research paper award).
22. Chemical characterization of Ayurvedic drug Shautika bhasma, National conference on Technical Revolution(NCTR-2017), S.P. Pune University, Pune and Anandrao Pawar College of Engineering and Research, Pune, Pune on 16/17 February 2017.
23. Characterization and Antimicrobial investigations of Lanthanum(III) Juglonates., National conference on Chemical Sciences: An interdisciplinary approach. Modern College of Arts, Science and Commerce, Pune-16Jan.18-20, 2018.(Poster Presentation).
24. Anticancer and antifungal activities of nanometric Nd(II)phthiocolateandplumbaginate.,International conference on Frontiers in Life sciences and Earth sciences., Prof.Ramkrishna More Arts, Commerce and Science college,Akurdi, Pune ,Place- Yashda, Baner Pune. Jan.2018-19.(Poster presentation).

25. Importance of *Ayurvedic Bhasmas* derived from metals/non-metals as regenerative medicines., International Conference Recent trends in bioengineering.MIT ADT University, Loni Kalbhor., Pune.16 Feb 2019.(Poster Presentation).
26. Spectral and Antimicrobial Study of O O Coordinated Pr(III) chelates of Hydroxy1,4naphthoquinones. National Conference on chemistry of chalcogens(NC<sup>3</sup>-2019), at DIAT, Pune dated 14/15-03- 2019.(Poster Presentation).
27. Biochemical and Pharmaceutical Study of some Ayurvedic Biosalts Isolated from medicinal plants., Science communication to Society through Postal Stamps, 107<sup>th</sup> Indian Science Congress, Science and Technology for Rural development, 3-7 Jan. 2020, Bangaluru, Karnataka.