



Dr. MINAL T. HARDE
M. Pharm., PhD. (Pharmaceutical Sciences)

Objectives: to excel in research for betterment of society and to provide quality teaching to students.

<p>Email:</p> <p>minaltharde@yahoo.com minalresearch@gmail.com</p>	<p>PRESENT STATUS AND EXPERIENCE</p>
<p>Contact. No: +91 9403171204</p> <p>Address For Communication:</p> <p>Dr. Minal T. Harde Shinde Vasti, Ravet, Pune – 412101 (MH)</p>	<ul style="list-style-type: none">• Approved Assistant Professor, PG Teacher and PhD guide in Pharmaceutical Chemistry (Savitribai Phule Pune University, Pune) at Modern College of Pharmacy, Nigdi, Pune- 441912. Maharashtra.• Currently guiding 02 PhD students.• Guided 28 M. Pharm students and presently guiding 02 students.• Supervised 22 B. Pharm students for minor research work.• Total teaching/research experience of 18 years.• Worked as Paper setter, Examiner and Moderator for B. Pharmacy and M. Pharmacy.
<p>Personal Details:</p> <p>Gender: Female Nationality: Indian Marital Status: Married DOB: 08/12/1981</p>	<p>PROFESSIONAL AFFILIATION AND APPROVALS</p> <ul style="list-style-type: none">• Life Member of APTI (MA-LM/840)• Registered Pharmacist- Maharashtra State Pharmacy Council. (Reg. No. 72115)• University Approval: Approved Assistant Professor in Pharmaceutical Chemistry, SPPU, Pune. (Letter No. NMU/ 18/648/2008 from 02/04/2007 to till date)

Languages Known:
English, Hindi, Marathi

Promotions till date:
Lecturer- Assistant Professor

- **P. G. Teacher Recognition:** SPPU, Pune recognized Post Graduate teacher in Pharmaceutical Chemistry (Letter No. BOD/Sci. & Tech./12/1103 from 06/06/2018 to till superannuation date)
- **PhD Guide** – SPPU, Pune recognized Ph.D guide (Letter No. BOD/Sci. & Tech./10/22 from 07/01/2022 to 07/12/2041).

EDUCATION QUALIFICATION

Ph. D. (2017) – Jawaharlal Nehru Technological University Hyderabad, Kukatpally, Hyderabad-500085. (T.S) India

Research Topic (PhD): Development, Validation and Stability indicating study of some marketed formulation by Spectrophotometric and Chromatographic method.

Master of Pharmacy (2005) – NDMVP Samaj's College of Pharmacy, Nasik. Maharashtra

Research Topic (M.Pharm) : “Development and evaluation of formulation containing *Rubia Cordifolia* Linn.”

Bachelor of Pharmacy (2003) – P. W. College of Pharmacy, Yavatmal, Amravati University, Maharashtra

Qualified GATE 2003 with 90.98 percentile score, conducted by IIT, Chennai.

NPTEL : Recipient of Gold Certificate

AWARD

1. VM edulife : Best Faculty of the Year
2. She has received **Gold Certificate** for securing 91% in course “Developing Soft Skills and Personality Development” and stood in top 2% on national level.

(course conducted jointly by IIT Kanpur and IIT Madras)

3. GATE PG Scholarship (AICTE, New Delhi, India), 2003

Skill Sets

Administrative and Academic:

SPPU Approved
Assistant Professor

SPPU Approved PG and PhD
Guide

Guiding 02 PhD Students

Guided 28 M. Pharm
Students

Supervised 22 B. Pharm
Students

Total 18 Years of
teaching/research
experience

Central Instrument Room
Incharge,

Placement Incharge,

Competitive Exam Incharge,

Extracurricular activity
Incharge

RESEARCH GRANTS

1. Fetched and completed research Grant (2009) by Board of College and University Development (BCUD), Pune University, Pune of **Rs. 300000/-** for the project entitled, "Establishment of Inherent Stability of Artesunate and Amodiaquine and Development of a Validated Stability-Indicating HPLC Assay Method". (BCUD/OSD/184).
2. Fetched and completed research Grant (2015) by Board of College and University Development (BCUD), Pune University, Pune of **Rs. 1,60,000 /-** for the project entitled, "Inherent Stability Indicating HPLC method for bulk and its Marketed Formulation". (OSD/BCUD/113/123).
3. Fetched and completed Research Grant (2015) by University Grant Commission (UGC), Delhi of **Rs. 1,80,000/-** for the project entitled, "Establishment of inherent stability of Artesunate and Amodiaquine and development of a validated stability indicating HPLC assay method". (47-867/13 (WRO)).
4. Fetched and completed Grant (2020) for conduction of Short term training programme (STTP) from AICTE delhi of **Rs.2,93,000/-** on topic "Innovations in Effective Teaching, Learning Pedagogy and Research Skill Development "

AREA OF INTREST

- Synthesis of nanomaterials and its use as drug delivery carrier
- Use of Nanoarchitronics in Pharmaceutical Sciences
- Synthesis of carbon quantam dots for biological applications
- QbD approached method development, validation and stability study

PORTFOLIO HANDLED

- NAAC Criteria Incharge I (2nd cycle ongoing)
- NBA Criteria Incharge I (2nd cycle completed)
- AQAR submission of NAAC every year
- Central Instrument laboratory In-charge
- Training and Placement In-charge
- Extracurricular activity In-charge
- Health checkup activity In-Charge
- Higher study In-charge
- Competitive Examination In-charge

BOOKS PUBLISHED

1. Communication skills on SPPU based syllabus for F. Y. B. Pharm, Success Publication.
2. Pharmaceutical Analysis- III on SPPU based syllabus for T. Y. B. Pharm, Success Publication.
3. Pharmaceutics-I on SPPU based syllabus of F. Y. B. Pharm, Success Publication.
4. Biochemistry on PCI based syllabus for F. Y. B. Pharm, Technical Publication.
5. Quality Assurance Techniques on PCI based syllabus for T. Y. B. Pharm, Thakur publication

PATENTS

1. Synthesis of Highly Luminescent Carbon Quantum Dots. (Indian Patent. Application no. 202221055804, Date of Application: 29/09/2022. Date of Publication: 23/12/2022)
2. Graphene Oxide Loaded Nanocarrier for Targeted Delivery of Anti-Cancer Drug. (Indian Patent. Application no. 202221072222, Date of Application: 14/12/2022. Date of Publication: 23/12/2022)

Instrument handled:

FTIR,
HPLC,
UV,
Spectrofluorimeter,
Karl- Fischer Apparatus,
pH Meter,
Conductometer,
Polarimeter, Flame
Photometer
Microwave Synthesizer (CEM
corporation, USA),
Particle Size Analyser
(Particulate System,
Micromeritics, USA),
Rotary Vacuum Evaporator,

3. Facile Synthesis of Ordered Mesoporous γ Alumina with Tunable Structural Properties. (Indian Patent. Application no. 202221072921, Date of Application: 16/12/2022. Date of Publication: 30/12/2022)
 4. Sol-Gel Strategy for Synthesis of Mesoporous alumina and passive loading approach for direct delivery of 5-Fluorouracil. (Indian Patent. Application no. 202221072221, Date of Application: 14/12/2022. Date of Publication: 27/01/2023)
- 10 Patents are under filing process.

PUBLICATIONS (NATIONAL/INTERNATIONAL)

1. Padmaja Kore, Ashwini Navale, Deepti Bandawane, Anuradha More, **Minal Harde**, Pooja Chavan, Trupti Bankar, Shrishti Jha. (2023). Prophylactic effects of Hydroethanolic extract of Brassica Cretica Leaves on Myocardial Injury in Rats. *European Chemical Bulletin*.(Scopus).
[https://doi: 10.31838/ecb/2023.12.sa1.2192023.21/04/2023](https://doi.org/10.31838/ecb/2023.12.sa1.2192023.21/04/2023)
2. Ujwala Wasnik, Kedar Jagtap, Bhimashankar Devkar, Sameer Lakade, Ankita Patil, Padmaja Kore, **Minal Harde**. Development and Validation of RP-HPLC Methods for Simultaneous Determination of Moxifloxacin HCl and Ketorolac Tromethamine in Bulk and Marketed Formulation. *European Chemical Bulletin*.(Scopus).
[https://doi: 10.31838/ecb/2023.12.sa1.2162023.21/04/2023](https://doi.org/10.31838/ecb/2023.12.sa1.2162023.21/04/2023)
3. Padmaja Kore, Ashwini Navale, Deepti Bandawane, Smeeta Sadar, Pooja Chavan, Anuradha More, **Minal Harde**, Siddhant Gaikwad. Acute Oral Toxicity Evaluation of Hydroethanolic Extract of Brassica Cretica in Wistar Albino Rats as per OECD 425. *European Chemical Bulletin*.(Scopus).
[https://doi: 10.31838/ecb/2023.12.sa1.2202023.21/04/2023](https://doi.org/10.31838/ecb/2023.12.sa1.2202023.21/04/2023)

4. Padmaja Kore, Mansi Sewatkar, Vaishnavi Inde, Abhishek Nemmaniwar , Anuradha More, **Minal Harde**, Sakshi Khandagale, Tanvi Mande, Shivani Harne, Neha Dhumal, Pooja Chavan. Evaluation of Wound Healing and Anti-Inflammatory Potential of Daucus Carota Ethanolic Extract in Laboratory Animals. *European chemical bulletin*. (scopus). [https://doi: 10.31838/ecb/2023.12.sa1.2212023.21/04/2023](https://doi.org/10.31838/ecb/2023.12.sa1.2212023.21/04/2023)
5. Ujjwala Wasnik, Rushikesh Nikalje, Khandoba Birajdar, Sameer Lakade , Sidheshwar Jadhav, Padmaja Kore, **Minal Harde**. Development and Validation of TLC-Densitometric Method for Simultaneous Estimation of Moxifloxacin HCl and Ketorolac Tromethamine in Bulk Drug and Marketed Formulation. *European Chemical Bulletin* (Scopus). [https://doi: 10.31838/ecb/2023.12.sa1.2222023.21/04/2023](https://doi.org/10.31838/ecb/2023.12.sa1.2222023.21/04/2023)
6. Kamlesh Palandurkar, Richie Bhandre, Sai H. S. Boddu, **Minal Harde**, Sameer Lakade, Ujjwala Kandekar and Prashant Waghmare.(2023). Quality risk assessment and DoE – Practiced validated stability-indicating chromatographic method for quantification of Rivaroxaban in bulk and tablet dosage form. *Acta Chromatographica*. (Impact Factor : 2.01). <https://doi.org/10.1556/1326.2021.00978>
7. Deshmukh, P. K., Lakade, S. H., Jaiswal, U. R., **Harde, M. T.**, More, M. P. (2021). One step synthesis approach of mesoporous silica packed with graphene oxide nanosheet Characterisation and drug release aspects. *Materials Technology*. (Impact Factor : 3.8) <https://doi.org/10.1080/10667857.2021.1972689>
8. Thakare, V. N., Lakade, S. H., Mahajan, M. P., Kulkarni, Y. P., Dhakane, V. D., **Harde, M. T.**, & Patel, B. M. (2021). Protocatechuic acid attenuates chronic unpredictable mild stress induced behavioral and biochemical alterations in mice. *European Journal of Pharmacology*, 898(May). (Impact Factor : 4.4) <https://doi.org/10.1016/j.ejphar.2021.173992>

9. **Harde, M. T.**, & Lakade, S. H. (2021). A stability-indicating HPLC method for estimation of doxylamine succinate in tablets and characterization of its major alkaline stress degradation product. *Future Journal of Pharmaceutical Sciences*, 7(1). *Future Journal of Pharmaceutical Sciences* (Indexed in Scopus) <https://doi.org/10.1186/s43094-021-00276-6>
10. **Harde, M. T.**, Lakade, S. H., Rokade, S. K., Rathod, S. G., Dale, P. A., Kendre, A., & Sirvi, I. H. (2021). *Validated Inherent Stability Indicating Reversed Phase HPLC- DAD Method for Simultaneous Determination of Tolperisone Hydrochloride And Diclofenac Sodium in Marketed Formulation*. *Bulletin of Environment, Pharmacology and Life Sciences* 10(April), 100–107. (Indexed in Web of science)
11. **Minal Harde**, Sameer lakade, Monia Patil, Sneha Gupta . (2021). *Study and Optimization of Effect of Critical Formulation Components in The Manufacture of Multiparticulate Oral*. 10(April), 116–123. *Bulletin of Environment, Pharmacology and Life Sciences* (Indexed in Web of science)
12. **Harde, M. T.**, Lakade, S. H., Kakade, N. K., Chaudhary, L. R., Gosavi, S. V, Patekar, R. R., & Choudhary, H. B. (2021). *ICH Guideline in Practice : Validated Inherent Stability-Indicating HPLC-Dad Method for Simultaneous Determination of Eperisone Hydrochloride and Diclofenac Sodium in Marketed Formulation*. 10(March), 108–115. *Bulletin of Environment, Pharmacology and Life Sciences* (Indexed in Web of science)
13. Pande, V., Gore, S., Pote, A., **Harde, M. T.**, Lakade, S. H., & Raut, D. (2021). *Design and Development of Lornoxicam Impregnated Dry Powder Based Liquid Crystals*. 10(April), 124–130. *Bulletin of Environment, Pharmacology and Life Sciences* (Indexed in Web of science)

science)

14. Vishal, P. V, Lakade, S. H., Niteen, G. D., Ajinkya, P. K., **Harde, M. T.**, & Jalindar, R. (2020). *Design and Development of Novel Controlled-Release Azilsartan Medoxomil Loaded Provesicular Powder*. 9(October), 111–120. Bulletin of Environment, Pharmacology and Life Sciences (Indexed in Web of science)
15. **Harde, M. T.**, Lakade, S. H., Mekhe, A. R., Shinde, S. R., More, P. D., & Shirude, S. S. (2020). *Validated inherent stability-indicating HPLC-DAD method for simultaneous determination of Pamabrom and Paracetamol in marketed formulation*. Advances in Bioresearch. 11(September), 72–78. Advances in Bioresearch (Indexed in Web of science) <https://doi.org/10.15515/abr.0976-4585.11.5.7278>
16. **Minal Harde**, Sameer Lakade, Aniket Mekhe, Ajay Joshi, Sneha Shinde (2020). *Surface Engineered New Approach for Mesoporous Alumina and Nanoparticles A Review*. 9(July), 29–34. (Indexed in Web of science)
17. **Harde, M.**, Lakade, S., Gite, V., Chopade, V., & Khomne, A. (2019). Ultraviolet-Spectrophotometric Method for Simultaneous Estimation of Dapagliflozin Propanediol and Metformin Hydrochloride. *International Research Journal Of Pharmacy*, 10(4), 90–94. (Indexed in Web of science) <https://doi.org/10.7897/2230-8407.1004130>
18. Lakade, S. H., **Harde, M. T.**, Chattichalwadi, V., & Uttekar, P. S. (2019). Facile synthesis of mesoporous alumina using hexadecyltrimethylammonium bromide HTAB as template Simplified solgel approach. *IET Nanobiotechnology*, 13(8), 834–841. (Impact Factor 2.1) <https://doi.org/10.1049/iet-nbt.2018.5343>

19. Lakade, S. H., **Harde, M. T.**, & Deshmukh, P. K. (2020). Synthesis of mesoporous alumina an impact of surface chemistry on release behavior. *Particulate Science and Technology*, 38(8), 1035–1041. (Impact Factor 1.8) <https://doi.org/10.1080/02726351.2019.1666947>
20. Uttekar, P. S., Lakade, S. H., Beldar, V. K., & **Harde, M. T.** (2019). Facile synthesis of multi-walled carbon nanotube via folic acid grafted nanoparticle for precise delivery of doxorubicin. *IET Nanobiotechnology*, 13(7), 688–696. (Impact Factor 2.1) <https://doi.org/10.1049/iet-nbt.2018.5421>
21. **Harde, M. T.**, Wankhede, S. B., & Chaudhari, P. D. (2016). A validated inherent stability indicating HPTLC method for estimation of cyclobenzaprine hydrochloride in tablets and use of MS–QTOF in characterization of its alkaline stress degradation product. *Bulletin of Faculty of Pharmacy, Cairo University*, 54(2), 145–156. (Indexed in Scopus) <https://doi.org/10.1016/j.bfopcu.2016.04.002>
22. **Harde, M. T.**, Wankhede, S. B., Chaudhari, P. D., (2015) A validated inherent stability–indicating RP-HPLC-DAD method for estimation of febuxostat in the bulk drug and pharmaceutical dosage form. *Am. J. PharmTech Res.* 5(4), 757-67 (2015). ISSN No- 2249-3387
23. **Harde, M. T.**, Wankhede, S. B., Chaudhari, P. D., (2015) D.,Development of validated UV spectrophotometric method for simultaneous estimation of ibuprofen, paracetamol and caffeine in the bulk drug and marketed formulation. *World J Pharm Res.* 4(9), 1428-36 (2015). ISSN No- 2277– 7105

24. **Harde, M. T.**, Wankhede, S. B., Chaudhari, P. D., (2015) A validated inherent stability-indicating hplc method for estimation of paliperidone in the bulk drug and pharmaceutical dosage form. 4(8), 1937-48 (2015). ISSN No- 2278 – 4357
25. Madke, C. R., Jain, H. M., **Harde, M. T.**, Chaudhari, P. D., Development and validation of simple UV spectrophotometric method for the estimation of cyclobenzaprine both in bulk & in marketed dosage formulation. 3(8), 1949-54 (2014). ISSN No- 2278 – 4357
26. **Harde, M. T.**, Wankhede, S. B., Chaudhari, P. D., Development and validation of RP-HPLC method for simultaneous estimation of paracetamol and pamabrom in bulk drug and marketed formulation 3(4), 1-8 (2014). ISSN No- 2278-5191
27. **Harde, M. T.**, Wankhede, S. B., Chaudhari, P. D., Development and validation of RP-HPLC method for estimation of pamabrom in bulk and marketed formulation. J. Pharm. Res. 8(10), 1515-19(2014). ISSN No- 0974-6943
28. **Harde, M. T.**, Punde, A. A., Chaudhari, P. D., Simultaneous estimation of tolperisone hydrochloride and diclofenac sodium in bulk and tablet dosage form by RP-HPLC method. J. Pharm. Res. 2(7), 1-5(2013) ISSN No.- 2319-5622
29. **Harde, M. T.**, Punde, A. A., Chaudhari, P. D., Development and validation of UV-visible spectrophotometric methods for simultaneous estimation of tolperisone hydrochloride and diclofenac sodium in bulk and tablet dosage form by absorbance ratio method. Int. J. Univ. Pharm. Life Sci. 3(6), 166 -75(2013). ISSN No.- 2249-6793

30. **Harde, M. T.**, Zinjad, P. R., Chaudhari, P. D., Development and validation of RP-HPLC method for estimation of eperisone hydrochloride bulk and tablet dosage form. *Inventi Rapid: Pharm. Anal Qual. Ass.* 3 (3), 1-4(2013). ISSN No.- 0976-3813
31. **Harde, M. T.**, Zinjad, P. R., Chaudhari, P. D., Development and validation of uv-visible spectrophotometric methods for simultaneous estimation of eperisone hydrochloride and diclofenac sodium in bulk and capsule dosage form. *Int. J. Univ. Pharm. Life Sciences* 3(3), 21-29(2013). ISSN No.- 2249-6793
32. **Harde, M. T.**, Chinchole, R. K., Chaudhari, P. D., Development and validation of HPTLC methods for estimation pamabrom in bulk and in synthetic mixture. *Int. J. Univ. Pharm. Bio Sci.* 2(2), 228-34 (2013). ISSN No.- 2319-8141
33. **Harde, M. T.**, Chinchole, R. K., Chaudhari, P. D., Development and validation of a stability indicating assay method of pamabrom by using different stress degradation conditions. *Inventi Rapid: Pharm. Anal Qual. Ass.* 2, 1-6 (2013). ISSN No.- 0976-3813
34. **Harde, M.**, Dharam, D., Jadhav, S, Chaudhari, P., Balap, A., Development and Validation of HPTLC Method for the Simultaneous Estimation of Thiocolchicoside and Dexketoprofen in Bulk and Tablet Dosage Form. *J. Pharm. Res.* 5(8), 4143-46 (2012) ISSN No.-0974-6943
35. Lakade, S. H., BHalekar, M.R., **Harde, M. T.**, Developed and validated reverse phase HPLC method for the determination of febuxostat in bulk and formulations. *Int. J. Pharm. Pharm. Sci.* 4(4), 46-49(2012) ISSN No.-

36. **Harde, M. T.**, Jadhav, S. B., Dharam, D. L., Chaudhari, P. D., Development and validation of UV-visible spectrophotometric methods for simultaneous estimation of thiocolchicoside and dexketoprofen in bulk and tablet dosage form. Int. J. Pharm. Sci. Drug Res. 4(2), 160-163(2012). ISSN No.- 0975-248X
37. **Harde, M. T.**, Dharam, D. L., Jadhav, S. B., Balap, A. R., Development and validation of RP-HPLC method for simultaneous estimation of thiocolchicoside and dexketoprofen in bulk and tablet dosage form. Int. J. PharmTech Res. 4(4), 1797-02 (2012). ISSN : 0974-4304
38. Pavan P. Chintawar, Poonam N. Pawar and **Minal T. Harde**, Suhas V. Joshi and Praveen D. Chaudhari Spectrophotometric Methods for Simultaneous Estimation of Moxifloxacin HCl and Ketorolac Tromethamine, Asian journal of research in chemistry 3(3), 2010, 767- 773.
39. **Minal T Harde**, Avinash S Khairnar, Ameya S Kasture and Sanjay B Kasture, Evaluation of antipsychotic and anti-diarrhoeal activities of ethanolic extract of roots of Rubia cordifolia Linn Oriental Pharmacy and Experimental Medicine 2008 8(1), 73-80. (Impact factor 1)
40. Pawar Poonam N, Chintawar Pavan P, **Harde Minal**, Ingale Pramod L, Chaudhari Praveen D, Simultaneous spectrophotometric estimation of Gatifloxacin and ketorolac tromethamine in bulk drug and in ophthalmic dosage form. Journal of pharmaceutical research, 10(1), 2011 : 21-24.

PARTICIPATION IN NATIONAL & INTERNATIONAL CONFERENCES AND TRAININGS

1. Abstract published in National conference 8th MET RxPLORE National level research conference 2023 held at Bhujbal knowledge city on 3rd march 2023 on topic entitled “Design of Surface Engineered Inorganic Mesoporous Nanoparticles: Sustained Release and Anticancer Activity Assessment of 5-Flurouracil”.
2. Abstract published in National conference 8th MET RxPLORE National level research conference 2023 held at Bhujbal knowledge city on 3rd march 2023 on topic entitled “Design of graphene oxide Nanoparticles: Sustained Release and Anticancer Activity Assessment of gemcitabine”.
3. Abstract published in National conference 8th MET RxPLORE National level research conference 2023 held at Bhujbal knowledge city on 3rd march 2023 on topic entitled “Design and synthesis of fluorescent carbon quantum dots as a ON-OFF nanosensor”.
4. Abstract published in International conference “Multidisciplinary Healthcare Research: Challenges, Opportunities and Newer Directions” organized by Modern College of Pharmacy on 4th and 5th January 2019. Topic entitled “Development and Validation of HPTLC method for estimation of Rosmarinic acid in plant extract and in polyherbal formulation.”
5. Abstract published in International conference “Multidisciplinary Healthcare Research: Challenges, Opportunities and Newer Directions” organized by Modern College of Pharmacy on 4th and 5th January 2019. Topic entitled “LC-MS/MS Characterization of Alkaline stress degradation product: Development and Validation of Stability Indicating Methods of Rivaroxaben by HPTLC.”
6. Abstract published in National conference “Drug Discovery-Past, Present & Future” organized by Maharashtra Academy of Engineering & Educational research on 10th and 11th October 2013 topic entitled “Hybrid Materials, Nanomaterials, Biomolecular

References:

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E mail.
anilpethe@gmail.com

Materials: Recent Advances in Analytical Chemistry”
(Received Second prize in poster presentation).

7. Abstract published in International conference “Promotion and Development of Botanicals with International Coordination: Exploring quality, safety, efficacy and regulations” organized by School of natural products, Kolkata on 25th and 26th February, 2005 topic entitled “Anti-psychotic activity of Rubia Cordifolia Linn.”

Declaration: The information given above is correct as per my knowledge and belief.

Date: 29/05/2023

Dr. Minal T Harde