

CURRICULUM VITAE

Publications: 06

H-Index: 06 Citations: 82

<https://orcid.org/0000-0003-4404-8041>

PERSONAL DETAILS:

Name: Dr. Rajratna Prakash Tayade

Date of Birth: 02/05/1985

Nationality: Indian

Marital Status: Married

CORRESPONDENCE ADDRESS:

RPF Railway quarter RB-II,
34/02 Near Ganesh Mandir
Mulund East,
Mumbai- Pin code: - **400081**
E-mail ID: rajtayade158@gmail.com,
Mob No: **9860158943, 9029429485.**

PERMANENT ADDRESS

Ambekar Nagar, Budruk
Maskawad.
Tal. Raver. Dist. Jalgaon
Pin code: - **425502.**

EDUCATIONAL QUALIFICATION :

1. **Ph.D. (Chemistry):** Department of Speciality Chemicals Technology, Institute of Chemical Technology (ICT), Matunga, Mumbai, India, 2017.

“Thesis title “Synthesis and DFT-based photophysical Studies in Thiazolyl, Benzimidazole and Coumarin Containing Fluorescent Molecules”

Research Supervisor: - Professor- Head N. Sekar. Speciality Chemicals Technology, ICT, Mumbai.

Sr. No.	Academic/ Professional Qualification	Specialization	Name of Institute	Board/ University	Month & Year of passing	Division Grade/ % of Marks
1	(Ph.D.) Doctor of Philosophy	Chemistry	Institute of Chemical Technology Matunga, Mumbai	ICT, Mumbai	8 th Feb 2017	Awarded
2	(M.Sc.) Master of Science	Organic Chemistry	Shri. Shivaji Science College, Amravati	Amravati University	July 2009	First Class 62.50%
3	(B.Sc.) Bachelor of Science	Chemistry	Shri. Shivaji Science College, Amravati	Amravati University	May 2006	Second Class 57.77%

RESEARCH AREAS OF INTEREST:

1. Design and synthesis of novel donor acceptor functional molecule for application of OLEDs, Bio-imaging.
2. Design and synthesis of novel receptor for Anion Sensing.
3. Computational chemistry (DFT, TD-DFT calculation).
4. Design and synthesis of Novel Fluorescent probe
5. Study of aggregation Induced Emission Dye.

ACADEMIC EXPERIENCE:

Sr. No.	Post held	Month & Year	Name of Institution/ Employer
1	Assistant Professor	19.01.2017 to 19.07.2017	A.C. Patil College of Engineering Kharghar, Navi Mumbai, India.
2	Assistant Professor	01.01.2019 to 28.10.2022	Terna Engineering College, Nerul, Navi Mumbai, India.
3	Assistant Professor	03.11.2022 to Till date	Amity School of Applied Sciences, Amity University. Mumbai.

- Conducted organic chemistry lectures of B. Tech. at Institute of Chemical Technology, Mumbai **2011**.
- Guest lecture delivered on 25th Feb 2017 on the topic “*Research Scope in Chemical Science*” organized by Dept. of Chemistry For Undergraduate student in Arts & Science College, Pulgaon Wardha.

ACADEMIC RESPOSIBILITIES HELD:

- Internal Assessment Test (IAT) Co-ordinator.
- Class Advisor First Year Engineering (FE)
- Admission Committee.
- As Mentor for Student's

AWARD AND FELLOWSHIP:

- Awarded a Junior Research Fellowship (UGC/SAP) by University Grant Commission, Delhi, India in **2010**.
- Awarded a Senior Research Fellowship (UGC/SAP) by University Grant Commission, Delhi, India in **2013**.

- Selected and participate in “**SIXTH SCIENCE CONCLAVE: An Interaction with Nobel Laureates**” held at IIT-Allahabad (U.P) on December 08 – 13, **2014**.
- Received a **Consolation Prize** in Inter University level project on Wild Life
- Conservation organized by Amravati University, Amravati in **2005**. (Regional chapter Nagpur).

SCIENTIFIC AND TECHNICAL EXPERTIES:

- Worked for new synthetic routes from mg to gm scale synthesis of various organic molecules at Low, high temperature and inert atmosphere.
- Experience in handling air and moisture sensitive compounds.
- **TYPES OF REACTION CARRIED OUT:**
Bromination, Nitration, Protection and Deprotection reaction, Friedel-Crafts Acylation, Diazotization, Vilsmeier-Haack Formylation, Knoevenagel Condensation Reaction. Hantzsch thiazole synthesis.
- Highly experienced in techniques such as column chromatography, flash chromatography, Distillation, Different drying and filtration techniques. TLC and preparatory TLC for reaction monitoring and purification of compounds.
- Analytical experience in operating instruments (UV-Visible spectrophotometer, Spectrofluorometer. FT-IR spectrophotometer (**Jasco**), Rotary evaporator (**Heidolph**).
- Interpretation of spectral data [IR, ¹H NMR, ¹³C NMR, MS, LCMS/HRMS, IR,UV,] of organic molecules.
- **COMPUTER PROFICIENCY:**
Software's and programs: Microsoft Office-Word, Excel, Power Point, PDF editor Internet, Projector Presentation, Team-Viewer.
- **COMPUTATIONAL CHEMISTRY:**
Computational optimization of molecular structure (Gaussian 09)
Computational/Chemistry Software's: Gaussian 09W & 03W, Gauss View 5.0, Chem Bio-office 12, Chem Draw Ultra, ChemsKetch, MatsRenovo.
- Skilled in conducting literature search through chemistry related software and good in theoretical calculations.
- Good at writing research reports, patent application documents and manuscripts.

CONFERENCES /PRESENTATIONS/ WORKSHOP:

1. **Convention on Colorants – 2011**
Organizers: *Dyes Manufacturing Association of India (DMAI) and Department of Dyestuff Technology, Institute of Chemical Technology (ICT), Mumbai.* Venue: The Club, Andheri (West), Mumbai, January 19-20, 2011.
2. **National Symposium on Functional Application of Colorants- 2011, 2012, 2013, 2014** Organizers: *Department of Dyestuff Technology, Institute of Chemical Technology (ICT), Mumbai.* Venue: *K.V. Auditorium, ICT Campus Matunga (East) Mumbai* on October 14-15, 2011.
3. Presented a poster at “*National Symposium on Functional Applications of Colorants*” at Institute of Chemical Technology, ICT, Matunga Mumbai, **on 2-4 April 2014.**
Title: “*Synthesis of novel styryl derivatives from 4-chloro-2-(morpholin-4-yl)-1, 3-thiazole-5-carbaldehyde, Study of their photophysical properties and TD-DFT computations*”
4. Presented a poster at “*Convention on Colorants*” at The Club Hotel, Andheri, Mumbai, on 2 April **2014.** The Club, Andheri (West), Mumbai, **March 4-5, 2015.**
Title: “*Synthesis of novel styryl derivatives from 4-chloro-2-(morpholin-4-yl)-1, 3-thiazole-5-carbaldehyde, Study of their photophysical properties and TD-DFT computations*”
5. **Convention on Colorants – 2014**
Organizers: *Dyes Manufacturing Association of India (DMAI) and Department of Dyestuff Technology, Institute of Chemical Technology (ICT), Mumbai.* Venue: The Club, Andheri (West), Mumbai, *January 19-20, 2011.*
6. Attended a workshop on “*Laboratory Safety 2011*” organized at Institute of Chemical Technology, Mumbai.
7. Attended virtual workshop on “*MASTERING THE PUBLISHING PROCESS*” organized by the American Chemical Society (ACS) and the Department of Science & Technology (DST), Govt. of India in association with Vigyan Prasar (an autonomous organization under DST). **July 28, 2020.**
8. Participated in “*Virtual Conference on “Materials for Energy Harvesting and Catalysis*” organized by TIFR and IISER Kolkata association with the American Chemical Society (ACS) **Dated on 1st May-3rd May 2020.**
9. Participated and completed *AICTE Training and Learning (ATAL) Academic online One week FDP “PHOTONICS”* at Thakur College of Engineering and Technology Mumbai. *from 23-11-2021 to 27-11-2021.*

10. Participated and completed *AICTE Training and Learning (ATAL) Academic online One week FDP “NOVEL MATERIALS”* at Pillai College of Engineering Navi Mumbai. From **05-10-2021 to 09-10-2021**.
11. Participated in One week value added workshop: “*Nano Era Nanotechnology for Global Sustainability*” organized by Amity Institute of Nanotechnology, Amity University Uttar Pradesh, Noida, Mumbai from **June 01 to 11 2021**.
12. Participated in one week online Short Term Training Program (STTP) on “*Emerging trend in Chemical Science and its Application in Environment and Engineering*” organized by Department of Applied Chemistry, Jabalpur Engineering College, Jabalpur sponsored by TEQP-III from **26-9-2021 to 30-9-2021**.

NAME AND ADDRESSES OF REFEREE:

1) **Prof. Dr. N. Sekar (Research Supervisor)**

Department of Speciality Chemicals
Technology, Institute of Chemical
Technology, Matunga, Mumbai, 400019,
Email-nethi.sekar@gmail.com,
Contact No. **9867958452**

2) **Prof. Dr. Rajesh Kamble**

Department of Chemistry,
University of Mumbai,
Vidhyanagari, Santacruz (East),
Mumbai-400098, India
Email: kamblerm@chem.mu.ac.in ;
Contact No. **+91-022-26523568/ 9869146496**.

LIST OF PUBLICATION:

Sr. No.	List of Authors	Title of Paper	Volume & Page No.	doi (of paper)	Impact factor
1.	Sekar, N.; Umape, P.G.; Padalkar, V.S.; Tayade, R.P.; Ramasami, P.	Synthesis of novel styryl derivatives from 4-chloro-2-(morpholin-4-yl)-1, 3-thiazole-5-carbaldehyde, Study of their photophysical properties and TD-DFT computations.	<i>Journal of Luminescence</i> (2014) 150, Pages no. 8-18.	https://doi.org/10.1016/j.jlumin.2014.01.060	4.171
2.	Tayade, R.P.; Sekar, N.	Benzimidazole-Thiazole based NLOphoric Styryl Dyes with Solid State Emission – Synthesis, Photophysical, Hyperpolarizability and TD-DFT Studies.	<i>Dyes and Pigments</i> . (2016), 128, Pages no.111–123.	https://doi.org/10.1016/j.dyepig.2016.01.012	4.66
3.	Tayade, R.P.; Sekar, N.	Novel 2H-pyran-3-carbonitrile dyes – Synthesis,	<i>Journal of Luminescence</i> .	https://doi.org/10.1016/j.jlumin.2016.01.060	4.171

		<i>Solvatochromism Study, and DFT, TD-DFT Computations</i>	(2016) (2016) 176, Pages no. 298–308.	3.017	
4.	Tayade, R.P.; <i>Sekar, N</i>	<i>Novel Thiazole Based Styryl dyes with Benzimidazole Unit - Synthesis, Photophysical and TD-DFT Studies.</i>	Journal of Fluorescence (2017), 27, 1, Pages no.167-180.	https://doi.org/10.1007/s10895-016-1943-8	2.217
5.	Tayade, R.P.; <i>Sekar, N</i>	<i>Synthesis of novel thiazole based carbaldehyde as potential sensor for fluoride anion and their spectroscopic properties.</i>	Journal of Fluorescence (2017), 27, 3, Pages no. 1117-1128.	https://doi.org/10.1007/s10895-017-2047-9	2.217
6.	<i>Thorat K.G;</i> Tayade, R.P.; <i>Sekar, N</i>	<i>Acridine-1, 8-dioneA new class of thermally stable NLOphores: Photophysical, (hyper) polarizability and TD-DFT studies.</i>	Optical Materials (2016) 62, Pages no.306-319.	https://doi.org/10.1016/j.optmat.2016.10.020	3.08

I here declared that the above information is true to my knowledge.

Place: - Mumbai

Date: -

(Dr. Rajratna P. Tayade)