

Dr. Pinkeshkumar G Sutariya



Designation: Assistant Professor

Specialization: Organic Chemistry

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Date of Birth: 23/06/1988

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Karamsad Railway Station Road,
Karamsad: 388325

Educational Qualifications

- M.Sc. (Organic Chemistry), Department of Chemistry, Gujarat University, 2010.
- Ph.D. (Chemistry), Department of Chemistry, Gujarat University, 2013.
- GSET (Chemical Science), M.S. University, 2019.

Academic Experience

- Lecturer in INDUS University from 01/04/2013 to 10/08/2014.
- Assistant Professor at Bhavan's Shree I. L. Pandya Arts- Science and Smt. J. M. Shah Commerce College, Dakor, Sadar Patel University from 11/08/2014 to 03/01/2022

- Assistant Professor at Department of Chemistry, Sardar Patel University, V. V. Nagar: 388120, Gujarat since 04th January 2022.

Research Area

- Supramolecular Chemistry, Fluorescence Sensors, Liquid crystals, Supra-Nano assemblies

Expertise

- Organic Spectroscopy, Pericyclic reactions, Stereochemistry, Reactions and Mechanisms

No. of Publication

Journal Articles	:	37
Books	:	14
Book Chapters	:	02

List of Publications (No. of publications = 37, h-index=17, citations= 754, till 04/01/2024)

1. **Pinkesh G Sutariya**, Nishith R Modi, Alok Pandya, Bhoomika Joshi, Kuldeep Joshi and Shobhana K. Menon, *An ICT based “Turn on/off” quinoline armed calix[4]arene fluoroionophore: its sensing efficiency of fluoride from waste water and Zn²⁺ from blood serum*, **Analyst**, 2012,137, 5491-5494. (Impact Factor:4.2)
2. **Pinkesh G. Sutariya**, Alok Pandya, Vipinchandra A. Rana and Shobhana K. Menon, *The influence of linking group in exterior point on mesogenic properties of the basket moulded molecules: calix[4]arene*, **Liquid Crystals**, 2013,40(3),374-383 (Impact Factor: 2.676).
3. **Pinkesh G Sutariya**, Nishith R. Modi, Alok Pandya and V. A Rana, Shobhana K Menon, *Synthesis, mesomorphism and dielectric 2 ehavior of novel basket shaped scaffolds constructed on lower rim azocalix[4]arene*, **RSC Advances**, 2013, **3**, 4176-4180. (Impact Factor: 3.9).
4. **Pinkesh G Sutariya**, Alok Pandya, and Shobhana K Menon, *A highly efficient PET switch on-off-on fluorescence receptor based on calix[4]arene for selective recognition of Cd²⁺ and Sr²⁺*, **Analyst**, 2013, 138, 2244-2248. (Impact Factor:4.2)
5. **Pinkesh G Sutariya**, Alok Pandya, Anand Lodha and Shobhana K Menon, *Fluorescence switch on-off-on receptor constructed on quinoline allied calix[4]arene for selective recognition of Cu²⁺ from blood serum and F- from industrial waste water*, **Analyst**, 2013, 138, 2531-2535. (Impact Factor:4.2)

6. **Pinkesh G Sutariya**, Alok Pandya, Anand Lodha and Shobhana K Menon, A unique fluorescence biosensor for selective detection of tryptophan and histidine, **Analyst** 2014, 139, 4794-4798 (**Impact Factor:4.2**)
7. **Pinkesh G Sutariya**, Alok Pandya, Anand Lodha and Shobhana K Menon, A pyrenyl linked calix[4]arene fluorescence probe for recognition of ferric and phosphate ions, **RSC ADV**, 2014, 4, 34922-34926 (**Impact Factor: 3.9**).
8. **Pinkesh G. Sutariya**, Alok Pandya, Anand Lodha and Shobhana K. Menon, simple and rapid creatinine sensing via DLS selectivity, using calix[4]arene thiol functionalized gold nanoparticles, **Talanta**,**147(2016),590–597** (**Impact Factor: 6.1**).
9. Alok Pandya, Kuldeep V. Joshi, **Pinkesh G Sutariya**, and Shobhana K. Menon, Thioctic acid modified gold nanoprobe for highly specific and ultrasensitive detection of lanthanide in soil and water, **Analytical method**, 2012,4, 3102-3106 (**Impact Factor: 3.1**).
10. Kuldeep Joshi, Bhoomika Joshi, Alok Pandya, **Pinkesh G. Sutariya** and Shobhana Menon, Calixarene capped ZnS quantum dots as an optical nanoprobe for detection and determination of menadione (VK3), **Analyst**, 2012, 20, 137, 4647-4650 (**Impact Factor:4.2**)
11. Alok Pandya, **Pinkesh G. Sutariya** and Shobhana K. Menon, A non-enzymatic glucose biosensor based on ultrasensitive calix[4]arene functionalized boronic acid gold nanoprobe for the sensing in human blood serum, **Analyst**, 2013, 138, 2483-2490. (**Impact Factor:4.2**)
12. Alok Pandya, **Pinkesh G. Sutariya**, Anand Lodha and Shobhana K. Menon, A novel calix[4]arene thiol functionalized silver nanoprobe for selective recognition of ferric ion with nanomolar sensitivity via DLS selectivity in human biological fluid, **Nanoscale**, 2013, 5, 2364-2371. (**Impact Factor: 6.7**).
13. Shobhana K. Menon, Bhoomika R. Mistry, Kuldeep V. Joshi, **Pinkesh G. Sutariya**, Ravindra V. Patel, Analytical detection and method development of anticancer drug Gemcitabine HCl using gold nanoparticles. **Spectrochimica Acta Part A** 94 (2012) 235–242. (**Impact factor: 4.4**).
14. Anand Lodha, Alok Pandya, **Pinkesh G. Sutariya** and Shobhana K. Menon, Melamine modified gold nanoprobe for “on spot”colorimetric recognition of clonazepam from biological specimens, **Analyst**, 2013, 138, 5411-5416 (**Impact Factor:4.2**).
15. Alok Pandya, **Pinkesh G. Sutariya** and Shobhana K. Menon, Protein mediated synthesis of Gold Nanobiocatalyst (AuNBC) by microwave: A high efficient catalytic activity for the selective oxidation of benzyl alcohol, **Journal of molecular catalysis A-Chemical**, 2013, 380, 78-83 (**Impact Factor: 5.089**).
16. Alok Pandya, **Pinkesh G Sutaria**, Anand Lodha and Shobhana K Menon, Host guest mediated sensing of biologically relevant small molecules using supramolecular nanoassembly, **Molecular Cytogenetics**, 2014, 7(Suppl 1):P80, (**Impact Factor: 1.324**).
17. Anand Lodha, Alok Pandya, **Pinkesh G. Sutariya** and Shobhana K. Menon, A smart and rapid colorimetric method for detection of codeine sulphate using unmodified gold nanoprobe, **RSC ADV.**, 2014, 4, 50443-50448 (**Impact Factor: 3.9**).

18. Niha Ansari, Anand Lodha, Alok Pandya, **Pinkesh G. Sutariya** and Shobhana K. Menon, Lab-on-phone citrate-capped silver nanosensor for lidocaine hydrochloride detection from a biological matrix, **Anal. Methods**, 2015, 7, 9084–9091. (Impact Factor: 3.1).
19. Rahul B. Shah, Nikunj N. Valand, **Pinkesh G. Sutariya**, Shobhana K. Menon, Design, synthesis and characterization of quinoline–pyrimidine linked calix[4]arene scaffolds as anti-malarial agents, *J Incl Phenom Macrocycl Chem* (2016) 84:173–178. (Impact Factor: 2.3).
20. K. V. Goswami, T. K. Goswami, S. N. Prajapati, S. S. Andher, P. G. Sutariya, B. S. Patel and S. P. Vyas, Spectral analysis of novel 1-(4-Methyl-2-5-Dimethoxyphenyl) Ethanone Clubbed Chalcone Derivatives, *World Journal of Pharmaceutical Research*, 2015, 4(11), 1864-1870.
21. Alok Pandya, **Pinkesh G. Sutariya** and Shobhana K. Menon, Microwave Assisted Synthesis of Gly-Conjugated Zinc Oxide Nanoparticles and Its Enhanced Non-Conventional Thermotropic Liquid Crystalline Property, *Advanced Science Engineering and Medicine*, Vol. 9, 1–7, 2017.
22. Niha Ansari, Alok Pandya, **Pinkesh Sutariya** and Anand Lodha, Forensic Nanotechnology in Forensic Genetics, *Peer Rev J Foren & Gen Sci* 1(1)- 2018.
23. **Pinkesh Sutariya**, Heni Soni, Sahaj A Gandhi, Alok Pandya, Single step fluorescent recognition of As^{3+} , Nd^{3+} and Br^- consuming pyrene-allied calix[4]arene : Their application to real samples, computational modelling and paper based device, **New Journal of Chemistry**, 2019, 43, 737-747. (Impact Factor: 3.3).
24. **Pinkesh Sutariya**, Heni Soni, Sahaj A Gandhi, Alok Pandya, Novel luminescent paper based calix[4]arene chelation enhanced fluorescence photo induced electron transfer probe for Mn^{2+} , Cr^{3+} and F^- , **Journal of Luminescence**, 2019, 208, 6-17. (Impact Factor: 3.6).
25. **Pinkesh Sutariya**, Heni Soni, Sahaj A Gandhi, Alok Pandya, Novel tritopic calix[4]arene CHEF-PET fluorescence paper based probe for La^{3+} , Cu^{2+} , and Br^- : Its computational investigation and application to real samples, **Journal of Luminescence**, 212 (2019) 171–179.(Impact Factor: 3.6).
26. **Pinkesh Sutariya**, Heni Soni, Sahaj A Gandhi, Alok Pandya, Luminescent behavior of pyrene-allied calix[4]arene for highly pH selective recognition and determination of Zn^{2+} , Hg^{2+} and I^- via CHEF-PET mechanism: Computational experiment and paper based device, **New Journal of Chemistry**, 2019,43, 9855-9864 (Impact Factor: 3.3).
27. **Pinkesh Sutariya**, Heni Soni, Sahaj A Gandhi, Single step synthesis of novel hybrid fluorescence probe for selective recognition of Pr(III) and As(III) from soil samples, **Journal of Molecular Structure**, 2020, 1200, 127053. (Impact Factor: 3.8).
28. Sahaj A Gandhi, **Pinkesh Sutariya**, Heni Soni, Luminescent Novel Calix[4]Arene Based Naphthalene as Drug for Anti-Cancer: A Versatile Material for Drug Design and Applications, **Proceedings of International Conference on Drug Discovery (ICDD) 2020**, SSRN 3529912, 2020.

29. **Pinkesh Sutariya**, Heni Soni, Sahaj A Gandhi, Alok Pandya, Turn on fluorescence strip based sensor for recognition of Sr^{2+} and CN^- via lowerrim substituted calix[4]arene and its computational investigation, **Spectrochimica Acta Part A**. 2020, 238, 118456 (Impact factor: 4.4).
30. **Pinkesh G. Sutariya**, Heni Soni, Sahaj A Gandhi, Jyoti Prasad and Saurabh S. Soni, A dual-response naphthalene-armed calix[4]arene based fluorescence receptor for Zr(IV) and Fe(II) via Ligand to Metal Charge Transfer, **Sensors and Actuators Chemical B.**, 2021, 331, 129417. (Impact factor: 8.4).
31. Heni Soni, Sahaj A Gandhi, Alok Pandya, Pinkesh Sutariya, Dansyl driven fluorescence paper-based quencher probe for Pr^{3+} and I^- based on calix[4]arene, **Journal of Photochemistry & Photobiology, A: Chemistry**, 2022, 431, 114012 (Impact factor: 4.3).
32. Heni Soni, Jyoti Prasad, Alok Pandya, Saurabh S. Soni and **Pinkesh G. Sutariya**, Disposable paper-based PET fluorescence probe linked with calix[4]arene for lithium and phosphate ion detection, **New Journal of Chemistry**, 46, 21115,2022 (Impact Factor: 3.3).
33. Alok Pandya and **Pinkesh G. Sutariya**, Tailored calix[4]arene-gold nanoconjugate as a ultra-sensitive immunosensing nanolabel, **Biomedical Microdevices**, 25, 2023, 1-11 (Impact Factor: 2.8).
34. Sahajkumar A Gandhi, **Pinkesh Sutariya**, Heni Soni, Divyesh Chaudhari, Quantum Dots: Application in Medical Science, **International Journal of Nano Dimension**, 14 (1)2023, 29-40 (Impact Factor: 1.5).
35. Prachi Desai, Vaishnavi Darji, M.P. Deshpande, S.H. Chaki, **Pinkesh G. Sutariya** ,Heni Soni, Piyush Solanki, N.A. Shah, Bharavi Hirpara, High yield synthesis and study of Cu substitution on characteristics and dielectric properties of MgO nanostructures, **Materials Chemistry and Physics**, 299, 127499, 2023 (Impact Factor: 4.6).
36. Abhay M. Agola, Sagnik Mukherjee, Amit Parekh, Atindra Shukla, Pinkesh G. Sutariya, Manish Kumar Mishra, Silica Functionalized with Propylsulfonic Acid as an Efficient Metal -free Catalyst for Isomerization of Longifolene to Iso -longifolene, **Catalysis Letters** <https://doi.org/10.1007/s10562-023-04468-y> (Impact Factor: 2.8).
37. Vaishnaviben Darji, Prachi H. Desai, Milind P Deshpande, Sunil H. Chaki, Vasant G Sathe, Bhupesh S Bhatt, Ravi A. Dabhi, Heni Soni and Pinkesh G Sutariya, Probing the effect of lightly doped Iron in Bi_2S_3 nanostructures on Physiochemical properties and efficacy in anti-microbial activity, **Physica Scripta**, DOI 10.1088/1402-4896/ad0812, (Impact Factor: 2.9).

Book Published

1. Functionalised calix[4]arene fluoroionophore for detection of ions, **Pinkesh Sutariya**, Rinkuben Patel and Kalpeshgiri Goswami, Scholar Press,2014, ISBN 978-3-639-66792-5,
2. Macrocyclic Chemistry and its applications, **Pinkesh Sutariya**, Lulu Academic Publisher, ISBN: 978-1-312-67855-2.
3. Lowerrimcalix[4]arene fluoroionophore for detection of ions, **Pinkesh Sutariya**, Rinkuben Patel and Savan Darjee, Scholar Press,2014, ISBN :978-3-639-66972
4. Functionalised lower rim calix[4]arene liquid crystal properties, **Pinkesh Sutariya**, LAP Lambert Academic Publishing, 2015, ISBN: 978-3-659-68498-2.
5. calix[4]arene and its application for the recognition of biomolecules, **Pinkesh Sutariya**, LAP Lambert Academic Publishing, 2015, ISBN: 978-3-659-31799-6.
6. Functionalized calix[4]arenes and its applications, Nishith Modi and **Pinkesh Sutariya**, LAP Lambert Academic Publishing, 2015, ISBN:978-3-659-47542-9
7. Nanomaterials to Nanoassemblies and their Applications, Alok Pandya, Keyur Bhatt, **Pinkesh Sutariya**, Scholar Press,2014, ISBN 978-3-639-66603-8.
8. Synthesis and Application of Supramolecules Derived from Calix-system, Savan Darjee **Pinkesh Sutariya**, Rinkuben Patel, Scholar Press,2016, ISBN : 978-3-659-83775-3.
9. Fluorometric Sensor based on Thiacalix[4]arene, Savan Darjee and **Pinkesh Sutariya**, LAP Lambert Academic Publishing, 2016, ISBN:978-3-659-87490-1.
10. Synthesis, Characterization and Application of Calix[4]arene Dyes, Nishith Modi **Pinkesh Sutariya** and Rinkuben Patel, LAP Lambert Academic Publishing, 2016, ISBN: 978-3-659-88364-4
11. Nanomaterials and Nanotechnology, Nirav Prakashan, **Pinkesh Sutariya** ISBN: 978-93 85103-77-3.
12. Calix[4]arene based ion-selective electrodes, Nishith Modi, **Pinkesh Sutariya** LAP Lambert Academic Publishing, 2016, ISBN:978-3-659-90684-8.
13. Supra-nano assemblies for recognitions of biomolecules, Savan Darjee and **Pinkesh Sutariya**, LAP Lambert Academic Publishing, 2018, ISBN: 978-620-2-06167-4
14. Organic Spectroscopy; University Press Sardar Patel University, **Pinkesh Sutariya**, 2021, ISBN: 978-93-81386-86-6.

Book Chapters Published

1. Supramolecule nanoassembly and its potential in Advanced Functional Materials, Alok Pandya, Heena Goswami, Anand Lodha and **Pinkesh Sutariya**, Wiley Publisher, 2015, ISBN: 9781118998977.

2. Nano-Tools for Illicit Drug Sensing : Advances and Challenging in Forensic Investigation
 Niha Ansari, **Pinkesh Sutariya**, Alok Pandya, 2019, Nova Science Publishers, ISBN:
 978-1-53616-040-6.

Research/Project Students

Ph.D. students: 02 (Ongoing)

Project Fellow: 03 (Completed)

M.Sc. Dissertation: 01 (completed), 01 (Ongoing)

List of Major projects carried out: 4

No	Title	Funding Agency	Period	GRANT/ AMOUNT MOBILIZED (RS.)	Role
1	Functionalization of novel calix[4]arene fluorescence probe for recognition of molecular ions (Start-up-Research Grant) (YSS/001258/2015)	DST-SERB, NEW Delhi	2016-2019	23,98,000	PI
2.	Hybrid calix[4]arene fluorescence paper based device for recognitions and determination of pesticides (SP/YO/2019/1071) (Young Scientist and Technologist)	DST-SEED, New Delhi	2020-2023	48,44,880	PI
3	Design and synthesis of quantum dots based calix[4]arene: Applications for the detection and determination of biomolecules (GUJCOST/STI/2020-21/2257)	GUJCOST, Gujarat	2021-2024	43,35,496	Co-PI
4.	Bio-inspired aggregation-induced emission (AIE) calix[4]arene conjugates for pesticides and heavy metals from agricultural produces: Electrochemical and paper based device (GSBTM/JD(R&D)/662/2022-23/ 00292534)	GSBTM, Gujarat	2023-2026	28,70,725	PI

Honors/Awards

S.No	Name of Award	Awarding Agency	Year
1.	UGC BSR Fellowship	UGC	2011-2013
2.	Best Poster Presentation (First Prize) (State Level)	Gujarat Arts-Science College, Ahmedabad, Gujarat University	2017
3.	Best Oral Presentation (Second Prize) (National)	Department of Chemistry, Sardar Patel University, V.V.Nagar, Gujarat	2017
4.	Best Poster Presentation (First Prize) (International)	Gujarat Forensic Science University, Gandhinagar, Gujarat	2018
5.	Best Oral Presentation (Second Prize) (National)	Department of Chemistry, Sardar Patel University, V.V.Nagar, Gujarat	2019
6.	Best Poster Presentation (First Prize) (State Level)	Gujarat Science Academy, Ahmedabad	2019
7.	Best Oral Presentation (First Prize) (National)	Department of Chemistry, Sardar Patel University, V.V.Nagar, Gujarat	2020
8.	The most Dynamic Faculty Award	Institute of Advanced Research, Gandhinagar	2020
9.	Bhavan's Best Research Award-2021	Bhavan's Shree I. L. Pandya Arts-Science and Smt. J.M.Shah Commerce College, Dakor	2022

Others

Faculty Development/ Training Program

1. Participated in 37th UGC- Sponsored Orientation Program at Human Resource Development Centre (HRDC), Sardar Patel University, V.V.Nagar from 08/05/2017 to 04/06/2017 (A-Grade).
2. Participated in 4th Online Short-Term Course on E-Content Development at Human Resource Development Centre (HRDC), Gujarat University, Ahmedabad from 14/05/2020 to 20/05/2020.
3. Participated in 33th Online Short-Term Course on E-Content Development and online Pedagogy at Human Resource Development Centre (HRDC), Saurashtra University, Rajkot from 01/06/2020 to 06/06/2020.

4. Participated in 1st Online Refresher Course in Chemistry at Human Resource Development Centre (HRDC), Gujarat University, Ahmedabad from 28/09/2020 to 12/10/2020 (**A Grade**).
5. Participated in 11th Online Guru-Dakshata, Faculty induction Programmes (FIP) at Human Resource Development Centre (HRDC), Gujarat University, Ahmedabad from 19/05/2022 to 17/06/2022 (**A Grade**).
6. Participated in 4th Online Refresher Course in Chemistry at Human Resource Development Centre (HRDC), Gujarat University, Ahmedabad from 09/10/2023 to 22/10/2023 (**A Grade**).

Paper Presented at Conferences:

International: 06 National: 16 State: 20

Invited Talk at Conferences/ Colleges:

National: 02 **State:** 09

Reviewer work in International Journals:

Analytical Methods, RSC Advances, The Journal of Organic Chemistry, Sustainable Chemistry and Pharmacy, Journal of Photochemistry & Photobiology, A: Chemistry, Zeitschrift für anorganische und allgemeine Chemie, International Journal of Biological Macromolecules, Analytica Chimica Acta, Journal of Materials Science, Sensors and Diagnostic, Journal of Fluorescence, Microchemical Journal

Membership

- Life member of National Association of Chemical Security
- Life member of Vigyan Gurjari