

Curriculum Vitae

Dr. Bharatkumar Z. Dholakiya

Associate Professor &HOD

Office Address

Department of Applied Chemistry,

Sardar Vallabhbhai National Institute of Technology (SVNIT), Ichhanath, Surat.

Phone No.: (0261) 2201729 (O), Email: bzdholakiya@chem.svnit.ac.in, bharat281173@gmail.com

SUMMARY

- **Twenty years** of teaching experience.
- **Two years of Industrial experience** in **Torrent Gujarat Biotech Ltd. (TGBL)** as **Production Executive**.
- Extensive research experience as **Program Faculty (Post- Doctoral)** in acid and alkali catalyzed Bio-diesel manufacturing and reactor designing for continuous process.
- **Recognized Ph. D. guide for Chemistry** by SVNIT, Surat and Sardar Patel University, Vallabh Vidyanagar.
- **Recognized Post-graduate teacher** for the Industrial Chemistry by Sardar Patel University, Vallabh Vidyanagar.
- **Schedule – I Environmental Auditor**, Gujarat Pollution Control Board (GPCB), Gandhinagar.
- **Nodal Officer and Coordinator**, Rashtriya Avishkar Abhiyan, Gandhinagar.
- **Chairman**, Sardar Vallabhbhai Patel School managed by SVNIT, Surat.

EDUCATION

Post- Doc.: Texas State University, 601 University Drive, San Marcos, TX-78666, USA

Ultra-High Efficiency Biodiesel Manufacturing.

Ph.D.: Sardar Patel University, Gujarat, India (**Gold Medal**), 2006

Major: **Polymer Chemistry**

Thesis: "Synthesis, Characterization and Application of Acrylic Modified Unsaturated Polyester Resin For Speciality Applications"

M.Sc.: Sardar Patel University, Gujarat, India, May 1996

(Stood first in university and got Gold medal for Academic Excellence)

Major: **Industrial chemistry**

Dissertation: Fluidized Bed Column for Powder Coating.

B.Sc.: Sardar Patel University, Gujarat, India, April 1994

(Stood first in university and got three Gold medals for Academic Excellence)

Major: **Industrial Chemistry**

MEMBERSHIP

- **Member of Board of Studies, P. P. Savani University, Surat**
- **Fellow member of International Congress of Chemistry and Environment (F. I. C. C. E.).**
- **Fellow member of the Indian Council of Chemists (LF 1386).**
- **Fellow member of International Academy of Physical Sciences.**
- **Life Member of Medicinal and Aromatic Plants Association of India.**
- **Life Member of Industrial Chemistry Student Association (MISA)**
- **Member of the scientific committee and editorial review board on Engineering and Physical Sciences, World Academy of Science, Engineering and Technology.**
- **Member, Editorial Board, Journal of Chemistry & Applied Biochemistry, Open Science Publications.**
- **Member, Editorial Board, Universal Journal of Chemistry, Horizon Research Publishing Corporation, USA.**
- **Member, Executive Council, International Academy of Physical Sciences.**

PH.D. STUDENTS GUIDED

| Sr. No. | Name of the Scholar | Title of the Thesis | Month & Year |
|---------|----------------------|--|--------------|
| 1. | Jigarkumar R. Patel | Study on Synthesis of Some Thiophene, Pyrrole, Furan Based Dione Derivatives and their Biological Evaluation | 28/11/2013 |
| 2. | Bhusan Choubisa | Microbial Production of Lactic acid, Polylactic Acid (PLA) Synthesis and Its Application | 15/07/2014 |
| 3. | Mahesh H. Malani | Studies on Design, Synthesis and Biological Evaluation of Carbazole and Tetrazole based Heterocycles | 25/09/2014 |
| 4. | Bhavesh D. Dhorajiya | Studies on Design, Synthesis and Biological Evaluation of Barbiturates and Thiobarbiturates Based Heterocyclic Scaffold | 29/09/2014 |
| 5. | Tejas S. Gandhi | Synthesis and Characterization of Sustainable Rigid Polyurethane Foam from Cashew Nut Shell Liquid | 09/12/2014 |
| 6. | Gopal Chawada | Environmentally Friendly Organic-Inorganic Hybrid Coatings for Corrosion Protection of Metal Alloys | 04/02/2015 |
| 7. | Mehul L. Savaliya | Eco-friendly solid reinforced heterogeneous acid & alkali catalysts for the preparation of biodiesel using different feedstocks | 29/11/2017 |
| 8. | Jayanti S. Makasana | Phytochemical Investigations of Clitoria Ternatea (L.), Aegle marmelos (L.) Corr. and Centella Asiatica (L.) Urb.: Important Medicinal Plants Used in Indian Traditional Medicine System | 29/11/2017 |
| 9. | Amitkumar G. Shirke | Tung Oil Based Polyurethane and its Applications | |
| 10. | Ashishkumar Raychura | A Renewable Approach towards the Development of Wood Protective Polyurethane Coatings from Vegetable Oil-Based Polyols | |

M. Sc. Dissertation

M. Sc. dissertation guided: 19

TEACHING EXPERIENCE

1. Associate Professor in Chemistry: Department of Applied Chemistry, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat, India. **March 2009 – Till date**

2. Senior Lecturer in Industrial Chemistry: Department of Chemical Sciences, Natubhai V. Patel College of pure and applied sciences, Sardar Patel University, Gujarat, India. **June 1998 – June 2008**

PROFESSIONAL EXPERIENCE

1. Program Faculty (Postdoctoral Research): Institute of Environmental and Industrial Science (IEIS), Texas State University, San Marcos, Texas **March 2008 – December 2008**

INDUSTRIAL EXPERIENCE

Production Executive Torrent Gujarat Biotech Ltd. (TGBL), Vil. Masar-391 421, Tal. Padra, Dist. Vadodara, Gujarat – India. Phone: (+91 2662-237212) **June 1996 to June 1998**

RESEARCH PROJECTS

| Sr. No. | Project under taken | Sponsoring Authority | Present Status | PI/ CO-PI |
|---------|--|--|----------------|-----------|
| 1. | Synthesis of Novel Pyrimidine-(2, 4, 6)-(1H, 3H, 5H) Trione Based Anticancer Agents from <i>Rasphanus Stavivus L.</i> (Brassicaceae) as Plant Source and Algae as Marine Source. | GUJCOST, Gandhinagar GUJCOST/MRP/202042/12-3/04/1319, 18-03-2013. | Completed | PI |
| 2. | “Biodiesel Purification: Preparation of Novel Biodegradable Purification Material from Saw Dust and Development of Cutting Cost Dry Wash Biodiesel Purification Technology.” | CSIR, New Delhi 02(0170)/13/EMR-II Date:21-10-2013 | Completed | PI |
| 3. | “Towards Higher Generation Biofuels: Characterization, Material Compatibility, Storage Stability and Engine Performance” | GUJCOST/MRP/2014-15/393 dated 30 th June 2014 | Completed | CO-PI |
| 4. | “Synthesis and Biological Evaluation of Antrocinamomide C and Unnatural Analogues” | Dean (R&C)/1503/2013-2014/priority-I/14 | Completed | PI |
| 5. | Performance, emission and system compatibility studies of CI engine using biodiesel obtained from high free fatty acid oil. | Dean (R&C)/1503/2013-2014 | Completed | CO-PI |

PUBLICATIONS

Patents:

1. “3-halo derivatives of thiomaleic anhydride and process for the preparation thereof” Application No. 3599/MUM/2011, Patent no. 296833.
2. “Controlled release of therapeutic agents using drug impregnated polymer film” Application No. 149/MUM/2012, Patent No. 298644.
3. “An improved process for the preparation of high molecular weight polylactic acid” Application No. 1348/MUM/2014.
4. “Novel biologically active maleimide compounds and use thereof” Application No. 2604/MUM/2014.
5. “Novel process for the preparation of furan 2, 5,-dione derivatives” Application No. 2607/MUM/2014.

Book:

1. Chemistry of Barbiturates and Thiobarbiturates based Chalcones : Fluorinated Barbiturates and Thiobarbiturates, LAP Lambert Academic Publishing, ISBN-13: 978-3-659-87091-0, ISBN-10: 3659870919, 2016.

Book Chapters:

1. Polyester, ISBN 978-953-51-0770-5, , INTECH, Unsaturated Polyester Resin for Specialty Applications, 199-234, 2012.
2. Recent Trends in Water Science and Technology, ISBN 978-93-80358-90-1, First Edition, Charotar Publishing House Pvt. Ltd., Influence of oil and grease towards dairy waste water generation, 176-179, 2014.
3. Plants & Microbes, Discovery of Anticancer Agents from Marine World.
4. Plant Bioactive Compounds for Pancreatic Cancer Prevention and Treatment, ISBN: 978-1-63463-357-4, Plants in the Subcontinent As Potential Anti-Cancer Agents.

Papers Published:

1. Eco-friendly process for preparation of biodiesel from WFO over MTSA-Si catalyst: An innovative approach for the utilization of side product, *Journal of Industrial and Engineering Chemistry*, 64,352-366, 2018.
2. Kinetics, Thermodynamics and Isothermic Evaluation in Sorption Study of Hazardous Dye Using Sodium Dodecylsulfate Physically Impregnated in Polyeter-Type Polyurethane Foam, *Journal of Surfactants and Detergents*, DOI 10.1002/jspd.12004, 2018.
3. Development of Non-Traditional Vegetable-Oil-Based Two-Pack Polyurethane for Wood-Finished Coating: An Alternative Approach, *Chemistry Select*, 3,10837–10842, 2018.
4. A renewable approach toward the development of mahua oil-based wood protective polyurethane coatings: Synthesis and performance evaluation, *Journal of Applied Polymer Science*, 46722 (2 of 11), 2018.
5. Synthesis and performance evaluation of vegetable oil based wood finish polyurethane coating, *Bioresource Technology Reports* 3, 88–94, 2018.
6. Development of wood protective polyurethane coatings from mahua oil-based polyetheramide polyol: a renewable approach, *Journal Soft Materials*, 16 (3), 2018.
7. A simple and sustainable process for the preparation of fuel grade esters using PE-Si composite: A reusable catalytic system, *Renewable energy*, 109, 1-12, 2017.
8. Extractive determination of bioactive flavanoids from butterfly pea (*Clitoria ternatea* Linn.), *Research on Chemical Intermediates*, DOI 10.1007/s11164-016-2664-y, 43(2), 783-799, 2017.
9. Modification of tung oil-based polyurethane foam by anhydrides and inorganic content through esterification process, *Journal of Applied Polymer Science*, DOI: 10.1002/APP.45786, 2017.
10. Cutting cost technology for the preparation of biodiesel using environmentally benign and cheaper catalyst, *Catalysis Letters*, 146:2313-2323, 2016.
11. Effect of seed treatment on germination and flavonoids diversity in accessions of butterfly pea (*Clitoria ternatea*), *Indian Journal of Agricultural Sciences* 86 (12): 1553–8, 2016.
12. Assessment of chemical diversity in *Clitoria ternatea* accessions by an improved and validated HPTLC method, *Indian Journal of Agricultural Sciences* 86 (9): 1133–9, 2016.
13. Design, Synthesis and Comparative Study of Anti-Microbial Activities on Barbituric Acid and Thiobarbituric Acid based Chalcone Derivatives Bearing the Pyrimidine Nucleus, *Chemical Sciences Journal*, 7:2, 2016.
14. Extraction of Sapodilla Seeds Oil from Sapodilla Seeds and Study of Their Physico-Chemical Parameter, *Journal of Applicable Chemistry*, 5(6), 1267-1275, 2016.
15. Influence of organic corrosion inhibitors on the corrosion performance of organic–inorganic hybrid coatings applied on aluminium alloy, *Research on Chemical Intermediates*, 42 (2), 545-557 DOI: 10.1007/s11164-015-2040-3:2015, 2016.
16. A simpler and highly efficient protocol for the preparation of biodiesel from soap stock oil using a BBSA catalyst, *RSC Advances*, Royal society of chemistry 5, 74416, 2015.
17. Novel applications of castor oil based polyurethanes: a short review, *Polymer Science, Series-B*, Vol. 57, No. 4, pp. 292–297, 2015.
18. Mechanical, thermal and fire properties of sustainable rigid polyurethane foam derived from cashew nut shell liquid, *International Journal of Plastics Technology*, DOI 10.1007/s12588-015-9114-3, 2015.
19. Synthesis of Cashew Mannich Polyol via three Step Continuous Route and Development of Polyurethane rigid foams with Mechanical, Thermal and Fire Studies, *J Polym Eng*, DOI 10.1515/polyeng 2014-0176, 2014.
20. A notice on newly synthesized silica-induced boron trisulfonic acid catalyst towards biodiesel synthesis from refined soybean oil, *Research on Chemical Intermediates*, DOI 10.1007/s11164-014-1885-1, 2014.
21. Cellulose sulfuric acid catalyzed esterification of biodiesel derived raw glycerol to medium chain triglyceride: The dual advantage, *Catalysis letters*, DOI 10.1007/s10562-014-1275-8, 2014.
22. "Nucleobase-Based Barbiturates: Their Protective Effect against DNA Damage Induced by Bleomycin–Iron, Antioxidant and Lymphocyte Transformation Assay", *BioMed Research International*, <http://dx.doi.org/10.1155/2014/898670>, 2014.

23. Current Trends in Separation and Purification of Fatty Acid Methyl Ester: A Review, Separation & Purification Reviews, Taylor & Francis, DOI: 10.1080/15422119.2013.872126, 2014.
24. Synthesis and Selective Cytotoxicity of Novel Biphenyl-based Tetrazole Derivatives, Medicinal Chemistry Research, DOI: 10.1007/s00044-014-1010-4, 2014.
25. Tung Oil Based Polyurethanes: A short review, Journal of Polymer & Composites Volume 3, Issue 3 ISSN: 2321-2810(online), ISSN: 2321-8525, 2015.
26. "In Vitro Cytotoxicity, Antioxidant, Bleomycin dependent DNA Damage and Immunomodulatory Evaluation of 1-(4-acetylphenyl)-3-aryloxypyrrolidine-2, 5-dione based Derivatives", Medicinal Chemistry Research, DOI 10.1007/s00044-014-0965-5, 2014.
27. "Hybrid Probes of Aromatic Amine and Barbituric Acid: Highly Promising Leads for Antibacterial, Antifungal and Anticancer Activities", Medicinal Chemistry Research, DOI 10.1007/s00044-014-0973-5, 2014.
28. An Experimental Investigation on Methyl Laurate Production via Direct Esterification of Solid Fatty Acid by using Amylum sulfuric acid: An efficient, biodegradable and recyclable solid acid catalyst", Research on Chemical Intermediates, DOI 10.1007/s11164-014-1548-2, 2014.
29. Environment friendly sol-gel pre-treatments for corrosion protection of aluminium alloys, Research Journal of Chemistry and Environment, Vol. 18(10), 22-27, 2014.
30. Anticancer, Antibacterial, Antifungal Activities for Hybrid Probes of Aromatic Amine and Barbituric Acid, GSTF International Journal of Chemical Sciences (JChem), Vol.1 No.2, 24-31, DOI 10.1007/s10562-014-1275-8, 2014.
31. Green Chemistry Multi-Component Protocol for Formylation and Knoevenagel Condensation for Synthesis of (Z)-5-arylaminomethylene pyrimidine 2, 4, 6-trione Derivatives in Water, Green Chemistry Letters and Reviews, Taylor & Francis, 2014.
32. An Efficient Synthesis and Antiviral Activity Evaluation of 1-[4-(5-Phenyl- 4, 5 dihydro-1H-pyrazole [& (4, 5 dihydroisoxazole)]-3-yl)-phenyl]-pyrrole-2, 5-dione derivatives, Anti-Infective Agents, Bentham Science Publisher, Vol. 12, 104-111, 2014.
33. A Concise Review on Acid, Alkali and Enzyme Catalyzed Transesterification of Fatty Acid Esters of Glycerol (FAEG) to Fatty Acid Methyl Ester (FAME) Fuel, International Journal of Chemical Studies Volume 1 Issue 3, 5-19, 2013.
34. Thermal and Mechanical Properties of Adipic Acid Modified Unsaturated Polyester Resin and Jute Composite, International journal of pharmaceutical research scholars (IJPRS) ISSN NO.2277-7873 Vol 2, 1-4, 131-138, 2013.
35. Organic-inorganic hybrid sol-gel pretreatments for corrosion protection of mild steel in neutral and acidic solutions, Research on Chemical Intermediates, DOI 10.1007/s11164-013-1479-3, 2013.
36. Fatty acid methyl ester production from acid oil using silica sulfuric acid: Process optimization and reaction kinetics, Chemical Papers, Springer, DOI: 10.2478/s11696-013-0488-4, 2013.
37. Extraction protocol for isolation of CNSL by using protic and aprotic solvents from cashew nut and study of their physico-chemical parameter, Polish Journal of Chemical Technology, Vol. 15, No. 4, 2013.
38. Synthesis, Characterization and In Vitro Screening on Bacterial, Fungal and Malarial Strain of PiprazinylCyano Biphenyl Based Compounds, Bioorganic Chemistry, Science direct, Vol.51, Pages 16-23, 2013.
39. Design and synthesis of novel nucleobase based barbiturate derivatives as potential anticancer agents, Medicinal Chemistry Research, Springer, DOI: 10.1007/s00044-013-0683-4, 2013.
40. Green chemistry multi-component approach for N-formylation and Knoevenagel condensation for synthesis of thiobarbiturates in aqueous system, Research on Chemical Intermediates, Springer, DOI 10.1007/s11164-013-1190-4, 2013.
41. In vitro brain GABA-transaminase activity of 1-(4-acetylphenyl)-3-aryloxypyrrolidine-2, 5-dione derivatives, Journal of Pharmacy Research (JPR), Elsevier Vol. 6, 442-446, 2013.
42. Chemical Transformation of Triglycerides of Fatty Acid of Pongamiapinnata seed to Fatty Acid Methyl Esters by Microwave Irradiation, Chemical Sciences Journal, Vol. 2013, CSJ-104, 1-6, 2013.

43. Synthesis and characterization of polylactic acid (PLA) by using SSA, CSA and TPA type solid acid catalyst system in polycondensation method, *Journal of Macromolecular Science, Part A*, Taylor & Francis, Vol. 50, 828 – 835, 2013.
44. Synthesis and characterization of different types of epoxide-based Mannich polyols from low-cost cashew nut shell liquid, *Research on Chemical Intermediates*, Springer Vol. 39(2), DOI 10.1007/s11164-013-1034-2, 2013.
45. Microbial Evaluation of Carbazonyloxy Based Chalcones, *Research on Chemical Intermediates*, Springer Vol. 39(2), DOI: 10.1007/s11164-012-0915-0, 2013.
46. Synthesis of carbazonyloxy-based chalcones, *Research on Chemical Intermediates*, Springer 39, 1089-1100, DOI 10.1007/s11164-012-0668-9, 2013.
47. Measurement and evaluation of total dissolved solid (TDS) from dairy ETP and its comparison with other plants and possible load reduction method, *Acta Chimica & Pharmaceutica Indica*, Vol. 3(1), 17-20, 2013.
48. A Study of Dairy Effluent on the basis of DO Value and a Comparative Analysis of ETP with respect to other Plants and Possible Load Reduction Method, *International Journal of Pharmaceutical and Chemical Sciences*, Vol. 2 (1) 187-190, 2013.
49. Facile Michael-type addition of aromatic alcohols to N-(4-acetylphenyl)maleic imide, *Research on Chemical Intermediates*, Springer Vol. 38(9), DOI 10.1007/s11164-012-0932-z, 2012.
50. Polyester Polyol Derived From Waste Poly (Ethylene Terephthalate) for Coating Application on Mild Steel, *Chemical Sciences Journal*, Vol. 2012, CSJ-76, 1-7, 2012.
51. Synthesis, characterization, solvatochromic properties and antimicrobial evaluation of 5-acetyl-2-thioxo-dihydropyrimidine-4,6-dione-based chalcones, *Medicinal Chemistry Research*, Springer Vol. 22(9), 4075-4086, 2012.
52. Synthesis and characterization of polylactic acid (PLA) using a solid acid catalyst system in the polycondensation method, *Research on Chemical Intermediates*, Springer Vol. 38(8), DOI 10.1007/s11164-012-0819-z, 2012.
53. Silica Sulfuric acid catalyzed Claisen-Schmidt Condensation of 1, 3, 4 Trisubstituted Pyrrole 2, 5 Dione to Chalcones, *Research on Chemical Intermediates*, Springer Vol. 34(8-9), DOI: 10.1007/s11164-012-0553-6, 2012.
54. Extraction and Preservation Protocol of Anti-Cancer Agents from Marine World, *Chemical Sciences Journal*, Vol. 2012, CSJ-38, 1-12, 2012.
55. Studies on effect of various solvents on extraction of cashew nut shell liquid (CNSL) and isolation of major phenolic constituents from extracted CNSL, *J. Nat. Prod. Plant Resour.*, Vol. 2 (1):135-142, 2012.
56. Antimicrobial activities of synthesized and characterized 5-acetyl pyrimidine-2, 4, 6-(1H, 3H, 5H)-trione based chalcones, *Der Pharma Chemica*, Vol. 4(1), 141-146, 2012.
57. Microbial Production of Lactic Acid by Using Crude Glycerol from Biodiesel, *Journal of Microbiology and Biotechnology Research*, Vol. 2(1), 90-93, 2012.
58. Plant product (R) - Roscovitine valuable inhibitor of CDKs as An anti-cancer agent, *Der Pharmacia Sinica*, Vol. 3 (1):131-143, 2012.
59. Synthesis of 1-(4-((E)-3-arylacryloyl) phenyl)-3, 4 dibromo-1H-pyrrole-2, 5-diones and screening for Anticandida and Antituberculosis Activity, *Medicinal Chemistry Research*, Vol. (21), 1977-1983, 2012.
60. Super Phosphoric Acid Catalyzed Biodiesel Production from Low Cost Feed Stock, *Archives of Applied Science Research*, Vol. 4 (1), 551-561, 2012.
61. A Study of Dairy Effluent of Various Products on the Basis of oil and Grease Value and a Comparative Study Between Common ETP with respect to other Plants and Possible Load Reduction Method, *Acta Chimica Pharmaceutica Indica*, Vol. 2(3), 151-155, 2012.
62. Methods Involve in Protein Engineering for Study and Construction of Novel Proteins, *Journal of Biochemistry and Biotechnology*, Vol. 3(1), 55-67, 2012.
63. Polymorphism in Organic Crystal Structure, *Research Journal of Chemistry and Environment*, Vol. 16(3), 134-145, 2012.

64. Synthesis, characterization & Antimicrobial activity of 4'-aminochalcone based dibromomaleimides, Der Pharma Chemica, Vol. 3(1), 458-466, 2011.
65. Plant derived compounds having activity against P388 & L1210 leukemia cells, Chemical Sciences Journal, Vol. 2011, CSJ 33, 1-16, 2011.
66. Antituberculosis, Antifungal and Thermal Activity of Mixed Ligand Transition Metal Complexes, Applied Organometallic Chemistry, John Wiley & Sons, Vol. 24, 821-827, 2010.
67. Use of non-traditional fillers to reduce flammability of polyester resin composites, Polimeri, Vol. 30(1), 10-17, 2009.
68. Reinforced Polymer Composite having Improved Fire Retardant Properties, Material Science Research India, Vol. 6(2), 505-512, 2009
69. Kaolin filled unsaturated polyester resin based electrical laminates in Chemical Engineering World, Vol. 40(7), 80-85, July 2005.
70. Synthesis, Characterization and Glass reinforced Laminates of Acrylic modified Unsaturated Polyester Resin for electrical application in Ultra Science Vol. 17(2), 185-196 (2005).
71. Polyurethanes based on respropiophenone in Ultra Science Vol. 17(3), 449-452 (2005).
72. Novel epoxy resins based on diglycidyl ether of respropiophenone.in European Journal of Scientific Research, Vol. 11 (4) 668-675, 2005.
73. Reinforced Polymer Composites Based on Acrylic Modified Polyester Resin-Kaolin having Improved Electrical and Mechanical Properties in E-Journal of Chemistry, Vol. 02, No. 09, September 2005.
74. Composites of N, N'- dimethylolthiourea resorsinol resin in Chemical Engineering World, Vol. 41(1), 59-61, January 2006.
75. A study on the efficacy of clove oil as an antioxidant for vegetable oils in Ultra Chemistry Vol. 3(1), 73-76, 2007.
76. Vinyl ester resins based on diglycidyl ether of respropiophenone in Chemical Engineering World, Vol. 42(6), 52-60, July 2007.
77. Reinforced polymer composites based on acrylic modified unsaturated polyester resin-mica having improved electrical and mechanical properties in Ultra Science Vol. 19(3), 397-404, 2007.
78. Synthesis of Polyurethanes from respropiophenone-formaldehyde resin in Modern Plastics & Polymers, Vol. 3(3), 66-67, September 2007.
79. Synthesis, Characterization and Glass reinforced Composites of Low Styrene Emission Unsaturated Polyester Resin having improved fire resistance and mechanical properties in Macromoleculu, An Indian Journal, MMAIJ, 3(4), 169-175, 2007.

PAPERS PRESENTED IN RENOWNED INTERNATIONAL CONFERENCE

| Sr. No. | Title of the Article | Name of Conference |
|---------|---|--|
| 1. | A Material Compatibility Study of Automotive Elastomers with high FFA based Biodiesel | 7 th International Conference of Applied Energy, Masdar Institute, Abu Dhabi-UAE, 28-31 March 2015. |
| 2. | A facile approach towards biodiesel synthesis from refined soybean oil over Silica sustained Boron tri sulfonic acid catalyst | 3 rd Annual International Conference on Chemistry, Chemical Engineering and Chemical Process, Global Science & Technology Forum, Singapore, 26 - 27 January 2015. |
| 3. | Anticancer, Antibacterial, Antifungal Activities for Hybrid Probes of Aromatic Amine and Barbituric Acid | 2 nd Annual International Conference on Chemistry, Chemical Engineering and Chemical Process, Global Science & Technology Forum, Singapore, 03 -04 February 2014. |
| 4. | Polyurethane as modified anti-corrosive material under the influence of anti-blistering agent. | International conference on environmental chemistry and engineering (ICECE-17), Dubai, 30 th September 2017. |

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| 5. | Development and performance Evaluation of Vegetable Oil Based Wood Protecting Polyurethane Coating: An Alternative Approach. | 20 th international conference of International Academy of Physical Sciences (CONIAPS XX) on Recent Advances in Physical Science and Future Challenges, Faculty of science, Osmania University, Hyderabad, 14 th – 16 th July 2017. |
| 6. | Cutting cost technology for the preparation of biodiesel using environmentally benign and cheaper catalyst | 19 th international conference of International Academy of Physical Sciences (CONIAPS XIX) & symposium on Fixed Point and Dynamical Systems, Dept. of Maths & Dept. of Computer Science, Kumaun University, Nainital, 17 th – 19 th October 2016 |
| 7. | A facile approach towards biodiesel synthesis from refined soybean oil over silica sustained boron tri sulphonic acid catalyst | 3 rd Annual International Conference on Chemistry, Chemical Engineering and Chemical Process (CCECP 2015), Singapore, 26 th -27 th January 2015. |
| 8. | Synthesis, characterization and bioassay of fluorinated quinoline derivatives. | 18 th international conference of International Academy of Physical Sciences (CONIAPS XVIII) on recent Trends in Physical Science, Faculty of Science, University of Allahabad, Allahabad, 22 nd – 24 th December 2015. |
| 9. | In vitro cytotoxicity, xanthene oxidase inhibition & antimicrobial activities of thio-barbituric acid linked with various aromatic amines. | 17 th international conference of International Academy of Physical Sciences (CONIAPS XVII) on Emerging Trends in Physical Sciences & Technology, University of Rajsthan, Jaipur, 16 th -18 th January 2015. |
| 10. | Anticancer, Antibacterial, Antifungal Activities for Hybrid Probes of Aromatic Amine and Barbituric Acid. | 2 nd Annual International Conference on Chemistry, Chemical Engineering and Chemical Process (CCECP 2014), Singapore, 3 rd – 4 th February 2014. |
| 11. | A Phosphrous Containing Poly(lactic acid) towards its Flame Retardation. | International Conference on Advanced Polymeric Materials (ICAPM 2013), Mahatma Gandhi University, Kottayam, Kerala, India, 11 th -13 th October 2013. |
| 12. | Polyester Polyol Derived from Waste Poly(Ethylene Terephthalate) for Coating Application on Mild Steel. | 15 th International Conference of International Academy of Physical Sciences (CONIAPS XV), Rajamangala University of Technology Thanyaburi, Thailand, 09 th -13 th December 2012. |
| 13. | Synthesis and Characterization of Polylactic acid (PLA) Using a Solid Acid Catalyst System in the Poly-condensation Method. | 14 th International Conference, International Academy of Physical Sciences (CONIAPS-XIV) on Physical Sciences Interface With Humanity, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, 22 nd -24 th December 2011. |
| 14. | Super Phosphoric Acid Catalyzed Biodiesel Production from Low Cost Feed Stock. | 1 st IFIP International Conference on Bioinformatics, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, 25 th -28 th March 2010. |
| 15. | Cutting Costs for Biodiesel Manufacturers with Fiber Reactors. | A Seminar on Commercial Presentation on Biodiesel for Lehigh Cement Ltd. USA, 6 th November 2008. |
| 16. | Ultra Efficient Biodiesel Manufacturing using Fiber Film Reactor. | A Seminar on Commercial Presentation on Biodiesel for Merichem Ltd. USA, Institute of Environmental and Industrial Science, Texas State University, San Marcos, TX-USA, 15 th October 2008. |
| 17. | Ultra Efficient Biodiesel Manufacturing. | A Seminar on Commercial Presentation on Biodiesel for Shell Ltd. USA, Institute of Environmental and Industrial Science, Texas State University, San Marcos, TX-USA, 24 th September 2008. |

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| 18. | Optimization of Process Parameters using "Design Expert-6 Software". | Seminar on "Design Expert-6", Institute of Environmental and Industrial Science, Texas State University, San Marcos, TX-USA, 02 nd September 2008. |
| 19. | Recent advances in the use of non-traditional fillers to develop new ecological composites with reduced flammability and lowers cost of polyester resins. | UGC sponsored State Level one day Seminar on "Recent trends and future challenges in chemical sciences", Pramukh Swami Science & H. D. Patel Arts College, HNG University, Kadi, Gujarat, India, 28 th February 2008. |
| 20. | Synthesis, Characterization and Glass reinforced Composites of Low Styrene Emission Unsaturated Polyester Resin having improved fire resistance and mechanical properties. | National Seminar on Novel Trends in Polymer Science & Technology, Dept. of Chemistry Sardar Patel Uni. V. V. Nagar-388120, 8 th - 9 th March 2007. |
| 21. | Reinforced polymer composites based on acrylic modified unsaturated polyester resin-mica having improved electrical and mechanical properties. | State Level Seminar on "Recent Advances In Chemistry", V. P. & R. P. T. P. Science College, V. V. Nagar-388120, 18 th - 19 th June 2006. |
| 22. | Kaolin filled unsaturated polyester resin based electrical laminates. | XIX Gujarat Science Congress, Dept. of Chemistry Sardar Patel Uni. V. V. Nagar-388120, 19 th February 2005. |

WINTER, SUMMER SCHOOLS AND CONFERENCES ORGANIZED

- Organized AICTE sponsored Staff Development Program (SDP) on "**Recent developments and future trends of nanotechnology in modern science**" at Applied Chemistry Department, SVNIT from 21/12/2009 to 25/12/2009.
- Organized expert lecture on "**Carbon Nanotubes: The wondrous world of carbon**" by Dr. Mitali Saha, Fast Young Scientist, Department of Chemistry, IIT, Kanpur at Applied Chemistry Department, SVNIT on 04/07/2009.
- Organized 1st IFIP International Conference on **Bioinformatics** at Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat on March 25-28, 2010.
- Organized DST sponsored **Science Camp for INSPIRE Internship under INSPIRE Program** from 20/12/2010 to 24/12/2010 at Applied Chemistry Dept., SVNIT, Surat.
- Organized 14th International conference of International Academy of physical Sciences (CONIAPS-XIV) on Physical Sciences Interface with Humanity from 22-24 December 2011, SVNIT, Surat.
- Organized DST sponsored **Science Camp for INSPIRE Internship under INSPIRE Program** from 12th -16th February, 2011 at Applied Chemistry Dept., SVNIT, Surat.
- Organized DST sponsored **Science Camp for INSPIRE Internship under INSPIRE Program** from 27th -31st August, 2011 at Applied Chemistry Dept., SVNIT, Surat
- Organized The Royal Australian Chemical Institute, Australia & Tata Chemicals, India sponsored **an International Chemistry Quiz 2011 (ANCQ 2011)** on 9th September, 2011 at Applied Chemistry Department, SVNIT, Surat.
- Organized **International Conference on Physical Science Interface with Humanity** in association with International Academy of Physical Science from 22-24th December, 2011 at SVNIT, Surat.
- Organized TEQIP-II sponsored One Week Short Term Training Programme on "**Advanced Materials, Characterization and Applications in Materials Science and Engineering (AMCAME-2013)**" from 2nd – 6th Sept, 2013 at Applied Chemistry Department, SVNIT, Surat.
- Organized CHEMINNOVA 2015, A National Level Paper Presentation Competition based on New Trends & Development in Chemical Sciences on 31/01/2015 by Applied Chemistry Department, SVNIT, Surat and Industrial Chemistry Department, ISTAR, Vallabh Vidyanagar.

12. Organized TEQIP-II Sponsored Short Term Training Programme on Advanced Analytical Techniques for Materials Characterization (AATMC-2015) from 23/02/2015 to 27/02/2015 at Applied Chemistry Department, SVNIT, Surat.
13. Organized TEQIP-II Sponsored Short Term Training Programme on Micro- & Macro Chemistry Meets Technological Developments (M²CMTD-2016) from 06/10/2016 to 10/10/2016 at Applied Chemistry Department, SVNIT, Surat.
14. Organized TEQIP-II Sponsored Short Term Training Programme on Journey of Analytical Techniques in Chemical and Biological Sciences (JATCBS-2016) from 19/12/2016 to 24/12/2016 at Applied Chemistry Department, SVNIT, Surat.

WINTER AND SUMMER SCHOOLS ATTENDED

1. Attended AICTE sponsored Summer School on **"Nanotechnology and Applications"** from 13th July 2009 to 17th July 2009 organized by Electronics Engineering Department at Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
2. Attended AICTE sponsored STTP on **"Pedagogy & Research Methodology (PRM)"** from 03rd August 2009 to 07th August 2009 jointly organized by Department of Chemical Engineering and Department of Mechanical Engineering at Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
3. Attended AICTE sponsored Summer School (STTP) on **"Advanced Instrumental Methods of Analysis"** from 24th August 2009 to 28th August 2009 at Department of Chemical Engineering, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
4. Attended AICTE sponsored staff development programme on **"Advances in Condensed Matter Physics"** from 31st August 2009 to 04th September 2009 at Department of Applied Physics, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
5. Attended AICTE sponsored staff development programme on **"Non-Destructive Testing"** from 5th October 2009 to 09th October 2009 at Department of Applied Physics, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
6. Attended AICTE sponsored staff development programme on **"Advance Topics in Physics"** from 2nd to 5th February, 2010 at Department of Applied Physics, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
7. Attended AICTE sponsored staff development programme on **"Optics and Photonics"** from 22nd to 26th February, 2010 at Department of Applied Physics, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
8. Attended **Short Term Training Programme (STTP)** on **"Modern Techniques in Analytical Chemistry"**, from **25-29 July, 2011** at Department of Chemistry, Kachchh University, Bhuj.
9. Attended TEQIP-II sponsored workshop on **"Recent Advances in Computational Techniques for Material Engineering Practices (RACTMEP-2013)"** from 05-09, August, 2013 organized by Department of Applied Physics, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
10. Attended TEQIP-II sponsored one week short term training programme on **"Advances on Wastewater Treatment and Energy Generation"** from 30th September-04th October, 2013 organized by Department of Chemical Engineering, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.
11. Attended TEQIP-II sponsored one week short term training programme on **"Current Scenario in Chemical Sciences and Technology (CSCST-2017)"** from 25th-29th January, 2017 organized by Department of Applied Chemistry, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat- India.

HONORS AND AWARDS

1. Awarded “**Jawaharlal Nehru Memorial Fund Award**” for securing first rank in B. Sc. Examination held by the Sardar Patel University during the year 1993-1994.
2. Awarded **Appreciation Certificate as Process Owner of Placement and Career Planning** Committee to acknowledge efforts in bringing the honor of Achieving **ISO 9001-2000 certificate** to Natubhai V. Patel College of Pure & Applied Sciences.
3. Won “M/S Overseas Silk Mills PVT. LTD., Surat” **GOLD MEDAL** for securing highest number of marks in the subject Industrial Chemistry from amongst all the students of T.Y.B.Sc. of V.P. & R.P.T.P. Science College in the year 1993-1994.
4. Won “Shri Kuberbhai Vrajbhai Patel” **GOLD MEDAL** for passing the B.Sc. degree examination in the first class with Distinction and stood first class (i.e. 913/1280) in the external assessment in the theory examination of S.Y.B.Sc. and T.Y.B.Sc. Examination taken together by Sardar Patel University in the year 1994.
5. Won “Dipee Chemicals Private Limited (Ankleshwar)” **GOLD MEDAL** for passing the B.Sc. degree examination in the first class with Distinction obtaining highest number of marks (i.e. 542/720) in the external assessment (Theory only) from amongst the students who have passed the B.Sc. degree Examination offering ‘Industrial Chemistry’ as principal subject by Sardar Patel University in the year 1994
6. Won “Sumanben Shantibhai Patel” **GOLD MEDAL** for securing highest number of marks in the subject Industrial Chemistry from amongst all the students of M. Sc. of V.P. & R.P.T.P. Science College in the year 1996.
7. Won “VPM Golden Jubilee” **GOLD MEDAL** for excellent work done during research for Ph.D. degree in the subject Chemistry at V.P. & R.P.T.P. Science College in the year 2006.
8. Won Shri Mahijibhai and Shri Manibhai Devajibhai Patel **prize** for securing highest number of marks in the subject of Physics from amongst all the students of S.Y.B.Sc. of V.P. & R.P.T.P. Science College in the year 1993.
9. Won Shri Ramanbhai Ranchhodhbhai Patel **prize** for securing highest number of marks in the subject Industrial Chemistry from amongst all the students of S.Y.B.Sc. of V.P. & R.P.T.P. Science College in the year 1993.
10. Won Shri Khusalbbhai Kalidas Patel **prize** for securing highest number of marks in the subject Industrial Chemistry from amongst all the students of T.Y.B.Sc. of V.P. & R.P.T.P. Science College in the year 1993-1994.
11. Won award for scientific contribution for Article Published in “Modern Plastics & Polymers” from Info-media India Limited in the year 2006.
12. Won award for scientific contribution for Article Published in “Modern Plastics & Polymers” from Info-media India Limited in the year 2007.