Dr. D. K. Raval

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Educational qualification: M.Sc.; Ph.D.

Academic experience: 27 years

Research area: Organic Chemistry/ Polymer Chemistry

Expertise: Organic Synthesis

No. of Publication: 62

List Of Publication

1. Grafting of Methyl Methacrylate onto Guar gum by Hydrogen peroxide Initiation. D.K.Raval, R.G.Patel and V.S.Patel, J. Appl. Polym. Sci., 35, 2201(1988) Impact factor: 1.768.
2. Rheological Properties of Leucaena Glauca gum in Aqueous solution. D.K.Raval, R.G.Patel and V.S.Patel., Starch, 40, 214-18(1988) Impact factor: 4.76
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4. Graft copolymerization of acrylonitrile on to Guar gum by hydrogen peroxide initiation. D.K.Raval, R.G.Patel and V.S.Patel., Starch, 40, 66-69(1988) Impact factor: 4.76
5. Impact factor: 4.76 Modification and Characterization of Leucaena Glauca seed gum by Graft Copolymerization with Acrylonitrile. D.K.Raval, M.V.Patel, R.G.Patel and V.S.Patel., Starch, 42, 226-29(1990)

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12. A study on Reaction Influencing Factors in Carboxymethylation of Leucaena glauca seed gum. D.K.Raval, S.P.Patel, R.G.Patel and V.S.Patel. , Starch, 46, 399-402(1994). Impact factor: 4.76
13. The Conservation of some Indian and Chinese Sculptures and the Objects of the Chess sots of Ivory Possessed by the University Museum. D.K.Raval, N.H.Shastri & A.A.Sayed., Prajna (Jr. of SPU), 5, 13-20(1995).
14. Novel Epoxy Based Curing agent for Coating Application. D.K.Raval, R.A.Baraiya & J.R.Thakkar., International Journal of Polymeric Materials and Polymeric Biomaterials, 38, 1-5 (1997) DOI: 10.1080/00914039708031490 Impact factor: 3.568
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19. Novel vinyl Ester Resin and its Urethane Derivatives for Glass Reinforced Composites. D.K.Raval, S.V.Patel & J.R.Thakkar., Die Angew Makromol.Chemie., 265, 13-15(1999) Impact factor: 4.76
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22. Fabrication and Characterization of Glass Fiber Reinforced composites from 2,3-Epoxypropyl3-(2-furyl)acrylate and Acrylonitrile. R.B.Patel, S.K.Vyas & D.K.Raval , Macromol. Mater. Eng., 287(2), 133-138(2002) Impact factor: 2.661
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24. Preparation, Characterization and composites form low formaldehyde emission ureaformaldehyde-casein copolymer. Amit J.Patel, Bhavil N.Narola & D.K.Raval , J. Appl. Polym. Sci., 98(2), 531-537(2005) ID No. 14656 Impact factor: 1.768
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29. A Convenient and Efficient Protocol for the One Pot Synthesis of 3,4-Dihydropyrimidin-2-(1H)-ones Catalyzed by Ionic Liquids under Ultrasound Irradiation A.N.Dadhania, V.K.Patel & D.K.Raval , J. Braz. Chem. Soc., 22(3), 511-516(2011) Impact factor: 1.434
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33. Polymer supported sulfanilic acid - A Novel Green Heterogeneous catalyst for synthesis of benzimidazole derivatives Umesh Tarpada, Bhautik Thummar & D. K. Raval , Journal of Saudi Chemical Society, in press http://dx.doi.org/10.1016/j.jscs.2012.07.014 Impact factor: 2.523
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35. Study on one-pot Biginelli-Like synthesis of Pyrazolo[3,4-d]pyrimidines in Bronsted acidic ionic liquid under sonication and its mechanism Bhautik Thummar, Umesh Tarpada & D. K. Raval , Journal of Heterocyclic Chemistry, in press, 10.1002/jhet.1870 Impact factor: 0.787
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38. One-pot solvent-free rapid and green synthesis of 3,4-dihydropyrano[c]chromenes using grindstone chemistry Devji S. Patel, Jemin Avalani and D. K. Raval , Journal of Saudi Chemical Society, http://dx.doi.org/10.1016/j.jscs.2012.12.008 Impact Factor: 2.523
39. Saccharomyces cerevisiae catalyzed one pot synthesis of isoindolo[2,1-a]quinazoline performed under ultrasonication J.R. Avalani, D.S. Patel and D.K. Raval , Journal of Molecular Catalysis B: Enzymatic 90, 70– 75(2013) Impact factor: 2.745
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41. Development in Sonogashira coupling: Construction of indole and benzo[b]furan ring systems catalyzed by Pd-Cu and basic ionic liquid [DBU]Ac Jemin R. Avalani, Devji S. Patel and Dipak K. Raval , Prajna, [SPU Research Journal, ISSN 0975-2595],
42. Ionic liquid promoted multi component one pot Hantzsch condensation: A novel and efficient route for the synthesis of polyhydroquinolines V. K. Patel, A.N.Dadhania & D. K. Raval , Prajna, [SPU Research Journal, ISSN 0975-2595],
43. Ionic liquid promoted facile and green synthesis of 1,8-dioxo-octahydroxanthene derivatives under microwave irradiation A.N.Dadhania, V.K.Patel & D.K.Raval , J. Saudi Chemical Soc., in press (2014), accepted manuscript Impact Factor: 2.523

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45. Synthesis, characterization and biological screening of novel 5-imidazopyrazole incorporated fused pyran motifs under microwave irradiation Kalaria Piyush, Satasia Shailesh and D. K. Raval , New J. Chem., 38 (4), 1512 – 1521 (2014) Impact factor: 3.086
46. Catalytic regioselective synthesis of pyrazole based pyrido[2,3-d]pyrimidine-diones and their biological evaluation S. P. Satasia, P. N. Kalaria and D. K. Raval , Organic & Biomolecular Chemistry, 12 (11), 1751 – 1758 (2014) Impact factor: 3.562
47. Study on copolymers synthesized from 2, 3-epoxypropyl- 3-(2-furyl)acrylate –methyl methacrylate and their glass fibre reinforced composites Rakesh Patel, Umesh Tarpada and D. K. Raval , J Polym Eng 34(6), 531–541 (2014) Impact factor: 0.465
48. Synthesis, characterization and pharmacological screening of some novel 5-imidazo pyrazole incorporated polyhydroquinoline derivatives Kalaria Piyush, Satasia Shailesh and D. K. Raval , European Journal of Medicinal Chemistry, 78, 207-216 (2014) Impact factor: 3.447
49. Heteropolyanion-based sulfated Ionic Liquid catalyzed formamides synthesis by grindstone chemistry Satasia Shailesh, Kalaria Piyush and D. K. Raval , Journal of Molecular Catalysis A: Chemical, 391, 41–47 (2014) Impact factor: 3.615
50. Synthesis, identification and in vitro biological evaluation some novel 5-imidazopyrazole incorporated pyrazoline and isoxazoline derivatives Kalaria Piyush, Satasia Shailesh and D. K. Raval , New J. Chem., 38, 2902-2910 (2014) Impact factor: 3.086
51. An efficient approach for the synthesis of spirooxindole derivatives catalyzed by novel sulfated choline based heteropolyanion at room temperature Satasia Shailesh, Kalaria Piyush and D. K. Raval , Tetrahedron, 70, 5763-5767 (2014) Impact factor: 2.641
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55. Design, synthesis and molecular docking of novel bipyrazole based thiazolone scaffold as a new class of antibacterial agents P. N. Kalaria, J. A. Makawana, S. P. Satasia, D. K.

Raval and H. L. Zhu , Medicinal Chemistry Communications, 5, 1555-1562 (2014) Impact factor: 2.495

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57. Green synthesis and pharmacological screening of polyhydroquinoline derivatives bearing a fluorinated 5-aryloxypyrazole nucleus Sharad C. Karad, Vishal B. Purohit, Dipak K. Raval, Piyush N. Kalaria, Jemin R. Avalani, Parth Thakor and Vasudev R. Thakkar , RSC Advances,5, 16000–16009 (2015) Impact factor: 3.84
58. Palladium N-heterocyclic carbene catalyzed regioselective CH halogenation of 1-Aryl-3-methyl- 1H-pyrazol-5 (4H)-ones using N-halosuccinimides (NXS) VB Purohit, SC Karad, KH Patel and DK Raval , Catalysis Science & Technology, 5, 3113-3118 (2015) Impact factor: 5.426
59. Magnetically retrievable magnetite (Fe3O4) immobilized ionic liquid: an efficient catalyst for the preparation of 1-carbamatoalkyl-2-naphthols HN Dadhania, DK Raval and AN Dadhania, Catalysis Science & Technology, 5, 4806 - 4812 (2015) Impact factor: 5.426
60. Palladium N-heterocyclic carbene catalyzed regioselective thiolation of 1-Aryl-3-methyl-1H- pyrazol-5(4H)-ones using aryl thiols VB Purohit, SC Karad, KH Patel and DK Raval, Tetrahedron, 72, 1114-1119 (2016) Impact factor: 2.641
61. Novel morpholinoquinoline nucleus clubbed with pyrazoline scaffolds: Synthesis, antibacterial, antitubercular and antimalarial activities Sharad C. Karad, Vishal B. Purohit, , Parth Thakor, Vasudev R. Thakkar and Dipak K. Raval, European Journal of Medicinal Chemistry, 112, 270-279 (2016) Impact factor: 3.447
62. Design, Synthesis and characterization of fluoro substituted novel pyrazole nucleus clubbed with 1,3,4-oxadiazole scaffolds and their biological applications, RSC Advances, 6, 41532 - 41541 (2016) Impact factor: 3.84

No. of Ph.D student produced: 19

No. of Minor/ Major projects carried out

5 Minor Projects completed

Honors:

- Best Thesis Award, Sardar Patel University-1988
- HariOhm Aashram Best Research Paper Award-1992-93
- Fellow, Gujarat Science Academy
- Life Member, Indian Council Of Chemists
- Life Member, Association of Carbohydrate Chemists and Technologists

Highlights of achievements

- Teaching Organic Chemistry since 1989
- Member of academic bodies in SPU as well as in other universities
- Acted as member on various committees at SPU
- Successfully organized co-curricular and extra-curricular activities in the department every year
- I/C Head, Department of Pharmaceutical Sciences since February 2010
- I/C Dean, Faculty of Pharmaceutical Sciences
- UGC Nominee at Nagpur University, Nagpur for SAP programme
- Delivered invited Talks at National Conferences and Seminars
- Invited and delivered lectures as UGC Visiting Professor
- Organized 3 National Seminars at SPU
- Member of selection committees at various universities and institutions
- Assisted UPSC and GPSC in recruitment procedures
- Reviewer for many journals
- Member of BAPS