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Prof. Anil V. Karnik

Contact

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Educational Qualifications

Educational Qualifications	Discipline	Year	University	Class
B. Sc.	Chemistry	1979	University Mumbai, Mumbai, India	First
M. Sc.	Organic Chemistry	1982	University of Mumbai, Mumbai, India	First
Ph.D	Organic Chemistry	1989	University of Mumbai, Mumbai, India	NA

Position Held

Position Held	Institute
23 rd July 1984 to 19 th June 1986	Lecturer: Sophia College for Women, Mumbai
28 th July 1986 to 17 th February 1988	Lecturer: Institute of Science, Mumbai
18 th February 1988 to 26 th July 1998	Lecturer: Department of Chemistry, University of Mumbai, Mumbai
27 th July 1998 to 26 th July 2006	Reader: Department of Chemistry, University of Mumbai, Mumbai
27 th July 2006 onwards	Professor: Department of Chemistry, University of Mumbai, Mumbai
August 1991 to January 1994	Warden, University Hostel, J. S. Hall, Churchgate, B Road.
1 st November, 2013 onwards	Head, Department of Chemistry, University of Mumbai, Mumbai
1 st January 2016 onward	I/c Director, Garware Institute of Career Education & Development

Awards and Honors

2009 Performance Based Incentive Award [University of Mumbai] India

Elected Fellow of Maharashtra Academy of Sciences, 2017

DST-PURSE Program coordinator

UGC-SAP Program coordinator

DST-FIST Program Coordinator

Membership of Professional Societies

1. Life member of Material Research Society of India
2. Life member of Chemical Research Society of India

Member of Academic Bodies

1. Chairman Board of Studies, University of Mumbai
2. Member of Research & Recognition committee, University of Mumbai
3. Member of Senate, University of Mumbai
4. Member of Academic Council, University of Mumbai
5. Former member of BUTR, University of Mumbai
6. Member of Campus Development Committee, University of Mumbai
7. Member of Research & Recognition committee, Institute of Chemical Technology
8. Member of Board of Studies, M. S. University, Vadodara.
9. UGC nominee for UGC-SAP program of Dept of Chemistry, RTM Nagpur University
10. Worked as Subject expert / Examiner / Paper setter in UPSC, MPSC, SET examination
11. Member of Academic Board of UM-DAE
12. Member of Board of Studies, Somaiya College (Autonomous)

Research Activities

No.	Title of Project	Funding Agency	Grant Received (Rs)	Project Duration
1.	Development of C2 symmetric hetero-helicenes as fluorescent chiral sensor for amines and amino esters	DST	28,42,800/-	2008-2011
2.	Kinetic Resolution of Amines using N-acyl (S)-2-(1-hydroxyethyl)benzimidazole in presence of Lewis acid catalyst	University of Mumbai	25,000/-	2003-2004
3.	Synthesis of new chiral β -keto sulfoxides containing 1,3,4-oxadiazole moiety and asymmetric synthesis of substituted methyl carbinols	University of Mumbai	40,000/-	2000-2001
4.	Consultancy project on the 'Manufacturing process for	INDOFIL Industries Ltd.	9,30,000/-	2016-2017

development of PNDN 052016 I & PNDN 052016 II'			
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Conferences/Academic Activity

Activity	Title	Period	Role
National Conference	National conference on Synthesis and Application of Novel materials	4-5 th , March 2010	Secretary
International Conference	International conference on Supramolecular and Nanomaterials	14-16 th , February 2011.	Secretary
National Conference	UGC-SAP sponsored National conference on Advances in Synthetic and Material chemistry	10-11 th , March-2014	Convener
National Conference	UGC-SAP sponsored National Conference on Advances and Innovation's in Chemical Sciences-2015	10-11 th , February 2015	Convener
International Conference	UGC-SAP sponsored International conference on synthetic and material chemistry	26-28 th , November, 2015	Convener

Supervision of research students

M. Sc. (by research) Degree awarded : 16

Ph. D. Degree awarded : 15

Ph. D. Currently working : 06

Group Members

Ph.D

Sr. No.	Name	Status	Present Position
1.	Sudhir Patil	Degree awarded	Chemical Industry [Research Director]
2.	Sunil Upadhyay	Degree awarded	Post-Doctoral Fellow
3.	Nitin Malviya	Degree awarded	Chemical Industry [Sr. Manager]
4.	Anjali Kulkarni	Degree awarded	Chemical Industry
5.	Suchitra Kamath	Degree awarded	Chemical Industry [Manager]
6.	Nitin Mirgane	Degree awarded	Working as Assistant Professor
7.	Vinay Singh	Degree awarded	Working as Assistant Professor
8.	Anita Pandey	Degree awarded	DST-Women Scientist, IITB
9.	Sandip Kotwal	Degree awarded(2014)	Working as Assistant Professor
10.	Mohammed Hasan	Degree awarded (2015)	Post-Doctoral Fellow
11	Trupti Tawde	Degree awarded (2015)	Working as Assistant Professor
12.	Jai Sapre	Degree awarded (2015)	Chemical Industry
13.	Swapnil Wagh	Degree awarded (2015)	Working as Assistant Professor
14	Suyog Marathe	Degree Awarded (2017)	Chemical Industry
15.	Vaibhav Khose	Thesis Submitted	-
16.	Pawankumar Tiwari	Degree Awarded	Chemical Industry

		(2018)	
17.	Prashant Gawade	Working	-
18.	Ramachandra Thorat	Working	-
19.	Sushil Khot	Working	-
20.	Siddhart Kambale	Working	-
21.	Marina John	Working	-

M. Sc. (by research)

Sr. No.	Name	Status	Present Position
1.	Jagdish Rane	Degree awarded	Chemical Industry
2.	Yasmeen Kadiri	Degree awarded	Academics
3.	Ashwini Khire	Degree awarded	Academics
4.	Subodh Patnekar	Degree awarded	Chemical Industry
5.	Sachin Joshi	Degree awarded	Chemical Industry
6.	Deepak Rane	Degree awarded	Chemical Industry
7.	Vinod Pednekar	Degree awarded	Chemical Industry
8.	Anita Pandey	Degree awarded	DST-Women Scientist
9.	Sunil Upadhyay	Degree awarded	Post Doctorial Study
10.	Anjali Kulkarni	Degree awarded	Chemical Industry
11.	Nitin Malviya	Degree awarded	Chemical Industry
12.	Suyog Marathe	Degree awarded	Chemical Industry
13.	Pawan Tiwari	Degree awarded	Chemical Industry
14.	BhanuSheshadri	Degree awarded	Academics
15.	Rajesh Kamath	Degree awarded	Chemical Industry
16.	Mangesh Prabhu	Degree awarded	Chemical Industry

Research Highlights

Our group focuses on design, synthesis and study of the stereochemical aspect of various classes of organic chiral molecules having potential applications in the broad area of chiral chemistry.

Chiral heterocycles, novel atropisomers, helically chiral molecules, cyclophane derivatives, chiral macrocycles are synthesized for their applications in the field of asymmetric synthesis, non-enzymatic kinetic resolutions, organocatalysis, chiral sensors, molecular recognition, supramolecular chemistry, conformation and configurational analysis. Azolide chemistry has been explored for C-C bond formation reactions and kinetic resolutions. Development of achiral hosts for configurational assignment of chiral guest is being addressed based on ICD.

Publications

1. "Chiral Heterocycle-based receptors for Enantioselective Recognition" Vaibhav N. Khose, Marin John, Victor Borovkov, **Anil V. Karnik**, *Symmetry*, **2018**, *10*, 34; doi:10.3390/sym10020034.
2. "Chiral Benzimidazoles and their applications in stereo-discrimination processes" Vaibhav N. Khose, Marina E. John, Anita D. Pandey and **Anil V. Karnik**, *Tetrahedron: Asymmetry*, **2017**, *28*, 1233-1289.
3. "A convenient methodology for the synthesis of substituted BINOL derivative using Cu-amine complexation method" Suyog Marathe, **Anil V. Karnik**, *Indian Journal of Chemistry B*, **2017**, accepted
4. Design, synthesis, and characterization of novel BINOL-based heterocyclic analogues as potential sensors, Suyog Marathe, **Anil V. Karnik**, *Synthetic Communications*, **2017**, *47*, 1577–1581.
5. Synthesis of 3-arylamino-6-phenyl[1, 2, 4]triazolo[3,4-b][1, 3, 4]thiadiazine derivatives as potential bioactive molecules, Suyog Marathe, **Anil V. Karnik**, *Chemistry of Heterocyclic Compounds*, **2017**, *53(5)*, 604–607.
6. "A sui generis helicene based supramolecular chirogenic system: Enantioselective sensing, solvent control, and application in chiral group transfer reaction" Mohammed

- Hasan, Vaibhav N. Khose, Tadashi Mori, Victor Borovkov, and **Anil V. Karnik**, *ACS Omega*, **2017**, 2, 592-598
7. Synthesis of C_2 -Symmetric Isoxazole-Fused BINOL: An Entry to Sterically Crowded Atropisomeric Systems, Suyog Marathe, **Anil V. Karnik**, *Synthesis* **2016**, 48, A–E.
 8. “Tailor-Made Supramolecular Chirogenic System Based on C_s -Symmetric Rigid Organophosphoric Acid Host and Amino Alcohols: Mechanistic Studies, Bulkiness Effect, and Chirality Sensing”, Mohammed Hasan, Vaibhav N. Khose, Anita D. Pandey, Victor Borovkov, and **Anil V. Karnik**, *Organic Letters*, **2016**, 18, 440-44.
 9. “A Convenient route to Benzimidazole Fused Chiral Heterocyclic Bases”, Swapnil J. Wagh, Trupti S. Tawde, Jai V. Sapre, Vaibhav N. Khose and **Anil V. Karnik**, *Indian Journal of Chemistry B*, **2016**, 55B, 707-7012.
 10. “Reversal of enantioselectivity induced by the achiral part of an organocatalyst in Diels-Alder reaction”, Trupti S. Tawde, Swapnil J. Wagh, Jai V. Sapre, Vaibhav N. Khose, Purav M. Badani and **Anil V. Karnik**, *Tetrahedron: Asymmetry*, **2016**, 27, 130-135.
 11. “Size-Induced Chiral Discrimination Switching by (S)-(-)-2(a-Hydroxyethyl)Benzimidazole-Derived Azacrowns”, Anita D. Pandey, Hasan Mohammed, Raghuvir R. S. Pissurlenkar, and **Anil V. Karnik**, *Chem Plus Chem*, **2015**, 80, 475-479.
 12. “Sterically Congested Chiral 7,8-Dioxa[6]helicene and Its Dihydro Analogues: Synthesis, Regioselective Functionalization, and Unexpected Domino Prins Reaction” Hasan, Mohammed; Pandey, Anita D.; Khose, Vaibhav N.; Mirgane, Nitin A. and **Karnik, Anil V.**, *European Journal of Organic Chemistry*, **2015**, 3702-3712.
 13. “A Convenient Route to Enantiomerically Enriched Furo-Fused BINOL Derivative” Sandeep Kotwal, Anita Pandey, Vaibhav Khose, and **Anil Karnik**, *Indian J Chem., Sec. B*, **2015**, 54B, 940-943.
 14. “New family of fluorogenic azacrown probes with identical cavity size but different electronic environment outside the macrocycle: effects on sensitivity of Cu^{2+} detection” Pandey, Anita D.; Pissurlenkar, Raghuvir R. S.; **Karnik, Anil V.**, *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **2015**, 81(1-2), 251-261.

15. "Chiral benzimidazole-derived mono azacrowns: synthesis and enantiomer recognition studies with chiral amines and their ammonium salts" A. Pandey, H. Mohammed, **Anil V. Karnik**, *Tetrahedron: Asymmetry*, **2013**, 24 (12), 706-712.
16. "Aqueous ethanol: a suitable medium for the diastereoselective Diels-Alder reaction mediated by chiral bases" Nitin A. Mirgane and **Anil V. Karnik**, *Green Chemistry Letters and Reviews*, **2011**, 4, 269-272.
17. "Asymmetric Diels-Alder Reaction Involving Chiral Benzimidazoles as Organocatalysts" Nitin A. mirgane, and **Anil V. Karnik**, *Chirality*, **2011**, 23, 404-407.
18. "Ionic Liquid Promoted Diels-Alder Reaction Between Anthrone and Maleimides", Nitin A. Mirgane, Sandip B. Kotwal and **Anil V. Karnik** *Cent. Eur. J. Chem.*, **2010**, 8, 356-360.
19. "Chiral Ionic Liquid Mediated Diels-Alder Reaction Between Anthrone Enolate and Maleimides", Nitin A. Mirgane, Mohammed Hasan H. Akhtar and **Anil V. Karnik**, *Letters in Org. Chem.*, **2010**, 7, 343-347.
20. "Cascade Enantioselective Synthesis of 3-arylphthalides using Chiral Auxiliary Route", **Anil V. Karnik** and Suchitra S. Kamath, *Synthesis*, **2008**, 12, 1832-1834.
21. "Synthesis and in vitro antibacterial evaluation of tetracyclic-ortho-fused 4Hnaphtho[1',2'-5,6]pyrano[3,4-d](1,2,3)selenodiazole and its derivatives.", **A. V. Karnik**, A. M. Kulkarni, N. J. Malviya and B. L. Jadhav, *European Journal of Medicinal Chemistry*, **2008**, 43, 2615-2617.
22. "Cascade enantioselective synthesis of γ -aryl- γ -butyrolactones with a delayed stereoselective step", **Anil V. Karnik** and Suchitra S. Kamath, *Tetrahedron*, **2008**, 64, 2992-2996.
23. "Enantioselective benzylation of racemic amines using chiral benzimidazolide as benzoylating agent", **Anil V. Karnik** and Suchitra S. Kamath, *Tetrahedron:Asymmetry*, **2008**, 19, 45-49.
24. "Enantioselective Benzylation of α -Amino Esters Using (S)-1-Benzoyl-2-(racetoxyethyl) benzimidazole, a Chiral Benzimidazolide", **Anil V. Karnik** and Suchitra S. Kamath, *J. Org. Chem.*, **2007**, 72, 7435-7438.
25. "Furo-Fused BINOL Based Crown as a Fluorescent Chiral Sensor for Enantioselective Recognition of Phenylethylamine and Ethyl Ester of Valine", Sunil P. Upadhyay,

- Raghuvir R. S. Pissurlenkar, Evans C. Coutinho, and **Anil V. Karnik**, *J. Org. Chem.*, **2007**, *72*, 5709-5714.
26. "Cascade Synthesis of Racemic 3-Arylphthalides", S. T. Patil & **Anil V. Karnik**, *Indian J Chem., Sec. B.*, **2007**, *46B*, 710-712.
 27. "Enantioselective Synthesis of (R) and (S)- [9,9']bi[naphtho(2,1-b)furanyl]-8,8'-diol, a furo-fused BINOL Derivative", Sunil P. Upadhyay and **Anil V. Karnik**, *Tetrahedron Letters*, **2007**, *48*, 317-316.
 28. "[9,9']Bi[naphtho(2,1-b)furanyl]-8,8'-diol, a furo-fused BINOL derivative: synthesis, resolution and determination of absolute configuration", **Anil V. Karnik**, Sunil P. Upadhyay and Manish G. Gangrade, *Tetrahedron: Asymmetry*, **2006**, *17*, 1275-1280.
 29. "Synthesis and in-vitro antibacterial activity of novel heterocyclic derivatives of 18-nor-equilenin" **A. V. Karnik**, N. J. Malviya, A. M. Kulkarni, and B. L. Jadhav, *European Journal of Medicinal Chemistry*, **2006**, *41*, 891-895.
 30. "Synthesis and Antibacterial studies of 6-Aryl-2,2a-dihydronaphthop[2',1-5,6]pyrano[4,3-e][1,2,4]triazolo[3,4-b][1,3,4] thiadiazine and its derivatives", **A. V. Karnik**, N. J. Malviya, A. M. Kulkarni, D. Jaimini and B. L. Jadhav, *Journal of Heterocyclic Chemistry*, **2006**, *43*, 489-493.
 31. "Rapid and Efficient microwave-assisted synthesis of 4-amino-3-mercapto-5-substituted-1,2,4-triazoles", S. S. Joshi and **A. V. Karnik**, *Indian J Chem.*, **2006**, *45B*, 1057-1059.
 32. "Chemoselective synthesis of heterocyclic derivatives of 18-nor-equilenin, 16-substituted-12H-11-oxa-17-thia-cyclopenta[a]phenanthrene and their in-vitro evaluation of antibacterial and antifungal activity", N. J. Malviya, A. M. Kulkarni, D. Jaimini, B. L. Jadhav & **A. V. Karnik**, *Indian J Chem.*, **2006**, *45B*, 1499-1503.
 33. "Synthesis of Tweezers incorporating 2-mercapto-5-aryl-1,3,4-oxadiazoles as heterocyclic subunits"; A. D. Pandey and **A. V. Karnik**, *Indian J. Het. Chem.*, **2005**, *14*, 213-216.
 34. "A Convenient Route to Optically active γ -substituted- γ -lactones" **Anil V. Karnik**, Sudhir T. Patil, Subodh Patnekar and Abha Semwal, *New Journal of Chemistry*, **2004**, *28*, 1420-1422.

35. "Synthesis of new ortho fused tetracyclic-2-substituted-4H-thiazolo[5,4-c]naphtho[1,2-e]pyran and its derivatives", A. M. Kulkarni, N. J. Malviya & **A. V. Karnik**, *Indian J Chem.*, **2004**, *43B*, 839-842.
36. "Group Transfer reactions using N-Aroylbenzotriazoles" **A. V. Karnik** & A. S. KadiriYasmeen, *Indian J. Het. Chem.*, **2004**, *14*, 61-62.
37. "Aluminum Chloride-Mediated Kinetic Resolution of Racemic γ -Substituted- γ -Lactones", Sudhir T. Patil & **Anil V. Karnik**, *Chirality*, **2004**, *16*, 336-338.
38. "Facile synthesis of novel fluorescence active 12H-benzo[e]indolo[3,2-b]benzofuran and its derivatives", **A. V. Karnik** & S. P. Upadhyay, *Indian J Chem.*, **2004**, *43B*, 1345-1346.
39. "Facile Conversion of Acyldithiocarbazine Salts to 1,3,4-Oxadiazole Derivatives Under Microwave Irradiation", Sachin Joshi & **A. V. Karnik**, *Syn. Comm.*, **2002**, *32*, 111-114.
- 40 "Group Transfer Reactions using Benzimidazolides", **A. V. Karnik** & J. P. Rane, *Indian J. Chem.*, **1998**, *37B*, 1191-1193.
41. "Polyphosphoric Acid and Anhydrous Aluminium Chloride catalysed Novel Rearrangements of 1,5-Diaroylcarbohydrazides", **A. V. Karnik** & R. G. Kamath, *Indian J. Chem.*, **1997**, *36B*, 803-804.
42. "Polyphosphoric Acid (PPA) Catalysed Reactions of 1-Acetyl-2-Aroylhydrazines: Formation of 1,3,4-Oxadiazole Derivatives", **A. V. Karnik** & R. G. Kamath, *Indian J. Het. Chem.*, **1996**, *6*, 141-142.
43. "Aroylation of Active Methylene Compounds Using Imidazolides", **A. V. Karnik** & D. M. Rane, *Indian J. Het. Chem.*, **1996**, *6*, 123-126.
44. "Thiocarbazine acids: Interaction of carbonoxysulphide with thiosemicarbazides-Synthesis of β -(thiocarbamyl)thiocarbazinates and 1,3,4-oxadiazole and 1,2,4-triazole derivatives", M. S. Chande, **A. V. Karnik**, A. N. Inamdar & S. D. Damle, *Indian J Chem.*, **1991**, *30B*, 430-432.
45. Thiocarbazine acids Part-III. Synthesis of 1,2,4-Triazole derivatives", M. S. Chande & **A. V. Karnik**, *J Indian Chem. Soc.*, **1990**, *67*, 776-777.

Contributions in symposia, conferences and reports

1. "Synthesis of enantiomerically enriched [7]oxa-helicenoid dialdehyde : Application in fluorescent sensor for enantioselective recognition of trans 1,2-cyclohexyl diamine" Vaibhav N. Khose, **Anil V. Karnik**, National conference on recent developments in chemical science-2018 at Department of Chemistry, University of Mumbai from 8-9th March-2018. (Oral)
2. "Development of Novel Functionalized [8] Oxa helicene" Sushil Khot, **Anil V. Karnik**, National conference on recent developments in chemical science-2018 at Department of Chemistry, University of Mumbai from 8-9th March-2018. (Poster)
3. "Evaluation of Helicenoid Aldehyde(s) as Fluorescent Chemodosimeter for Selective Detection of Cyanide Anion", Marina E. John, **Anil V. Karnik**, National conference on recent developments in chemical science-2018 at Department of Chemistry, University of Mumbai from 8-9th March-2018. (Poster)
4. "Synthesis of Oxa-helical Molecules via Photocyclization Reaction" Bharat S. Choudhari, Sushil Khot, **Anil V. Karnik**, National conference on recent developments in chemical science-2018 at Department of Chemistry, University of Mumbai from 8-9th March-2018. (Poster)
5. "Development of New Heterocycle based Chiral Tweezers: Application in Enantioselective Recognition" Komal A. Shinde, Sushil C.Khot, Ramchandra G.Thorat and **Anil V. Karnik**, National conference on recent developments in chemical science-2018 at Department of Chemistry, University of Mumbai from 8-9th March-2018. (Poster)
6. "Synthesis of [7]Oxa-helicenoid derived Macrocyclic Potential for Chiral Discrimination Processes" Manali G. Thakur, Sushil C.Khot, Ramchandra G. Thorat and **Anil V. Karnik**, National conference on recent developments in chemical science-2018 at Department of Chemistry, University of Mumbai from 8-9th March-2018. (Poster)
7. "Development of New Class of Furo Fused BINOL Derived Cyclophanes" Zarrin M.Warekar, ushil C.Khot, Ramchandra G. Thorat **Anil V. Karnik**, National conference on recent developments in chemical science-2018 at Department of Chemistry, University of Mumbai from 8-9th March-2018. (Poster)

8. "Cs- Symmetric Rigid Organophosphoric Acid Host for Configuration Determination of Chiral 1, 2-Amino Alcohols" Vaibhav N. Khose, and Anil V. Karnik 5th Bharatiya Vigyan Sammelan and EXPO-2017, at Fergusson college, Pune from 11-14th May 2017.
9. "Development of New Helicenoid based Chiral Probes: Application in Chiral Molecular Recognition", Vaibhav N. Khose, **Anil V. Karnik**, 28th Research scholar meet (RSM-2016) at Thakur college of science and commerce Mumbai, from 12-13th Feb-2016. (Oral)
10. "Novel Approach for Synthesis of Crowded Hepta-Helicenes Involving Benzyne", Prashant Mahadu Gawade, **Anil V. Karnik**, UGC-SAP sponsored International conference on synthetic and material chemistry at Department of Chemistry, University of Mumbai from 26 -28th November-2015. (Oral)
11. "Development of New Helicenoid based Chiral Probes: Application in Chiral Molecular Recognition", Vaibhav N. Khose, **Anil V. Karnik**, UGC-SAP sponsored International conference on synthetic and material chemistry at Department of Chemistry, University of Mumbai from 26-28th November-2015. (poster)
12. "A Convenient Route for Synthesis of Fused Heterocycles with Bridge-head Nitrogen". Pawankumar R. Tiwari, **A. V. Karnik**, UGC-SAP sponsored International conference on synthetic and material chemistry at Department of Chemistry, University of Mumbai from 26-28th November-2015. (poster)
13. "Heterocyclic BINOL-based Tweezers as Potential Cation Sensors", Suyog Marathe and **Anil V. Karnik**, UGC-SAP sponsored International conference on synthetic and material chemistry at Department of Chemistry, University of Mumbai from 26-28th November-2015. (poster)
14. Design, Synthesis and Characterization of chiral fused heterocycles. Pawankumar Tiwari and **Anil V. Karnik**, UGC-SAP sponsored National Conference on Advances and Innovations in Chemical Sciences-2015 at Department of Chemistry, University of Mumbai from 10-11th Feb-2015. (poster)
15. "Design and Synthesis of Novel Atropisomers" Suyog Marathe and **Anil V. Karnik**, UGC-SAP sponsored National Conference on Advances and Innovations in Chemical Sciences-2015 at Department of Chemistry, University of Mumbai from 10-11th Feb-2015. (oral)

16. Fluorescence Active BINOL Derived Dihydroxy Tongs: Potential Cation Sensors. Sweta Nair, Vaibhav N. Khose, **Anil V. Karnik**, UGC-SAP sponsored National Conference on Advances and Innovations in Chemical Sciences-2015 at Department of Chemistry, University of Mumbai from 10-11th Feb-2015. (poster)
17. Development of New Heterocycle Based Chiral Tweezers. Vaibhav N. Khose, **Anil V. Karnik**, Nation symposium on Emerging trends in Chirality, Medicinal Chemistry and perfumery at KETs V.G. Vaze College, Mulund Mumbai on 4th February, 2015. (poster)
18. Synthesis of New Hetero-Helicenes. Prashant Gawade and **Anil V. Karnik**, 10th international symposium on Bio-organic chemistry at IISER, Pune from 10-15th January 2015. (poster)
19. New route for the synthesis of [5]-Aza Helicene Derivatives and its fluorescence study. Vaibhav N. Khose, **Anil V. Karnik**, 102nd Indian Science congress held at University of Mumbai, Mumbai from 3-7th January, 2015. (poster)
20. Development of functionalized Helicenoid aldehydes: Application as florescent chemodosimeter for selective detection of cyanide anion. Vaibhav N. Khose, **Anil V. Karnik**, International symposium on New Horizons in Chemistry at Department of Chemistry, Vivekananda College of arts, Science and commerce from 8-9th December, 2014. (oral)
21. Development of New Enantiomerically Enriched Functionalized Heleceenoids: Application in Chiral Molecular Recognition. Vaibhav N. Khose, **Anil V. Karnik**, National symposium on transcending frontiers in organic chemistry-2014 held at CSIR-National Institute for Interdisciplinary Science and Technology, Trivandrum Kerala from 9-11th, October, 2014.(poster)
22. Synthesis of enantiomerically enriched morpholine 4, 3-(Benzimidazoles). Pawankumar Tiwari and **Anil V. Karnik**, CONCHEM-2014 held at D.G. Ruparel College, Matunga Mumbai on 12th, September, 2014. (oral)
23. Development of the new enantiomerically enriched functionalized Helicenoids. Vaibhav N. Khose, **Anil V. Karnik**, UGC-SAP sponsored National conference on Advances in Synthetic and Material chemistry at Department of Chemistry, University of Mumbai from 10-11th March-2014.(oral)

24. Enantioselective Diels-Alder reactions using chiral heterocycle based chiral tweezers. Truptitawade and **Anil V. Karnik**, National Conference on chirality (**NCC-2013**) at M.S. University, Baroda, Gujarat from 7-8th December, 2013. (oral)
25. Development of chiral benzimidazole based phosphoric acid for asymmetric synthesis of dihydroquinazolinones. Swapnil J. Wagh and **Anil V. Karnik**, National Conference on chirality (**NCC-2013**) at M.S. University, Baroda, Gujarat from 7-8th, December, 2013. (poster)
26. Convenient route to Benzimidazole fused chiral heterocyclic bases and its partial resolution. Swapnil J. Wagh and **Anil V. Karnik**, UGC Sponsored national conference on Specialized aspects of organic chemistry held at Department of Chemistry, KarmaverBhauraoPatil College, Vashi Navi Mumbai from 18-19th, December, 2012 (poster)
27. Diastereoselective Diels-Alder Reaction Catalyzed by Ionic Liquid. Nitin A. Mirgane and **Anil V. Karnik**, 2nd International Indo-German Symposium on title of Green Chemistry and Catalysis for Sustainable Development organized by Leibniz Institute for Catalysis University of Rostock (LIKAT Rostock) Germany and ICT, Matunga, Mumbai 29-31th, October, 2012. (poster)
28. Synthesis and functionalization of hetero-helicene. Mohammed Hasan and **Anil V. Karnik**, 24th Research Scholars' Meet (RSM – 2012) held at Department of Chemistry, SIES College, Mumbai from 17-18th, February, 2012. (Oral)
29. Diastereoselective Diels-Alder reaction mediated by ionic liquid. Nitin A. Mirgane and **Anil V. Karnik**, National Conference on emerging Trends in Life and Material Sciences: Mission mankind (UGC sponsored) held at KET's Vaze College, Mumbai on 25th, January, 2012. (poster)
30. Diastereoselective synthesis of new class of chiral benzimidazole incorporated mono-18-azacrown-6 systems. Anita D. Pandey and **A. V. Karnik**, National chiral benzimidazole incorporated mono-18-azacrown-6 systems." National Conference on Chirality NCC-2011, M.S. University of Baroda, Vadodra, Dec-2011. (poster)
31. Synthesis of New Class of Benzimidazole Based Fused Chiral Amines. Swapnil J. Wagh and **Anil V. Karnik**, National Conference on Chirality NCC-2011, M.S. University of Baroda, Vadodra, Dec-2011. (poster)

32. "Design and synthesis of chiral benzimidazole based monoaza-crowns as chirality sensing systems. Anita D. Pandey and **A. V. Karnik**, Western India Research Scholar's Meet WIRSM-2011, M. S. University of Baroda, Vadodra, Sep-2011. (oral)
33. Synthesis and functionalization of hetero-helicene. Mohammed Hasan and **Anil V. Karnik**, Western India Research Scholar's Meet WIRSM-2011, M. S. University of Baroda, Vadodra, Sep-2011. (oral)
34. Chiral Molecular Recognition by sterically crowded chiral esters. Jai Sapre and **Anil V. Karnik**, International conference on Supramolecular and Nanomaterials held by Department of Chemistry in association with center for Nanoscience and Nanotechnology, University of Mumbai from 14-16th, February, 2011. (oral)
35. Development of chiral heterocycle-based aza-crowns for chiral molecular recognition. Anita D. Pandey and **Anil V. Karnik**, National Conference on Synthesis & Applications of Novel Materials NCSANM-2010, University of Mumbai, Mumbai, March-2010. (oral)
36. Enantioselective Diels Alder Reaction using Chiral Bases and Chiral ionic liquid. Nitin A. Mirgane and **Anil V. Karnik**, National seminar on Material Science held at Department of Chemistry, University of Mumbai, Mumbai from 20-21th, February, 2009. (oral)
37. Chiral Base catalysed Enantioselective Diels Alder Reactions. Nitin A. Mirgane and **Anil V. Karnik**, 20th Research Scholar's Meet-2008 (RSM-2008), Indian Chemical Society (Mumbai Branch) and Department of Chemistry, V. G. Vaze college of Commerce, Arts & Science Mithagar Road, Mulund (E) Mumbai, on February-2008. (oral)

Invited lectures, Chairperson at various Universities & Research Institutes

1. Chairperson
Research Scholar Meet (RSM-2015) held at Sathaye college, Mumbai 20-21th, February, 2015.
2. Invited Lecture: Novel molecules for chiral discrimination process. **Anil V. Karnik**, Nation symposium on Emerging trends in Chirality, Medicinal Chemistry and perfumery at KETs V.G. Vaze College, Mulund Mumbai on 4th February, 2015.(IT)
3. Chairperson

Flow chemistry India 2015 held at Ramada Powai hotel and convention Centre, Mumbai by select Biosciences India private limited from 22-23rd, January, 2015.

4. Chairperson

National conference on recent developments in synthetic and material chemistry held at RatnamColleg, Mumbai from 16-17th, January, 2015.

5. Chairperson

DAE-BRNS 5th Interdisciplinary Symposium on materials chemistry (ISMC-2014) held at Chemistry3 Division, Bhabha Atomic Research Centre, Mumbai on 11th, December, 2014.

6. Invited Lecture: “New Systems for Chiral Molecular Recognition” **Anil V. Karnik**, International symposium on New Horizons in Chemistry at Department of Chemistry, Vivekananda College of arts, Science and commerce from 8-9th December, 2014. (IT)

7. Chairperson

International conference on Chemistry cutting edge: Nano, Green and Beyond held at St. Xavier’s College, Mumbai from 6-7th, January, 2014.

8. Invited talk: **Anil V. Karnik**, UGC Sponsored national conference on Specialized aspects of organic chemistry held at Department of Chemistry, Karmaver BhauraoPatil College, Vashi Navi Mumbai from 18-19th, December, 2012. (IT)

9. Chairperson: **Anil V. Karnik**, National conference on Photochemistry: Recent trends and challenges held at B.N. Bandodkar College of Science, Thane in 15th, December, 2012. (IT)

10. Resource person

One day workshop on Revised syllabus of organic Chemistry in M.Sc part-I held at SIES College, Sion Mumbai on 3th, July, 2012.

11. Resource person

One day workshop on Revised syllabus, credit and grading system for M.Sc on 30th, June, 2012.

12. Resource person

One day workshop on Revised syllabus of chemistry for third year B.Sc jointly organized by board of studies in chemistry, University of Mumbai, and Department of Chemistry, S.P.K. Mahavidyalaya, Sawantwadi, 10th, July, 2010