

# Details of Research Publications during the Period April 2011- March 2012

## An Overview

### Articles/Papers published in Academic Journals

Sr. No.	Department	Number
1.	Biosciences	43
2.	Chemistry	55
3.	Computer Science	52
4.	Electronics	03
5.	Materials Science	12
6.	Mathematics	10
7.	Physics	41
	<b>Total</b>	<b>216</b>

### Books/Chapters in Book

Sr. No.	Department	Books	Chapters in Book
1.	Biosciences	-	02
2.	Computer Science	-	01
3.	Mathematics	02	-
4.	Physics	02	-

## Papers published in Academic Journals during April 2011- March 2012 Basic Science Departments

### Department of Biosciences

1. Parmar A., Singh N. K., Kaushal A., Sonawala S. and Madamwar D. Purification, characterization and comparison of phycoerythrins from three different marine cyanobacterial cultures. *Bio resource Technology*, 102 (2), 1795-1802 (2011).
2. Dandavate V., Keharia H. and Madamwar D. Ester synthesis using *Candida rugosa* lipase immobilized on magnetic nanoparticles. *Biocatalysis and Biotransformation*, 29 (2), 37-45 (2011).
3. Shah V., Jain K., Desai C. and Madamwar D. Metagenomics and integrative ‘-omics’ technologies in microbial bioremediation. *Metagenomics: Current Innovations and Future Trends*, Chapter 12, 211-240 (2012).
4. Acharya B. K., Pathak H., Mohana S., Shouche Y., Singh V. and Madamwar D. Kinetic modeling and microbial community assessment of anaerobic biphasic fixed film bioreactor treating distillery spent wash. *Water Research*, 45, 4248-4259 (2011).
5. Parmar A., Singh N. K., Kaushal A. and Madamwar D. Characterization of an intact phycoerythrin and its cleaved 14kDa functional subunit from marine cyanobacterium *Phormidium* sp. A27DM. *Process Biochemistry*, 46, 1793-1799 (2011).
6. Parmar A., Singh N. K., Pandey A., Gnansounou E. and Madamwar D. Cyanobacteria and microalgae: A positive prospect for biofuels. *Bioresource Technology*, 102, 10163-10172 (2011).
7. Chapla D., Patel H., Singh A., Madamwar D and Shah A. Production, purification and properties of a cellulose-free thermostable endoxylanase from newly isolated *Panibacillus* sp. ASCD2. *Annals of Microbiology*, 62, 825-834 (2012).
8. S. Venkata Mohan, P. suresh Babu, K. Naresh, G. Velvizhi and Madamwar D. Acid azo dye remediation in anoxic-aerobic-anoxic microenvironment under period discontinuous batch operation: Bio- electro kinetics and microbial inventory. *Bioresource Technology*, 119, 362-372 (2012).
9. Rao K. S., Kim J. K. and Kim Y. S., Early changes in the radial walls of storied fusiform cambial cells during fiber differentiation. *IAWA*, 32, 333-340 (2011).
10. Rajput K. S. and Rao K. S. Development of vascular cambium in the petiole of *Terminalia catapa* L. (Combretaceae). *Phyton*, 51, 289-297 (2011).
11. Prashant S., M. S. Sunitha, Pramod S., Rao K. S., Rawal S. K., and Kavi Kishor P. B. Down-regulation of *Leucaena leucocephala* cinnamoyl CoA reductase (LICCR) gene induces significant changes in phenotype, soluble phenolic pools and lignin in transgenic tobacco. *Plant Cell Reports*, 30, 2215-2231 (2011)
12. Sirisha V.L., Ranadheer Kumar D., Prashant S., Pramod S., Jalaja N., Rao M. P., Rao N. S., Mishra P., Rao K. S., Khan B. M. and Kavi Kishor P. B. Cloning, characterization and impact of up- and down-regulating *Subabul* cinnamyl alcohol dehydrogenase (CAD) gene on plant growth and lignin profiles in transgenic tobacco. *Plant Growth Regulation*, 66, 239-253 (2012).
13. Vasant R. A. and Narasimhacharya A. V. R. L. Amelioration of fluoride induced oxidative stress by *Mangifera indica* L. fruit. *Spatula DD*, 1 (4), 181-188 (2011).

14. Vasant R. A. and Narasimhacharya A. V. R. L. Antihyperglycemic and antihyperlipemic effects of *Mangifera indica* L. in fluoride induced toxicity. *Pharmacologyonline*, 3, 265-274 (2011).
15. Oza V., Parmar P., Patel P., Singh R., Trivedi U. and Subramanian R. B. Homology modeling of Plant L-asparaginase; Characterization of its ligand binding efficiency. *Journal of Advanced Bioinformatics Applications and Research*, 2(1), 100-107 (2011).
16. Bariya H. S., Thakkar V. R., Thakkar A. N. and Subramanian R. B. Induction of systemic resistance in different varieties of *Solanum tuberosum*, by pure and crude elicitor treatment. *Indian Journal of Experimental Biology*, 49, 151-162 (2011)
17. Jha Y. S., Subramanian R. B. and Patel S. Endophytic Bacteria Induced Enzymes against *M. grisea* in *O. sativa* under Biotic Stress. *African journal of basic and applied sciences*, 3(4), 136-146 (2011).
18. Patel S., Subramanian R. B. and Jha Y. S. A simple and rapid method for isolation of Alternaric acid from *Alternaria solani*. *Current trends in Biotechnology and Pharmacy*, 5 (2) (2011).
19. Parmar P and Subramanian R. B. PCR based method for testing *Fusarium* wilt resistance of tomato. *African journal of basic and applied sciences*, 3(5), 219-222 (2011).
20. Jha Y. S., Subramanian R. B. and Patel S. Combination of endophytic and rhizospheric plant growth promoting rhizobacteria in *Oryza sativa* shows higher accumulation of osmoprotectants against saline stress. *Acta physiologiae plantarum*, 33(3), 797-802 (2011).
21. Dave B., sudhir A., Pansuriya M., Raykundaliya D., Subramanian R. B. Utilization of *Jatropha* deoiled seed cake for production of cellulases under solid state fermentation. *Bioprocess and Biosystems engineering*, 35, 1343-1353 (2012).
22. Parmar P., Patel M., Dave B., Subramanian R.B. and Bae H. J. Isolation, cloning and expression of novel metallothionine type II protein from *Colocassia esculentum*. *Universal journal of medicine and dentistry*, 1(3), 37-45 (2012).
23. Bharucha U. D., Prajapati V. S., Patel K. C., Trivedi U. B. Catecholate type of siderophore production by *Enterobacter* sp. UB4 isolated from rhizospheric soil of alfalfa plant. *Journal of cell and tissue research*, 11 (3), 2967-2971 (2011).
24. Patel P. R., Gol N. B., Tadapaneni V. Ramana Rao. Physiochemical changes in sunberry (*Physalis minima* L.) fruit during growth and ripening,, *Fruits*, Vol.66 : 37-46 (2011).
25. Patel P. R. and Rao T. V. R. Biochemical changes in relation to growth and ripening of Indian cherry (*Cordia dichotoma* Forst. F.): an underutilized fruit. *International Journal of Fruit Science*, 11, 1-11 (2011).
26. Gol N. B. and Rao T. V. R. Banana fruit ripening as influenced by edible coatings. *International Journal of Fruit Science*, 11 (2), 119-135 (2011).
27. Rao T. V. R., Gol N. B. and Shah K. K. Effect of postharvest treatments and storage temperatures on the quality and shelf life of sweet pepper (*Capsicum annum* L.). *Scientia Horticulturae*, 132, 18-26 (2011).
28. Patel P. R. and Rao T. V. R. Effect of maturity indices of *Carissa carandus* fruit on its antibacterial activity. *Der Pharmacia Lettre*, 3(6), 31-35 (2011).
29. Patel P. R. and Rao T. V. R. Antibacterial activity of Indian cherry during its growth and ripening. *International Journal of Applied Biology and Pharmaceutical Technology*, 2 (4), 172-177 (2011).

30. B. Kavita, Limbachiya J & Keharia H. Hexavalent chromium sorption by biomass of chromium tolerant *Pythium* sp. *Journal of Basic Microbiology*, 51, 173-182 (2011).
31. Bose A., B. Kavita & Keharia H. The suitability of *Jatropha* seed press cake as a biosorbent for removal of hexavalent chromium from aqueous solutions. *Bioremediation Journal*, 15, 218-229 (2011).
32. Dixit R. J., Patel T. J., Vanparia S. F., Kunjadiya A. P., Keharia H. & Dixit B. DNA-Binding interaction studies on microwave assisted synthesized sulfonamide substituted 8-Hydroxyquinoline derivatives. *Scientia Pharmaceutica*, 79, 293-308 (2011).
33. Chapla D., Patel H., Singh A., Madamwar D. and Shah A. Production, Purification and properties of cellulase-free thermostable endoxylanase from newly isolated *Paenibacillus* sp. ASCD2. *Annals of Microbiology*, DOI 10.1007/s13213-011-0323-5 (2011).
34. Chapla D., Pandit P. and Shah A. Production of xylooligosaccharides from corncob xylan by fungal xylanase and their utilization by probiotics. *Bioresource Technology*, 115, 215–221 (2011).
35. Chapla D., Patel H., Madamwar D. and Shah A. Assessment of a Thermostable Xylanase from *Paenibacillus* sp. ASCD2 for Application in Prebleaching of Eucalyptus Kraft Pulp. *Waste and Biomass Valorization*, DOI 10.1007/s12649-012-9112-z (2012).
36. Bharucha U. D., Prajapati V. S., Patel K. C. and Trivedi U. B. Catechol Type of Siderophore Production by *Enterobacter* Sp. UB4 Isolated from the Rhizospheric Soil of Alfaalfa Plant. *Journal of Cell and tissue Research*, 11, 2967-2971 (2011).
37. Bhavard P. B., Mohan J. S. S., Vasant R. A., Narasimhacharya A. V. R. L. Antihyperlipaemic and antioxidant effects of aqueous and methanolic leaf extracts of *Schweinfurthia papilionacea* A. Br. in streptozotocin induced diabetes. *Pharmacologyonline*, 2, 312 -321 (2011).
38. Bhavard P. B., Nayak A. R., Patel N. K. and Mohan J. S. S. Screening of root extracts of some Indian medicinal plants for their antibacterial activity. *Prajna*, 19, 14-18 (2011).
39. Sood P.P., Chiragini H.M. and Kalia K. Antioxidative effect of bamboo leaves extract and DL- $\alpha$ - Lipoic acid alone or as combined therapy on lead induced nephritic and neuronal oxidative impairment. *Journal of Cell and Tissue Research*, 11, 2471-2478 (2011).
40. Pavani K. V., Kalia K., Gayathamma K. Influence of manganese on iron accumulation by *Bacillus circulans*. *Int J Eng scien Tech*, 3, 2530-36 (2011).
41. Patel H. V., Mannari J. & Kalia K. Angiotensin converting enzyme (ACE) gene polymorphism increases the susceptibility of diabetic nephropathy in Western Indian Type 2 diabetic patients. *International Journal of Diabetes in Developing Countries*, 31 (4), 223-228 (2012).
42. Mohan S., Kalia K., Mannari J. Diabetic Nephropathy and Associated Risk Factors for Renal Deterioration. *International Journal of Diabetes in Developing Countries*, 32, 52-59 (2012).
43. Mohan S., Kalia K., Mannari J. Association Between Urinary IgG and Relative Risk for Factors Affecting Proteinuria in Type 2 Diabetic Patients. *Ind J Clin Biochem*, 27 (4), 333-339 (Online publish).

## Department of Chemistry

44. Paresh N. Patel, Khyati D. Patel, Hasmukh S. Patel, Synthesis and biological study of novel 5-{{4-(6,7-dihydrothieno-[3,2-c]pyridin-5(4H)-ylsulfonyl)phenylamino)-methyl}quinolin-8-ol and its metal complexes, **Chin. Chem. Lett.**, 22, 1297–1300, **2011. (I. F.- 0.599)**
45. Khyati D. Patel and Hasmukh S. Patel, Antimicrobial, spectral and thermal aspects of some novel co-ordination polymers-based on 8-hydroxy quinoline, **Elixir Appl. Chem.**, 41, 5693-5698, **2011. (I. F.- N/A)**
46. Visha P. Modi, Paresh N. Patel, Hasmukh S. Patel, Studies on synthesis, characterization and solvatochromic effect of novel tris(heteroaryl)bisazo dyes for dyeing polyester fabric, **Elixir Org. Chem.**, 44, 7192-7201, **2012. (I.F- N/A)**
47. Paresh N. Patel, Darshana J. Patel and Hasmukh S. Patel, Synthesis, spectroscopic, thermal and biological aspects of drug-based copper(II) complexes, **Appl. Organomet. Chem.**, 25, 454–463 **2011. (I. F.- 2.062)**
48. Patel Y. S. and Patel H. S., Studies on novel co-ordination polymers based on 2,5-bis(4-chlorophenylcarbamoyl)terephthalic acid and divalent transition metal ions, **Der Chemica Sinica**, , 2, 58-67, **2011. (I. F.-N/A)**
49. Patel Y. S. and Patel H. S., Co-ordination polymers derived from pyromellitic diamic acid: synthetic, spectral, magnetic, thermal and biological aspects, **Elixir Appl. Chem.**, 44, 7238- 7241, **2012. (I.F- N/A)**
50. Dinker I. Brahmhatt, Niraj H. Patel, Anil K. Patel, Mehul A. Patel and Varun G. Patel, Synthesis and antimicrobial activity of some 7-aryl-5,6-dihydro-14-aza-[1]benzopyrano[3,4-b]phenanthrene-8H-ones, **J. Heterocycl. Chem.**, 48(4) 840-844, **2011. (I. F.-0.962)**
51. Nandhibatla V. Sastry, Nilesh M. Vaghela, Pradip M. Macwan, Saurabh S. Soni, Vinod K. Aswal, Alain Gibaud, Aggregation behavior of pyridinium based ionic liquids in water – surface tension, <sup>1</sup>H NMR chemical shifts, SANS and SAXS measurements, **J. Colloid Interf. Sci.**, 371, 52 – 61, **2012. (I. F.-3.223)**
52. N. V. Sastry, P. H. Valand, P. M. Macwan, Effect of hydrophilic additives on volumetric and Viscosity properties of amino acids in aqueous solutions at T (283 to 333.15) K, **J. Chem. Thermodyn.**, 49, 14 -23, **2012. (I. F.-2.491)**
53. Sanjay H. Punjabi, Nandhibatla V. Sastry, Vinod K. Aswal and Prem S. Goyal, Effect of surfactants on association characteristics of diblock and triblock copolymers of ethylene oxide and butylene oxide in aqueous solutions: dilute solution phase diagrams, SANS and viscosity measurements at different temperatures, **Int. J. Polym. Sci.**, 2011, 1 – 13, **2011. (I. F.- 2.62)**
54. D. Thummar, N. V. Sastry, G. Verma, P. A. Hassan, Aqueous block copolymer surfactant mixtures - surface tension, DLS and viscosity measurements and their utility in solubilization of hydrophobic drug and its controlled release, **Colloid. Surface. A**, 386, 54 – 64, **2011. (I. F.- 2.130)**
55. S. S. Soni, S. H. Punjabi, N. V. Sastry, Effect of electrolyte additives on micellization and clouding behavior of silicone surfactant in aqueous solutions, **Colloid. Surface. A**, 377, 205–211, **2011. (I. F.- 2.130)**
56. N. V. Sastry, S. H. Punjabi, V. K. Aswal and P. S. Goyal, Small angle neutron scattering and viscosity measurements on silicone-, ionic and nonionic surfactant mixed systems in aqueous solutions, **J. Disper. Sci. Technol.**, 33(2), 245-253, **2012. (I. F.- 0.628)**
57. Nandhibatla V. Sastry, Pinakin H. Valand and Pradip M. Macwan Densities, Partial molar volumes at infinite dilution, side chain partial molar volumes and transfer volumes of dipeptides in sucrose and 2,3- butanediol aqueous solutions at t = (283.15 to 333.15) K, **J. Chem. Eng. Data**, 56, 627 – 637, **2011. (I. F.- 2.089)**
58. Nandhibatla V. Sastry, Sunil R. Patel, and Saurabh S. Soni, Densities, speeds of sound, excess molar volumes, and excess isentropi compressibilities at T = (298.15 and 308.15) K

- for methyl methacrylate + 1-alkanols (1-butanol, 1-pentanol, 1-heptanol)) + cyclohexane, + benzene, + toluene, + p-xylene, and ethylbenzene, **J. Chem. Eng. Data**, 56, 142 – 152, **2011. (I. F.- 2.087)**
59. Nilesh M. Vaghela, Nandhibatla V. Sastry and Vinod K. Aswal, Effect of additives on the surface active and morphological features of 1-octyl-3- methylimidazolium halide aggregates in aqueous media, **Colloid. Surface. A**, 373, 101–109, **2011. (I. F.- 2.130)**
  60. Nilesh M. Vaghela, Nandhibatla V. Sastry and Vinod K. Aswal, Surface active and aggregation behavior of methylimidazolium based ionic liquids of type  $[C_n\text{mim}][X]$ ,  $n = 4,6,8$  and  $[X] = \text{Cl}^-, \text{Br}^-$  and  $\text{I}^-$  in water, **Colloids and Polymer Science**, 289, 309 –322, **2011. (I. F.- 2.443)**
  61. Mohan N. Patel, Deepen S. Gandhi, Pradhuman A. Parmar, Synthesis, biological aspects and SOD mimic activity of square pyramidal copper(II) complexes with the 3rd generation quinolone drug sparfloxacin and phenanthroline derivatives, **Inorg. Chem. Comm.**, 14, 128-132, **2011. (I. F.- 1.974)**
  62. Mohan N. Patel, Sanjay H. Patel, Pramod B. Pansuriya, DNA binding and cleavage by dinuclear nickel (II) complexes with neutral bidentate ligands and ciprofloxacin, **Med. Chem. Res.**, 20, 1371–1384, **2011. (I. F.- 1.058)**
  63. Mohan N. Patel, Promise A. Dosi, Bhupesh S. Bhatt, Vasuev R. Thakkar Synthesis, characterization, antibacterial activity, SOD mimic and interaction with DNA of drug based copper(II) complexes **Spectrochim. Acta A**, 78, 763–770, **2011. (I. F.- 1.77)**
  64. Mohan Patel, Deepen Gandhi and Pradhuman Parmar, Synthesis, characterization, antimicrobial activity, SOD mimic activity and DNA interaction behavior of copper(II) complexes with pefloxacin and phenanthroline derivatives, **Appl. Organomet. Chem.**, 25, 348–355, **2011. (I. F.- 2.062)**
  65. Mohan Patel, Deepen Gandhi, Pradhuman Parmar, Antibacterial, nuclease and SOD mimic behavior of copper(II) complexes of norfloxacin and phenanthrolines, **J. Coord. Chem.**, 64 (7), 1276-1288, **2011. (I. F.- 1.932)**
  66. Mohan N. Patel, Pradhuman A. Parmar, Deepen S. Gandhi, Synthesis, characterization and DNA binding and cleavage properties of ruthenium(II) complexes with various polypyridyls, **J. Enzym. Inhib. Med. Chem.**, 26 (5), 734–741, **2011. (I. F.- 1.630)**
  67. Mohan N. Patel, Deepen S. Gandhi, Pradhuman A. Parmar, Effect of substituent of terpyridines on the DNA–interaction of polypyridyl ruthenium(II) complexes, **Spectrochim. Acta A**, 84, 243– 248, **2011. (I. F.- 1.77)**
  68. Mohan N. Patel, Promise A. Dosi, Bhupesh S. Bhatt, DNA interaction, free radical scavenging and in vitro-antibacterial activity of drug-based copper(II) complexes, **Appl. Organomet. Chem.**, 25(9), 653–660, **2011. (I. F.- 2.062)**
  69. Mohan N. Patel, Promise A. Dosi, Bhupesh S. Bhatt, Antibacterial and superoxide dismutase activity as Well as DNA interactions of ciprofloxacin-based ternary copper(II) phenanthroline complexes, **Z. Anorg. Allg. Chem.** (Journal of Inorganic and General Chemistry), 637, 1602–1611, **2011. (I. F.- 1.247)**
  70. Mohan N. Patel, Bhupesh S. Bhatt, Promise A. Dosi, Thermal, spectral and thermodynamic studies for evaluation of calf thymus DNA interaction activity of some copper(II) complexes, **J. Therm. Anal. Calorim.**, 107 (01), 55–64, **2012. (I. F.- 1.757)**
  71. Mohan N. Patel, Bhupesh S. Bhatt, Promise A. Dosi, Spectroscopic study of DNA hydrolysis, DNA intercalative and electrostatic interaction activity exerted by drug based coordination compounds, **Z. Anorg. Allg. Chem.** (Journal of Inorganic and General Chemistry), 638(01), 152-162, **2012. (I. F.- 1.247)**
  72. Mohan N. Patel, Deepen S. Gandhi, Pradhuman A. Parmar, DNA interacting and in–vitro antibacterial studies of fluoroquinolone based platinum(II) complexes, **Inorg. Chem. Comm.**, 15, 248–251, **2012. (I. F.-1.974)**

73. Mohan N. Patel, Promise A. Dosi, Bhupesh S. Bhatt, Nucleic acid interaction and antibacterial behaviors of a ternary palladium(II) complexes, **Spectrochim. Acta Part A**, 86, 508–514, **2012. (I. F.- 1.77)**
74. Mohan N. Patel, Hardik N. Joshi, Chintan R. Patel, DNA-interaction, in vitro antimicrobial and SOD like activity of copper(II) complexes with norfloxacin and terpyridines, **J. Organomet. Chem.**, 701, 8-16, **2012. (I.F-2.062 )**
75. M. N. Patel, B. S. Bhatt, D. S. Gandhi, P. A. Dosi, P. A. Parmar, Spectrophotometric determination of ciprofloxacin by ion pair formation , **J. Anal. Chem.**, 67(5), 1-6, **2012. (I. F.- 0.599)**
76. H. G. Kathrotiya, N. A. Patel, R. G. Patel, M. P. Patel, An efficient synthesis of 3'-quinolinyl substituted imidazole-5-one derivatives catalyzed by zeolite and their antimicrobial activity, **Chin. Chem. Lett.**, 23, 273, **2012. (I. F.- 0.599)**
77. Y. N. Patel, M. P. Patel, Novel cationic poly[AAm/NVP/DAPB] hydrogels for removal of some textile anionic dyes from aqueous solution, **J. Macromol. Sci., Pure Appl. Chem.**, 49, 1-12, **2012. (I. F.- 0.790)**
78. J. A. Makawana, D. C. Mungra, M. P. Patel, R. G. Patel, Microwave assisted synthesis and antimicrobial evaluation of new fused pyran derivatives bearing 2-morpholinoquinoline nucleus, **Bioorg. Med. Chem. Lett.**, 21, 6166-6169, **2011. (I. F.- 2.978)**
79. J. A. Makawana, M. P. Patel, R. G. Patel, Synthesis and in vitro antimicrobial activity of N-arylquinoline derivatives bearing 2-morpholinoquinoline moiety, **Chin. Chem. Lett.**, 23, 427-430, **2012. (I. F.- 0.599)**
80. P. M. Shah, M. P. Patel, Zinc(II) chloride catalysed one pot synthesis of some new 4-thiazolidinone derivatives as biologically potent agent, **Indian J. Chem., Sect B**, 50, 310-314, **2011. (I. F.- 0.562)**
81. N. K. Shah, N. M. Shah, M. P. Patel, R. G. Patel, Design, synthesis and antimicrobial activity of new Biquinoline derivatives, **J. Serb. Chem. Soc.**, 77 (3), 279-286, **2012. (I. F.- 0.725)**
82. C. B. Sangani, D. C. Mungra, M. P. Patel, R. G. Patel, Synthesis and in vitro antimicrobial screening of new pyrano[4,3-b]pyrane derivatives of 1H-pyrazole, **Chin. Chem. Lett.**, 23, 57-60, **2012. (I. F.- 0.599)**
83. N. K. Shah, N. M. Shah, M. P. Patel, R. G. Patel, Synthesis, characterization and antimicrobial activity of some new biquinoline derivatives containing a thiazole moiety, **Chin. Chem. Lett.**, 23, 454-457, **2012. (I. F.- 0.599)**
84. Mungra, M. P. Patel, R. G. Patel, Microwave-assisted synthesis of some new tetrazolo[1,5-a]quinoline-based benzimidazoles catalyzed by p-TsOH and investigation of their antimicrobial activity, **Med. Chem. Res.**, 20, 782-789, **2011. (I. F.- 1.058)**
85. Mungra, M. P. Patel, D. P. Rajani, R. G. Patel, Synthesis and identification of  $\beta$ -aryloxyquinolines and their pyrano[3,2-c]chromene derivatives as a new class of antimicrobial and antituberculosis agents. **Eur. J. Med. Chem.**, 46, 4192, **2011. (I. F.- 3.356)**
86. J. A. Makawana, M. P. Patel, R. G. Patel, Synthesis and in vitro antimicrobial evaluation of penta-substituted pyridine derivatives bearing the quinoline nucleus. **Med. Chem. Res.**, 21, 616-623, **2012. (I. F.- 1.058)**
87. C. B. Sangani, D. C. Mungra, M. P. Patel, R. G. Patel, Synthesis and antimicrobial screening of pyrano[3,2-c]chromene derivatives of 1H-pyrazoles, **Central European Journal of Chemistry**, 9, 635-647, **2011. (I. F.- 0.991)**
88. N. K. Ladani, D. C. Mungra, M. P. Patel, R. G. Patel, Microwave assisted synthesis of novel Hantzsch 1,4-dihydropyridines, acridine-1,8-diones and polyhydroquinolines bearing the tetrazolo[1,5-a]quinoline moiety and their antimicrobial activity assess, **Chin. Chem. Lett.**, 22, 1407, **2011. (I. F.- 0.599)**

89. M. Patel, R. G. Patel, M. P. Patel, Super absorbent hydrogel based on poly[acrylamide/maleic acid/2-methacryloxy ethyl trimethylammonium chloride], Synthesis, characterization and application in the Removal of Chromene (IV) from aqueous solution, **J. Macromol. Sci., Pure Appl. Chem**, 46 (5, 339-347), **2011. (I. F.- 0.130)**
90. N. J. Thumar, M. P. Patel, Synthesis, characterization, and antimicrobial evaluation of carbostyryl derivatives of 1H-pyrazole, **Saudi Pharmaceutical Journal**, 19 (2), 75-83, **2011. (I. F.- 0.130)**
91. P. M. Shah, M. P. Patel, Zinc(II) chloride catalysed one pot synthesis of some new 4-thiazolidinone derivatives as biologically potent agent, **Indian J. Chem., Sect B**, 50, 310-314, **2011. (I. F.- 0.562)**
92. N. J. Thumar, M. P. Patel, Synthesis and antimicrobial activity of some new N-substituted quinoline derivatives of 1H-Pyrazole, **Arch Pharm. Chem. Life Sci.**, 344, 91-101, **2011. (I. F.- N/A)**
93. N. J. Parmar, H. A. Barad, B. Pansuriya, R. A. Patel, Chelation and extraction studies of copper (II) with 5-pyrazolone based Schiff base ligands. **J. Coord. Chem.**, 64 (4), 688-698, **2011. (I. F.- 1.932)**
94. N. J. Parmar, S. B. Teraiya,, R. A. Patel, N. P. Talpada, Tetrabutylammonium hydrogen sulfate mediated domino reaction: synthesis of novel benzopyran-annulated pyrano[2,3-c] pyrazols, **Tetrahedron Lett.**, 52, 2853-2856, **2011. (I. F.- 2.618)**
95. N. J. Parmar, R. A. Patel S. B. Teraiya, V. Gupta, R. Patel, Catalyst and solvent – free one-pot synthesis of some novel polyheterocycles from arydiazenyl salicylaldehydes derivatives, **RSC Advance** 2, 3069-3075, **2012. (I. F.-2.54)**
96. Deepali A. Kotadia, Saurabh S. Soni, Silica gel supported –SO<sub>3</sub>H functionalised benzimidazolium based ionic liquid as a mild and effective catalyst for rapid synthesis of 1-amidoalkyl naphthols, **J. Mole. Catal. A** 353-354, 44 – 49, **2012. (I. F.- 2.872)**
97. Saurabh S. Soni, Kishan B. Fadadu, Alain Gibaud, Ionic conductivity through thermoreversible polymer gel: ordering matters, **Langmuir**, 28, 751 – 756, **2012. (I. F.- 4.68)**
98. J. H. Trivedi, T.A. Bhatt, and H. C. Trivedi, Graft copolymerization of glycidyl methacrylate onto sodium salt of partially carboxymethylated guar gum: synthesis and characterization, **Trends in Carbohydrate Research**, 3(4), 35-41, **2011. (I. F.- 1.898)**

#### Department of Computer Science

99. Choksi D. B. and Bhatt R. D. Nonmigratory Process Allocation Mechanism for Load Balancing on Linux Clusters. *International Journal of Computer Science & Systems*, 2(2), 117-120, (2012).
100. Choksi D. B. and Joshi N. A. 'Forking A New Process With The Predetermined Pid Value During Process Migration'. *International Journal of Computer Applications*, Foundation of Computer Science, USA, NCICT(2), Number 1, Article 3, 8-11, (2011).
101. Choksi D. B. and Joshi N. A. 'Mechanism for Implementation of Load Balancing using Process Migration'. *International Journal of Computer Applications*, Foundation of Computer Science, New York, USA, Volume: 40 No. 9, (2012).
102. Virparia P. V., Patel J. and Patel P. Acoustic and Phonetic Confusions in Accented Gujarati Speech Recognition, *National Journal of Engineering, Science and Management* (ISSN: 2294-0264), 1(1), 11 – 12, (2011).
103. Virparia P. V., Patel A. and Kansara R. A Novel Architecture for Intrusion Detection in Mobile Adhoc Network. *International Journal of Advanced Computer Science & Applications* (ISSN : 2156-5570), Special Issue, 67-71, (2011).



104. Virparia P. V., Swaminarayan P., Daulatjada N. and Rathod V. R. A Comparative study of XSD and RDFS using sample Ontology of students Internal marks submission. National Journal of Engineering, Science and Management, 1(2), 8 – 12, (2011).
105. Virparia P. V., Parabia R. and Buch S. Analysis of Cellular Network Events for Estimating Road Traffic Events: Technological Survey, Challenges and its Solutions. National Journal of Engineering, Science and Management, 1(2), 16-21, (2011).
106. Vrparia P. V. and Shinghala A., A Survey of Natural Language Interface applications. International Journal of Information and Computing Technology, 1(2), 1-4, (2011).
107. Vrparia P. V. and Vaishvan K. Ontology Mapping: Need, Issues, and Challenges. International Journal of Information and Computing Technology, 1(2), 28-31, (2011).
108. Virparia P. V. and Patel H. Bootstrapping of Phone models for a large Vocabulary Continuous Speech Recognition for Gujarati. PRAJNA – Journal of Pure and Applied science, 19, 37-40, (2011).
109. Virparia P. V., Shingala A. and Chavda R. Natural Language Interface for Student Information System (NLSIS). PRAJNA – Journal of Pure and Applied science, 19, 41-44, (2011).
110. Virparia P. V., Kamani K. C. and Kathiria D. R. Proposed Bluetooth Protocol for Short Range Communication. International Journal of Information and Computing Technology, 2(1), 1-4, (2011).
111. Virparia P. V., Swaminarayan P., Daulatjada N. and Rathod V. R. A Comparative study of Query Languages for Semantic Web and retrieval of data from University Ontology using SPARQL. International Journal of Information and Computing Technology, 2(1), 5-10, (2011).
112. Virparia P. V. and Pandya S. D. Studing an impact of Past Performance in Academics using Data Mining Techniques. International Journal of Information and Computing Technology, 2(1), (2011).
113. Virparia P. V. and Bhatti D. Analyzing Soft Computing based Intrusion Detection Systems. International Journal of Advanced Research in Computer Science (ISSN:0976 – 569), 2, Number 2, (2011).
114. Virparia P. V., Bhatti D. and Patel B. Challenges in Genetic Algorithm based Intrusion Detection. National Journal Of System And Information Technology (ISSN: 0974-3308), 4(1), 109-116, (2011).
115. Vrparia P. V., Parabia R. and Buch S. The Cellular Network - An Emerging Resource for City Planning. National Journal of System and Information Technology (ISSN: 0974-3308), 4(1), (2011).
116. Virparia P. V., Patel M. and Patel D. Web based Fuzzy Expert System and Its Applications – a Survey. International Journal of Applied Information Systems, 1, Number 7, (2012).
117. Trivedi J. A. and Sajja P. S. "Improving efficiency of round robin scheduling using neuro fuzzy approach". International Journal of Research and Reviews in Computer Science, vol.2, no.2, 308-311, (2011).
118. Trivedi J. A. and Sajja P. S. Online guidance for effective investment using type-2 fuzzy neuro advisory system. International Journal of Computer Science and Information Technologies, vol.2, no.2, 799-803, (2011).
119. Dahiya V. R. and Sajja P. S. "Role of threshold value and CSF to simplify and render an image". International Journal of Computer Applications, 44-49, (2011).

120. Dahiya V. R. and Sajja P. S. "An image processing system for finding vision defects". International Journal of Computational Intelligence Research, vol.7, no.2, 135-142, (2011).
121. Sajja P. S. Feature-based opinion mining. International Journal of Data Mining and Emerging Technologies, vol.1, no.1, 8-13, (2011).
122. Dahiya V. R. and Sajja P. S. "Role of eye perception in analysis of vision defects". International Journal of Computer Engineering, vol.3, no.2, 83-87, (2011).
123. Mankad K. B. and Sajja P. S. "An intelligent decision support using genetic fuzzy integration for capability analysis". Journal of Global Research in Computer Science, vol.2, no.7, 83-87, (2011).
124. Patel S. V., Thakkar T. H. and Sajja P. S. A knowledge depiction in digital library by integrating multi-agent system for distributed database grid". International Journal of Grid Computing and Multiagent System, vol.2, no.1, 23-31, (2011).
125. Gutta A. S. and Sajja P. S. Intelligent farm expert multi agent system. International Journal on Computer Science and Engineering, vol.4, no.2, 166-175, (2012).
126. Dahiya V. R. and Sajja P. S. Perceptually oriented geometric primitives simplification for accelerating rendering. International Journal of Applied Science & Technology Research Excellence, vol.2, no.1, 94-96, (2012).
127. Trivedi J. A. and Sajja P. S. Neuro fuzzy advisory system for banks with type-2 fuzzy approach. National Journal of System and Information Technology, vol.4, no.1, 62-68, (2011).
128. Shah D. Multilingual Multimedia Based Decision Support System for Dermatology using Image Analysis. International Journal of Advanced Engineering Research & Studies, 1(2), 31-33, (2012).
129. Pander H. and Shah D. Application of Digital Image Processing & Analysis in Healthcare Based on Medical Palmistry. International Journal of Computer Applications (IJCA), 56-59, (2011).
130. Mistry M. and Shah D. Conveyance of Short Messing Services through Application. International Journal of Information and Computing Technology, 2(1), 14-16, (2011).
131. Patel B. and Shah D. Meta Search Ranking Strategies. International Journal of Information and Computing Technology, 2(1), 14-16, (2011).
132. Mistry M. and Shah D. Procedural approach for developing Ontology in Health Care sphere using protégé. Journal of Engineering, Science & Management, Vol-1 No- 2, 55-57, (2011).
133. Mistry M. and Shah D. Usefulness of ontologies in Health Care Environment. ADIT Journal of Engineering, Vol 8 No 1, (2011).
134. Mistry M., Pathak P. and Shah D. Communication amongst Agents. Journal of Engineering, Science & Management, Vol 1, No 1, 13-16, (2011).
135. Shah D. M. and Patel S. A Framework Based on Smart Technology for Educational e-IMS, International Journal of Information and Computing Technology, 1(2), 36-39, (2011).
136. Patel B. and Shah D. Adaptive and Search Engine Optimization. International Journal of Information and Computing Technology, 1(2), 14-15, (2011).
137. Patel B. and Shah D. Impact of Multi-Agents in Hospital Environment. International Journal of Computer Applications (IJCA), (2011).

138. Pathak P. and Shah D. A Path Finding Technique for Steer Behavior. International Journal of Information and Computing Technology, 1(2), 5-7, (2011).
139. Mistry M., Patel S. and Shah D. Mobile based Institute System with Assignment Module. International Journal of Advanced Engineering Research & Studies, I(2), 319-320, (2012).
140. Pathak P., Mistry M., Shah D. Factors of Path Finding for improving performance. International Journal of Advanced Engineering Research & Studies, I(2), 325-326, (2012).
141. Mistry M., Shah D. and Patel P. An Ontological Representation in HealthCare Domain. International Journal of Advanced Engineering Technology, III(I), 331-333, (2012).
142. Mistry M. and Shah D. An algorithm for retrieving information using Web Services and jQuery in HealthCare domain. Journal of Science & Technology, III(2), 17-21, (2012).
143. Patel J. K., Patel D. M. and Shah S. B. Enhancing and Measuring students IQ and EQ levels using AI. International Journal of Information and Computing Technology (RESEARCH@ICT), 1(2), 45-46, (2011).
144. Patel J. K., Khanna S. O. and Patel P. N. A solution for preventing SQL Injection in web based application. International Journal of Information and Computing Technology (RESEARCH@ICT), 1(2), 21-23, (2011).
145. Patel J. K., Patel P. N. and Mistry M. "WAY TO THE DESTINATION" - Implementing Google API And KML To Find Path From Source To Destination. International Journal of Information and Computing Technology (RESEARCH@ICT), 2(1), 40-42, (2011).
146. Patel K. and Panchal H. J. "MSAP: Multiple Sequence Alignment Processor with Block and Pattern Analyzer". Journal of Computational Intelligence in Bioinformatics, 4, Number 1, 83-93, (2011).
147. Dave K., Mckechnie L. and Panchal H. J. "Application of Nanobioinformatics in Medical Science – A Probable Therapy". Current Bioinformatics, 6, Number 2, 163-172(10), (2011).
148. Dave K., Gandhi M., Panchal H. and Vaidya M., "Revision of QSAR, docking, and molecular modeling studies of anti-influenza virus A (H1N1) drugs and targets: analysis of hemagglutinins 3D structure.". Current Computer Aided Drug Designing, 7, Number 4, 255-262, (2011).
149. Vaidya M. and Panchal H. A comparative analysis of "Homology Modeling Servers" for single chain and multi-chain protein structure prediction. National Journal of Engineering Science and Management, 1, Number 2, 35-38, (2011).
150. Patel T., Vaidya M., Panchal H. "Modeling of Protein Patched (*Ptch*) structure and study of genes that are responsible of Mandibular Prognathism (Class III Malocclusion)." National Journal of Engineering Science and Management, 1, Number 2, 90-95, (2011).

#### **Department of Electronics**

151. Desai R. R., Lakshminarayana D., Sachdeva R., Patel P. B., Panchal C. J., Desai M. S. and Padha N. Barrier inhomogeneities of Al/p-In<sub>2</sub>Te<sub>3</sub> thin film Schottky diodes. Journal of Nano and Electronic Physics (Ukraine), Vol.3, No.1, 995-1004, (2011).
152. Joshi K. and Vaishnav V. An approach to the Pursuit of Supramental or Integral Knowledge. Sri Aurobindo's Action. Vol. 42 No. 8, 10-12, (2011).
153. Trivedi U. B. Simulation of CIGS thin film solar cells using AMPS-1D. J. Nano Electron. Phys., 3 No.1, 747-754, (2011).

## Department of Materials Science

154. Manocha L. M., Vyas M. M., Manocha S. and Raole P. M. Microstructure and properties of three phase carbon and ceramic matrix composites. *Key Engineering Materials*, 484, 1-8, (2011).
155. Manocha L. M., Basak A., Manocha S., Darji A. Morphological Studies on CNT Reinforced SiC/SiOC Composites. *Eurasian Chemico-technological Journal*, 13, No.1-2, 41-47,(2011).
156. Manocha L. M., Prasad G., Manocha S. Effect of carbon fiber addition on ceramic reinforced phenolic resin based friction composites. *Eurasian Chemico-technological Journal*, 13, No.1-2, 49-57, (2011).
157. Manocha L. M., Vyas M. M., Manocha S. and Raole P. M. Effect of additional particulate reinforcement on the properties of fibrous ceramic matrix composites. *Eurasian Chemico-technological Journal*, 13, No.1-2, 35-40. (2011).
158. Manocha L. M., Gajera H., Manocha S. Studies on synthesis and reduction of graphene oxide from natural graphite by using chemical method. *Eurasian Chemico-technological Journal*, 13, No.1-2, 21-26, (2011).
159. Manocha L. M., Prasad G., Manocha S. Structural, Mechanical and Frictional Studies of Carbon-Fly ash-Ceramic composites. *Transaction of Indian Ceramic Society*, 71, No.2, 99-107,( 2012).
160. Manocha S. M., Darji A., Manocha L. M. Formation of Silicon carbide whiskers from Organic precursors via Sol-Gel method. *Eurasian Chemico-technological Journal*, 13, No.1-2, 27-33, (2011).
161. Manocha S., Joshi P., Patel B., Manocha L. M. Synthesis and Characterization of Hydroxyapatite nanoparticles using Sol-Gel method. *Eurasian Chemico-technological Journal*, 13, No.1-285-89, (2011).
162. Manocha S. M., Solanki V., Patel N., Manocha L. M. Studies on Fabrication & Characterization of Nanoclay reinforced Nylon-6 composites: Enhancement of Heat Distortion Temperature. *Eurasian Chemico-technological Journal*, 13, No.1-267-72, (2011).
163. Manocha S., Joshi P., Brahmabhatt A., Banerjee A., Sahoo S., Manocha L. M. Development of activated carbon using one step carbonization and activation reaction by polymer blend method. *Carbon letters*, 12, No. 285-89, (2011).
164. Manocha S., Joshi P., Manocha L. M. Preparation of Mesoporous Hydroxyapatite at different pH and their Comprehensive Characterization for Potential Application in Water Purification. *Transaction of Indian ceramic society*, Communicated, (2012).
165. Patel R. H. & Patel K. Synthesis and Characterization of Polyester urethane and their applications to flame retardant coatings. *International Journal of Polymer Analysis and Characterization*, 17, No.1, 85-92, (2012).

## Department of Mathematics

166. Dedaniaand H. V., Kanani H. J. A non-unital \*-algebra has UC\*NP if its unitization has UC\*NP, *Proceedings of the American Mathematical Society* Accepted, (2011).
167. Hasmani A. H. and Khambholja V. G. Interior Black-hole Solution with Anisotropic Fluid *Jour. Dynamical Systems and Geom. Theories*, Accepted, (2011).

168. Al-Salihi A. K., Hasmaniand A. H., Timol M. G. A New Family of Similarity Solutions of Three Dimensional MHD Boundary Layer Flows of Non-Newtonian Fluids using New Systematic Group-theoretic Approach. *App. Math. Sciences*, 5, 1325-1336, (2011).
169. Al-Salihi A. K., Hasmaniand A. H., Timol M. G. Using a Systematic Group Theoretic Method to Solve Flow of an Incompressible Second-Order Fluid past a Stretching Sheet *Math. Today*, 27, 6-17, (2011).
170. Al-Salihi A. K. Multiparameter Group Theoretic Method of Similarity Analysis. *Int. Jour. Math. Res.*, 3, 387-401, (2011).
171. Mehta R.D. and Mehta H.S.  $p$  – sets and  $(i) – p$ -sets for a Real Function Space. *Int. Jour. Math. Anal*, Accepted, (2011).
172. Bhatt S. J. and Dabhi P. A., Arens regularity and Amenability for Lau Product of Banach Algebras. *Bull. Aus. Math. Soc.*, Accepted, (2011).
173. Bhatt S. J.  $C^*$ -algebras, uniform Banach algebras and a functional analytic meta-theorem. *Math. Student*, 80, 31-66, (2011).
174. Mehta R. D. and Modi H. B., Non-regularity Set in Direct Sum of Hilbert Spaces.
175. Bhatt S. J., Dabhi P. A. and Dedania H. V. Multipliers of weighted Semigroups and Buerling Banach algebras. *Proc. Math.Sci., Ind. Acad. Sci.*, 121, 417-434. (2011).

#### Department of Physics

176. Pandya S. H., Kothari H. N. and Joshipura K. N. *Calculations on electron impact ionization cross-sections for atomic-molecular targets: ionospheric application*, *Advances in Geosciences - Planet. Sci.* (2010-'11) World Scientific publishing company Singapore, 25, 243, (2011).
177. Kothari H. N., Joshipura K. N. & Pandya S. N. Electron impact ionization of *plasma important  $SiCl_x$  ( $x=1-4$ ) molecules: Theoretical cross sections*. *J. Phys. B: At. Mol. Opt. Phys.* UK 44 (2011) 125202 (7pp), 44,125202 (7pp), (2011).
178. Shelat F. A., Joshipura K. N., Kothari H. N., Baluja K. L. *Electron scattering from LiH in a realistic dipole potential.*, *Ind. J. Phys.* 1739, 85, 1739, (2011).
179. M. Vinodkumar., Bhutadia H., Limbachiya C. G., & Joshipura K. N. *Electron impact total ionization cross sections for  $H_2S$ ,  $PH_3$ ,  $HCHO$  and  $HCOOH$* , *Int. J. Mass Spectrom.* 308, 35–40, (2011).
180. M. Vinodkumar, Limbachiya C.G., Joshipura K.N., and Mason N.J. *Electron impact calculations of total elastic cross sections over a wide energy range – 0.01 eV to 2 keV for  $CH_4$ ,  $SiH_4$  and  $H_2O$ .*, *Eur. Phys. J., D* 61, 579–585, (2011).
181. Santoki M. P., Ratheesh S., Sharma R., Joshipura K. N. & Basu S. *Assimilation of drifter data in a circulation model of the Indian Ocean*. *IEEE Geo-science & Remote Sensing Letters* 9(1), 100, (2012).
182. Patel U.H, Barot R. A., Patel B.D., Shah D. A., Modh R.D. Docking studies of pyrrole derivatives using Hex. *International journal of Environmental science*, Vol 2 & No 3, 1765-1770, (2012).
183. M. Vinodkumar, K. Korot, P. C. Vinodkumar. Computation of the electron impact total ionization cross section of  $C_nH_{(2n+1)}OH$  molecules from the threshold to 2 keV energy range, *Int.J. Mass Spectrometry*, 305, 26-29, (2011).

184. Thakkar K., Patel B., Majethiya A. and P. C. Vinodkumar. Properties of light flavor baryons in hypercentral quark model. *Pramana J. Physics*, 77, 1053-1067, (2011).
185. Parmar A., Thakkar K., Patel B. and P C Vinodkumar. Decay Widths of  $B_c \rightarrow J/\Psi \pi^+$  in CPP\(\nu\) model. *PRAJNA Jnl. of Pure and Applied Sciences (ISSN 0975-2595)*, 19, 60, (2011).
186. Thakkar K., Majethiya A. and P C Vinodkumar. p- wave Lamda Hyperon binding energies of medium heavy hyper nuclei. *Proc.DAE-BRNS National Symposium on Nucl. Phys.*, 56, 750, (2011).
187. Parmar A., Patel B., and P C Vinodkumar. Annihilation of S-wave Charmonium state in to  $YYY$ ,  $Ygg$  and  $ggg$  in CPPv model. *Proc.DAE-BRNS National Symposium on Nucl. Phys.*, 56, 852, (2011).
188. Patel B., Parmar A., Majethiya A. and P C Vinodkumar. Exclusive Charmonium  $+Y$  and bottonium  $+Y$  production in a potential scheme. *Proc.DAE-BRNS National Symposium on Nucl. Phys.*, 56, 848, (2011).
189. Majethiya A., Thakkar K., and P C Vinodkumar. Semileptonic decay of  $\lambda b \rightarrow XcL\nu_l$  in quark – diquark model. *Proc.DAE-BRNS National Symposium on Nucl. Phys.*, 56, 826, (2011).
190. Shah M., Parmar A. and P C Vinodkumar. S-wave properties of Bottonium using Martin like potential. *Proc.DAE-BRNS National Symposium on Nucl. Phys.*, 56, 866, (2011).
191. Shah M., Parmar A. and P C Vinodkumar. S-wave Properties of Charmonium using Power law Potential. *XXVI Gujarat Science Congress (GSC), Abstract Book*, 60, (2012).
192. Sumesh C. K., Patel K.D., Pathak V.M. and R. Srivastav. Analysis of current - voltage - temperature characteristics of In and Cu contacts on n-type  $MoSe_2$  single crystals. *Crystal Research and Technology*, Volume 46, Issue 1, 61–64, (2011).
193. Sumesh C.K., Patel K.D., Solanki G.K., Pathak V.M. and R. Srivastav. Low temperature Hall effect studies of InSb thin films grown by flash evaporation. *Eur. Phys.J.Appl.Phys.*, Vol.54, 10303-10307, (2011).
194. Sumesh C.K., Patel K.D., Pathak V.M. and R. Srivastav. Barrier height inhomogeneities in Cu-n $MoSe_2$  Schottky diode. *Eur. Phys.J.Appl.Phys.*, Vol.56, 10103-10109, (2011).
195. Patel H.S., Rathod J.R., Patel K.D., Pathak V.M. and R.Srivastav.  $MoSe_2$  / Polyaniline Solar Cells. *J. Nano- Electron. Phys.*, Vol.3 No1, 741, (2011).
196. Sumesh C.K., Patel K.D., Pathak V.M. and R. Srivastav. Current transport in Copper Schottky contacts to a-plane/c-plane n-type  $MoSe_2$ . *Chin.Phys.Lett*, Vol.28 No.8, 087201, (2011).
197. Sumesh C.K., Patel K.D., Pathak V.M. and R. Srivastav. Metal-Semiconductor field effect transistors fabricated using DVT grown n- $MoSe_2$  crystals with Cu-Schottky gates. *J. Nano-electron-phys.*, Vol.3 No1, 709, (2011).
198. Deshpande M.P., Chaki S.H., N.H.Patel, S.V.Bhatt, B.H.Soni, Study on nanoparticles of ZnSe synthesized by chemical method. *J. Nano-Electron. Phys*, 3(1), 186-195, (2011).
199. Soni B. H., Deshpande M. P., Bhatt S. V., Chaki S. H. and H. Kaheria. Study on antimicrobial activity of undoped and Mn doped ZnO nanoparticles synthesized by microwave irradiation. *Archives of Appl. Sci. Res*, 3(6), 173-179, (2011).
200. Deshpande M. P., Parmar M. N., Pandya N. N., Bhatt, S. V., Chaki S., and. H. Bandgap. Determination of copper doped tungsten diselenide single crystals by optical absorption method. *American J. of Mater. Sci.*, 1(2), 149-150, (2011).

201. Deshpande M. P., Chaki S. H., Patel J. G., Bhatt S. V., Garg N., Sathe V. Study on CdS nanoparticles and nanocrystalline thin films synthesized by chemical bath deposition technique. *Journal of Nanoscience, Nanoengineering and Applications*. 1(3), 1-9, (2011).
202. Vyas P. S., Gajjar P. N., Thakore B. Y. & Jani A. R. Elastic properties of  $\text{GaIn}_{1-x}\text{P}$  semiconductor. *Physics B*, 23, (2011).
203. Patel A. D., Khambholja S. G., Bhatt N. K., Thakore B. Y., Jani A. R. Thermo electric properties of Zn O with mie gruneisen hypothesis. *Journal of Nano electron physics*, 23, (2011).
204. Patel K. D., Solanki G. K., Panchal C. J., Hingarajiya K. S. and Gandhi J. R. Effect of Substrate Temperature on structural and morphological parameters of ZnTe thin films. *J. Nano-electron-phys.* 3, No1, 41-46, (2011).
205. Modi B. P., Patel K. D., Schottky. Contact of Gallium on p type Silicon. *J. Nano-electron-phys.*, 3, No1, 684-690, (2011).
206. Modi B. P., Patel K. D., Schottky. Barrier with liquid metal. *AIP Conf. Proc.*, 1393, 117-118, (2011).
207. Solanki G. K., Patel K. D., Patel R. B., Gosai N. N. and Mansur Y. G. Electrical and illumination dependent PEC solar cell parameters for  $\text{SnSe}_{0.5}\text{Te}_{0.5}$  single crystals. *International journal of Photonics*, 4, No.3, 1-13, (2012).
208. Sumesh C. K., Patel K. D., Solanki G. K., Pathak V. M. & Srivastava R. Low temperature Hall effect studies of InSb thin films grown by flash evaporation. *European Physical journal Applied Physics*, 54, 10303p1-10303p5, (2011).
209. Patel K. K., Patel M., Patel K. D., Solanki G. K., Pathak V. M. & Srivastava R. Temperature dependent I-V characteristics of Ag/p- $\text{Sn}_{0.2}\text{Se}_{0.8}$  thin film Schottky barrier diode. *J.Nano Electron. Phys.*, 3 (1), 783-786, (April 2011).
210. Solanki G. K., Patel K. D., Hingarajiya K. S. & Gosai N. N. Growth and dielectric studies of  $\text{SnSe}_{0.3}\text{Te}_{0.7}$  compound. *International Journal of Manufacturing Science and Engineering*, 2 (2), 85-87, (July-December 2011).
211. Solanki G. K., Patel K. D., Patel R. B., Gosai N. N. and Mansur Y. G. Electrical and Illumination Dependant PEC Solar Cell Parameters for  $\text{SnSe}_{0.5}\text{Te}_{0.5}$  Single Crystals. *International Journal of Photonics*, 4 (1), 1-13, (2012).
212. Solanki G. K., Patel K. D., Gosai N. N. & Patel R. R. Thermal parameters of direct vapour transport (DVT) technique grown  $\text{GeSePb}_{0.2}$  single crystals. *International J. Advances in Thermal sciences and Engineering*, 3 (1), 19-27, (January-June 2012).
213. Solanki G. K., Patel K. D., Gosai N. N. & Patel R. R. Growth and thermal properties of  $\text{GeSePb}_{0.4}$  single crystals. *American Institute of Physics (AIP) Conference Proceedings*, 1447, 1063-1064, (2012).
214. Chaki S., Patel A. J., Bhayani M. K. and Jani A. R. Growth, electrical transport properties and microtopographic studies of  $\text{Mo}_{0.3}\text{W}_{0.7}\text{Se}_2$  single crystal. *Materials Research Innovation*, 16(2), 96-101, (April 2011).
215. Bhatt S. V., Deshpande M. P., Chaki S. H., Patel N. H., Pandya N. and Soni B. H. Chemical synthesis and characterization of lead sulphide (PbS) nanoparticles. *AIP Conference Proceeding*, 1349, 281-282, (July 2011).
216. Chaki S. H., Deshpande M. P., Tailor J. P., Chaudhary M. D. and Mahato K. Growth and characterization of ADP single crystal. *American Journal of Condensed Matter Physics*, 2(1), 22- 26, (March 2012).

## Books/Chapters in Book

### Department of Bio-Sciences

1. Kalia K. and Patel HV, The diabetogenic effect of arsenic, Chapter in book "Environmental Pollution, Ecology and Human Health", (Ed. GP Reddy, SJS Flora, RM Basha) Narosa Publishing House, New Delhi
2. Shah V., Jain K., Desai C. and Madamwar D., Molecular analyses of microbial activities involved in bioremediation: Current scenario and future applications., Microbes in Environmental Management and Biotechnology., Chapter 11, 221-248 (2012).

### Department of Computer Sciences

3. Dr. Priti Srinivas Sajja, Personalized Content Representation through Hybridization of Mobile Agent and Interface Agent in Susmit Bagchi (Ed.), *Ubiquitous Multimedia and Mobile Agents: Models and Implementations*, Chapter 4, pp.85-112, IGI Global Book Publishing, Hershey, PA, USA, (August 2011).

### Department of Mathematics

4. A.H. Hasmani (Co-author), Mathematics (Std. 11) Sem-I, Gujarat State School Textbook Board, Gandhinagar, (2011).
5. A.H. Hasmani (Co-author), Mathematics (Std. 11) Sem-II, Gujarat State School Textbook Board, Gandhinagar, (2012).

### Department of Physics

6. Dr. N. K. Bhatt, Thermodynamic Properties of Some Metals at High Temperatures: Mean-Field Theory and Thermodynamics, LAP LAMBERT Academic Publishing ISBN-10: 3846518476 ISBN-13: 978-3846518472. (November 2011).
7. Dr. N. K. Bhatt et al., A Text Book of Physics Std. 12 (Sem: III and IV), Gujarat State School Text Book Board.