CURRICULUM VITAE

1. Name and Address



Dr. K. Suresh Kumar

Assistant Professor Department of Applied Chemistry S. V. National Institute of Technology (SVNIT) Surat – 395 007 Gujarat, INDIA

E-mail: sureshkumarchem@gmail.com; skk@ashd.svnit.ac.in **Phone:** +91-261-2201730 (O); **Mobile:** 9033369827

2. Date & Place of Birth: June 15th, 1977, Nellore, Andhra Pradesh, India.

3. Research Overview:

Suresh Kumar's work is in the area of molecular assembly on nanomaterials and their analytical applications for molecular reorganization and assays. In his formative years, he prepared aniline with various substituents and used as colorimetric reagents for analysis of carbamate pesticides in environmental samples. He developed capillary and microchip electrophoresis techniques for rapid screening of polymerase chain reaction (PCR) products in various animals and plants. He also did his work is on synthesis of functionalized nanomaterials and quantum dots as matrices and affinity probes for the analysis of proteins and enrichment of peptides and proteins in matrix-assisted laser desorption/ionization time of flight mass spectrometry (MALDI-TOF-MS), atmospheric pressure matrix-assisted laser desorption/ionization mass spectrometry (AP-MALDI-MS) and electrospray ionization mass spectrometry (ESI-MS). He developed NPs-based solvent microextraction techniques coupled with MALDI-MS for bioassays. He developed liquid nitrogen assisted spray ionization mass spectrometry for the identification of multiply charged proteins and amino acid clusters without electric field.

These days he is working in the area of molecular assembly on nanomaterials surfaces and their analytical applications for colorimetric sensing of various chemical species (metal ions, pesticides, drugs, and biomolecules). A large part of his recent research is on the functionalization of nanoparticles with various organic derivatives and their applications in molecular reorganizations with bare eyes. His group developed several nanomaterials-based miniaturized UV-visible spectrometric techniques for the quantification of various molecules (metal ions, pesticides, drugs and biomolecules) those can be used for *on-site* monitoring of target analytes without any sample pretreatment. With growing environmental concerns regarding the usage of toxic chemicals, there has been a greater emphasis on development of greener technologies in the recent years. In this regard, Dr. Suresh Kumar's research group is engaged in developing green chemistry approaches for preparation of carbon dots with high fluorescence quantum yield and used as fluorescent probes for imaging of biospecies (cells, bacteria and fungus) and for drug deliver.

4. Fields of Specialization

- Organic Framework on Nanomaterials and Nanosensors
- Proteomics, Mass Spectrometry, and Miniaturized Solvent Extraction
- Carbon Dots as Fluorescent Imaging Probes and Drug Delivery
- Nanomaterials for Biomarkers Detection
- Plasmonic Properties of Nanoparticles materials for Biomarkers Detection
- Nanoparticles-based Miniaturized Extractions and Capillary and Microchip Electrophoresis

5. Other interests

Cricket, Singing and Reading

6a. Awards:

- Young Scientist and Travel Winner Award by Taiwan Society for Mass Spectrometry, at 4th Asia Oceania Mass Spectrometry Conference and 10th Taiwan Society for Mass Spectrometry Annual Conference (4th AOMSC & 10th TSMS Annual Conference), Taipei, July 8-12, 2013.
- > Young Scientist Award by National Environmental Science Academy, New Delhi, India (2008).
- > Third Prize in Singing, Music Competition at S. K. U. P. G. Center, Kurnool (2001).

7b. Honors:

- ▶ Visiting Scientist, Department of Chemistry, National Sun Yat-sen University, Taiwan (2010).
- > Editorial Board Member, Journal of Integrated OMICS.

8. Educational Qualifications:

Degree	Subject	College/University	Year
B.Sc.	Botany, Zoology, Chemistry	V. R. College, Nellore, A.P., India	1999 (63.8%)
M.Sc.	Chemistry of Natural Products	S. K. U. P. G. Center, Kurnool, A.P., India	2001 (71.5%)
Ph.D.	Chemistry	S. V. University, Tirupati, A.P., India	2005

PhD Thesis Title: "Analysis of Organic Pollutants in Environmental Samples (Carbamate Pesticides)"

8a. Professional Experience (in India):

Position	Period	Institution	Nature of work
Assistant Professor	since 27 th March 2009	SVNIT, Surat	Teaching and Research
Scientist (Analytical	January 2006 –	Sami Labs Limited,	Research and development
Division)	August 2006	Bangalore	

8b. Professional Experience (Abroad)

Position	Period	Institution	Nature of work
Visiting Scientist	February 2010 –	National Sun Yat-Sen University,	Research
	September 2010	Taiwan	
Post-doctoral	February 2008 –	National Sun Yat-Sen University,	Research
Fellow	March 2009	Taiwan	
Post-doctoral	September 2006 –	Chonbuk National University, South	Research
Fellow	September 2007	Korea	

9. Sponsored Research Projects: On-going

Principle Investigator; Design, synthesis and characterization of functionalized nanoparticles with dithiocarbamate derivatives for selective sensing of pesticides. Funded by DST, India.

Principle Investigator; Organic framework on quantum dots and their uses as fluorescent probes for the selective recognition of metal ions, Funded by Institute Research Grant, SVNIT, Surat, Gujarat, India.

10a. Research Supervision: Ph.D. Students:

S.	Name of	f the	Register	Research area	Funding agency
No.	o. student number		number		
1.	Mr. Vai	ibhav	DS10CY352	Functionalization of NPs for metal ions	SVNIT
	N. Mehta			sensing and Carbon dots as fluorescent	
				probes for imaging of cells	

2.	Ms.	Karuna	DS11CY001	Preparation of Au NPs using novel reagents	Inspire Ph.D.
	A. Rawat			and their colorimetric sensing applications	DST, India
3.	Mr.	Jignesh	D12CY005	Dithiocarbamate functionalized NPs for	DST, India and
	V. Rohit			colorimetric detection of pesticides	TEQIP-II
4.	Ms.	D'Souza	DS12CY001	Green synthetic approaches for carbon dots	Inspire Ph.D.
	Stephanie			and their applications for drug delivery and	DST, India
	Louis in			imaging	

10b. M.Sc. Students:

S.	Name of the	Register	Title of the Dissertation	Year
No.	student	Number		
7.	Ms. Neelima	I09CY006	Dicoumarol as a novel reagent for gold nanoparticles	2014
	Betha		and their sensing application for lysozyme : Green	
			synthetic approaches for carbon dots preparation and	
			their cell imaging	
6.	Ms. Jigna	I08CY021	Synthesis of water-dispersible gold nanoparticles by	2013
	Bhamore		tryptophan, ascorbic acid, hydroxylamine	
			hydrochloride as reducing and capping agents: as	
			cysteine and glutathioine-selective colorimetric	
			probes	
5.	Mr. Gaurang	I08CY023	Carbendazim pesticide recognition by facile 4-	2013
	Patel		aminothiophenol assembly on silver nanoparticles	
4.	Mrs. Richita	I08CY026	Preparation of bifunctionalized silver nanoparticles	2013
	Modi		for the colorimetric sensing of Cr ³⁺ and Ba ²⁺ ions	
3.	Mrs. Sweta	I08CY028	Synthesis of citrate-protected silver nanoparticles as	2013
	Laliwala		colorimetric sensors for the selective and sensitive	
			detection of triptan-family drugs	
2.	Mr. Nishith P.	I07CY019	Effect of metal ions (Cu ²⁺ , Ni ²⁺ , Mn ²⁺) doping in ZnS	2012
	Gandhi		semiconductor nanoparticles as sensors.	
1.	Mr. Utkarsh B.	I07CY017	4-aminothiophenol capped gold nanoparticles as	2012
	Patel		colorimetric sensor for the selective sensing of cobalt	
			ions in water samples	

11a. Publications: International Journals: 54 including Review articles National Journals: --

- 54. Visual detection of arginine, histidine and lysine using quercetin-functionalized gold nanoparticles, Karuna A. Rawat, **K. Suresh Kumar**, **Microchimica Acta**, In press, **2014**. (IF 3.43)
- 53. Selective visual detection of Pb(II) ion via gold nanoparticles coated with a dithiocarbamatemodified 4'-aminobenzo-18-crown-6, Vaibhavkumar N. Mehta, Jignasa N. Solanki, **K. Suresh Kumar**, **Microchimica Acta**, In press, **2014**. (IF 3.43)
- 52. One-pot synthesis of gold nanoparticles by using 4-aminoantipyrine as a novel reducing and capping agent for simultaneous colorimetric sensing of four triptan-family drugs, Karuna A. Rawat, Kiran Surati, **K. Suresh Kumar**, **Analytical Methods**, In Press, **2014**. (IF 1.88)
- 51. Surface modification of silver nanoparticles with dopamine dithiocarbamate for selective colorimetric sensing of mancozeb in environmental samples, Jigneshkumar V. Rohit, Jignasa N. Solanki, K. Suresh Kumar, Sensors and Actuators B: Chemical, In press, 2014. (IF 3.53)

- 5-Sulfo anthranilic acid dithiocarbamate functionalized silver nanoparticles as colorimetric probe for simple and selective detection of tricyclazole fungicide in rice samples, Jignesh R Kumar and K. Suresh Kumar, Analytical Methods, In press 2014. (IF 1.88)
- 49. Recent developments in nanoparticle-based MALDI mass spectrometric analysis of phosphoproteomes, K. Suresh Kumar, Hui-Fen Wu, Microchimica Acta, In press 2014. (IF 3.43)
- 48. Electrospray ionization tandem mass spectrometry for rapid, sensitive and direct detection of melamine in dairy products, **K. Suresh Kumar**, Hui-Fen Wu, **Journal of Industrial and Engineering Chemistry**, In press **2014**. (IF 2.14)
- 47. Comparison of single-drop microextraction with microvolume pipette extraction directly coupled with capillary electrophoresis for extraction and separation of tricyclic antidepressant drugs, Hui-Fen Wu, K. Suresh Kumar, Ja-Yi Yan, Chen-Che Chin, Hsin-Yi Ku, Journal of Industrial and Engineering Chemistry, In press 2014. (IF 2.14)
- 46. One-pot green synthesis of carbon dots by using *Saccharum officinarum* juice for fluorescent imaging of bacteria (*Escherichia coli*) and yeast (*Saccharomyces cerevisiae*) cells, Vaibhavkumar N. Mehta, Sanjay Jha, K. Suresh Kumar, Materials Science and Engineering: C, 38, 20-27, 2014. (IF 2.40)
- 45. Citrate-modified silver nanoparticles as a colorimetric probe for simultaneous detection of four triptan-family drugs, Sweta K. Laliwala, Vaibhavkumar N. Mehta, Jigneshkumar V. Rohit, K. Suresh Kumar, Sensors and Actuators B: Chemical, 197, 254-263, 2014. (IF 3.53)
- 44. Bifunctionalization of silver nanoparticles with 6-mercaptonicotinic acid and melamine for simultaneous colorimetric sensing of Cr³⁺ and Ba²⁺ ions, Richita P. Modi, Vaibhavkumar N. Mehta, K. Suresh Kumar, Sensors and Actuators B: Chemical, 195, 562-571, 2014. (IF 3.53)
- 43. Recent developments of liquid-phase microextraction techniques directly combined with ESI- and MALDI-mass spectrometric techniques for organic and biomolecule assays, **K. Suresh Kumar**, Vaibhavkumar N Mehta, Hui-Fen Wu, **RSC Advances**, 4, 16188-16205, **2014**. (IF 2.56)
- 42. Sensitive and selective colorimetric sensing of Fe³⁺ ion by using p-amino salicylic acid dithiocarbamate functionalized gold nanoparticles, Vaibhavkumar N Mehta, **K. Suresh Kumar**, Hui-Fen Wu, **New Journal of Chemistry**, 38, 1503-1511, **2014**. (IF 2.98)
- 41. Advances in nanomaterial-based microwaves and infrared wave-assisted tryptic digestion for ultrafast proteolysis and rapid detection by MALDI-MS, **K. Suresh Kumar**, Hui-Fen Wu, **Combinatorial Chemistry & High Throughput Screening** (Bentham Science), 17, 68-79, **2014**. (IF 2.01)
- 40. Rapid quantification of efavirenz in human plasma by electrospray ionization tandem mass spectrometry, K. Suresh Kumar, Hui-Fen Wu, Journal of the Chinese Chemical Society, 61, 437 441, 2014. (IF 0.87)
- 39. Surface modified quantum dots as effective fluorescent probes for biomolecule recognition, Vaibhavkumar N Mehta, K. Suresh Kumar, and Hui-Fen Wu, Journal of Nanoscience and Nanotechnology, 14, 447-459 2014. (IF 1.12)
- 38. Electrospray ionization tandem mass spectrometric studies to probe the interaction of Cu(II) with amoxicillin, Ramaiyan Sekar, **K. Suresh Kumar**, Yuan-Chin Chen, Hui-Fen Wu, **Chinese Chemical Letters** (Elsevier), 25, 39-45, **2014**. (IF 1.21)
- Semiconductor nanomaterials-based fluorescence spectrometric and MALDI mass spectrometric approaches to proteome analyses, K. Suresh Kumar, Kuang-Hung Cheng, Hui-Fen Wu, Materials, 6, 5763-5795, 2013. (IF 2.24)
- 36. Single-drop microextraction for Bioanalysis: Present and Future, K. Suresh Kumar, H. F. Wu, Bioanalysis, 5,1-4, 2013. (IF 3.22) Editorial
- 35. Rapid separation of acetophenone and its monohydroxy isomers by capillary electrophoresis, Ramaiyan Sekar, **K. Suresh Kumar**, Wen-Shan Li, Han-Chung Wu, Hui-Fen Wu, **Chinese Chemical Letters** (Elsevier), 24, 833-836, **2013**. (IF1.21)

- 34. Recent advances in mass spectrometry for the identification of neurochemicals and their metabolites in biofluids **K. Suresh Kumar**, H. F. Wu, **Current Neuropharmacology**, 11, 436 464, **2013**. (IF 2.03), **Published as a Hot topic issue**.
- 33. Colorimetric detection of copper in water samples using dopamine dithiocarbamate-functionalized Au nanoparticles, Vaibhavkumar N Mehta, M. Anil Kumar, K. Suresh Kumar, Industrial and Engineering Chemistry Research, 52, 4414–4420, 2013. (IF 2.20)
- 32. Dopamine dithiocarbamate functionalized silver nanoparticles as colorimetric sensors for the detection of cobalt ion, Vaibhavkumar N Mehta, M. Anil Kumar, K. Suresh Kumar, Analytical Methods, 5, 1818-1822, 2013. (IF 1.88)
- Surface modified BaTiO3 nanoparticles as the matrix for phospholipids and as extracting probes for LLME of hydrophobic proteins in Escherichia coli by MALDI–MS, K. Suresh Kumar, H.F. Wu, Talanta, 114, 283-290, 2013. (IF 3.79)
- Surface-assisted laser desorption-ionization mass spectrometry of oligosaccharides using magnesium oxide nanoparticles as a matrix, K. Suresh Kumar, H. F. Wu, Microchimica Acta, 180, 405-413, 2013. (IF 3.43)
- 29. Electrospray ionization tandem mass spectrometric studies of copper and iron complexes with tobramycin, R. Sekar, K. Suresh Kumar, H. N. Abdelhamid, Y. C. Chen, Hui-Fen Wu, International Journal of Mass Spectrometry, 338, 23–29, 2013. (IF 2.54)
- 4-Mercaptophenylacetic acid functionalized Mn²⁺-doped ZnS nanoparticles fluorescence quenching caused by the addition of Cu²⁺. Nishith P. Gandhi, Jigneshkumar V. Rohit, M. Anil Kumar, K. Suresh Kumar, Research on Chemical Intermediates, 39, 3631-3639, 2013. (IF 0.88)
- 4-Aminothiophenol functionalized gold nanoparticles as colorimetric sensors for the detection of cobalt using UV-visible spectrometry. Utkarsh B. Patel, Vaibhavkumar N. Mehta, M. Anil Kumar, K. Suresh Kumar, Research on Chemical Intermediates, 39, 771–779, 2013. (IF 0.88)
- 26. Functionalized quantum dots with dopamine dithiocarbamate as the matrix for the quantification of efavirenz in human plasma and as affinity probes for rapid identification of microwave tryptic digested proteins in MALDI-TOF-MS, **K. Suresh Kumar**, Hui-Fen Wu, **Journal of Proteomics**, 75(10), 2924-2933, **2012**. (IF 5.07)
- 25. Dispersive liquid-liquid microextraction using functionalized Mg(OH)2 NPs with oleic acid as hydrophobic affinity probes for the analysis of hydrophobic proteins in bacteria by MALDI-MS, **K.** Suresh Kumar, Hui-Fen Wu, Analyst, 137 (19), 4490-4496, 2012. (IF 4.23)
- 24. One-pot synthesis of dopamine dithiocarbamate functionalized gold nanoparticles for quantitative analysis of small molecules and phosphopeptides in SALDI and MALDI-MS, **K. Suresh Kumar**, Hui-Fen Wu, **Analyst**, 137 (7), 1629-1638, **2012**. (IF 4.23)
- Identification of multiply charged proteins and amino acid clusters by liquid nitrogen assisted spray ionization mass spectrometry, K. Suresh Kumar, N. Hassan, Hui-Fen Wu, Talanta, 97, 539-549, 2012. (IF 3.79)
- 22. Rapid enrichment of phosphopeptides by BaTiO₃ nanoparticles after microwave-assisted tryptic digest of phosphoproteins, and their identification by MALDI-MS, **K. Suresh Kumar**, Hui-Fen Wu, **Microchimica Acta**, 179, 83-90, **2012**. (IF 3.43).
- Semiconductor cadmium sulphide nanoparticles as matrices for peptides and as co-matrices for the analysis of large proteins in MALDI reflectron and linear time-of-flight mass spectrometry, K. Suresh Kumar, Hui-Fen Wu, Rapid Communications in Mass Spectrometry, 25 (2), 271–280, 2011. (IF 2.69)
- Single drop microextraction coupled with MALDI mass spectrometry for the rapid and direct analysis of hydrophobic peptides from biological samples at high salt condition, Hui-Fen Wu, K. Suresh Kumar, Chi-Hsien Lin, Rapid Communications in Mass Spectrometry, 25 (2), 307–315, 2011. (IF 2.69)

- 19. Surface modified silver selinide nanoparticles as extracting probes to improve peptide/protein detection via nanoparticles-based liquid phase microextraction coupled with MALDI mass spectrometry, **K. Suresh Kumar**, Hui-Fen Wu, **Talanta**, 83 (2), 527-534, **2010**. (IF 3.29)
- 18. Surface-modified TiO₂ nanoparticles as affinity probes and as matrices for the rapid analysis of phosphopeptides and proteins in MALDI-TOF-MS, Yaotang Ke, **K. Suresh Kumar**, Hui-Fen Wu, M. Nawaz, **Journal of Separation Science**, 33 (21), 3400 3408, **2010**. (IF 2.55)
- 17. High resolution detection of high mass proteins up to 80000 Da via multifunctional CdS quantum dots in laser desorption/ionization mass spectrometry, Yaotang Ke, **K. Suresh Kumar**, Hui-Fen Wu, Zhen-Yu Chen, **Talanta**, 83 (1), 178-184, **2010**. (IF 3.29)
- 16. Electrostatically self-assembled azides on zinc sulfide nanoparticles as multifunctional nanoprobes for peptide and protein analysis in MALDI-TOF MS, Hui-Fen Wu, **K. Suresh Kumar** and Lokesh Shastri, **Talanta**, 82 (2), 540 547, **2010**. (IF 3.29)
- Nanoparticle-single drop microextraction as multifunctional and sensitive nanoprobes: Binary matrix approach for gold nanoparticles modified with (4-mercaptophenyliminomethyl)-2-methoxyphenol for peptide and protein analysis in MALDI-TOF MS, Lokesh Shastri, K. Suresh Kumar and Hui-Fen Wu, Talanta, 81 (4-5), 1176 – 1182, 2010. (IF 3.29)
- 14. Interference free detection for small molecules: Probing the Mn²⁺-doped effect and cysteine capped effect on the ZnS nanoparticles for coccidiostats and peptide analysis in SALDI-TOF MS, **K. Suresh Kumar** and Hui-Fen Wu, **Analyst**, 135 (5), 1115 1123, **2010**. (IF 3.76)
- Multifunctional ZrO₂ nanoparticles and ZrO₂-SiO₂ nanorods for improved MALDI-MS analysis of cyclodextrins, peptides, and phosphoproteins, K. Suresh Kumar and Hui-Fen Wu, Analytical and Bioanalytical Chemistry, 396 (3), 1115 1125, 2010. (IF 3.48)
- Microchip-based capillary electrophoresis for DNA analysis in modern biotechnology: A Review, K. Suresh Kumar and Seong Ho Kang, Separation and Purification Reviews, 38 (3), 242–288, 2009. (IF 2.61)
- 11. Quantum dots electrospray ionization mass spectrometry: 3-mercaptopropanic acid capped CdS quantum dots as accelerating and enrichment probes for microwave tryptic digestion of proteins, Kamlesh Shrivas, K. Suresh Kumar and Hui-Fen Wu, Rapid Commun. Mass Spectrom. 23 (22), 3603–3607, 2009. (IF 2.69)
- Cysteine-capped ZnSe quantum dots as affinity and accelerating probes for microwave enzymatic digestion of proteins via direct matrix-assisted laser desorption/ionization time-of-flight mass spectrometric analysis, Lokesh A. Shastri, K. Suresh Kumar, Hui-Fen Wu, Rapid Commun. Mass Spectrom. 23 (15), 2247–2252, 2009. (IF 2.69)
- Quantum dots laser desorption/ionization mass spectrometry: multifunctional CdSe quantum dots as the matrix, concentrating probes and acceleration for microwave enzymatic digestion for peptide analysis and high resolution detection of proteins in a linear MALDI-TOF MS, Kamlesh Shrivas, K. Suresh Kumar and Hui-Fen Wu, Proteomics, 9 (10), 2656–2667, 2009, (Selected as Featured on the cover page). (IF 4.58)
- 8. Comparison of ZnS semiconductor nanoparticles capped with various functional groups as the matrix and affinity probes for rapid analysis of cyclodextrins and proteins in surface-assisted laser desorption/ionization time-of-flight mass spectrometry, **K. Suresh Kumar**, Kamatam Kiran, Hui-Fen Wu, **Analytical Chemistry**, 80 (24), 9681 9688, **2008**. (IF 5.71)
- Ultra-fast simultaneous detection of obesity-related coenzymes in mice using microchip electrophoresis with a LIF detector" Hee Gu Lee; K. Suresh Kumar, Ju-Ryoun Soh, Youn-Soo Cha, Seong Ho Kang, Analytica Chimica Acta, 619 (1), 94 – 100, 2008. (IF 3.75)
- Facile and sensitive determination of selenium (IV) in pharmaceutical formulations by flow injection spectrophotometry, K. Suresh Kumar, S. Kanchi, S. H. Kang, Journal of Pharmaceutical Sciences, 95 (5), 1928 – 1933, 2008. (IF 2.69)

- Microchip gel electrophoresis with programmed field strength gradients for ultra-fast detection of canine T-cell lymphoma in dogs, K. Suresh Kumar, S. Lee, S. H. Kang, Talanta, 75 (1), 49 55, 2008. (IF 3.29)
- Ultra-fast detection and differentiation of *Mycoplasma Haemofelis* and *Candidatus M*. *Haemominutum* in Korean feral cats by microchip electrophoresis with programmed field strength gradients" K. Suresh Kumar, Hee Gu Lee, Dong Jin Yoo, Seong Ho Kang, Bull. Korean Chem. Soc., 29 (1), 153-158, 2008. (IF 0.93)
- 3. Speciation determination of chromium (III) and (VI) using preconcentration cloud point extraction with flame atomic absorption spectrometry (FAAS), K. Kiran, **K. Suresh Kumar**, S. Kanchi, B. Prasad, K. Janardhannam, **Journal of Hazardous Materials**, 150 (3), 582-586, **2008**. (IF 2.97)
- 2. Facile and sensitive spectrophotometric determination of vanadium in various samples, **K. Suresh Kumar**, S.H. Kang, S. Kanchi and K. Kiran, **Environmental Toxicology and Pharmacology**, 24 (1), 37 44, **2007**. (IF 1.29)
- Ultra-fast simultaneous analysis of GMOs in maize by microchip electrophoresis with laser-induced fluorescence detector, K. Suresh Kumar, S. H. Kang, Electrophoresis, 28 (22), 4247 – 4254, 2007. (IF 3.26)

11b. Book Chapters

- 1. **Suresh Kumar**, Hui-Fen Wu, Comprehensive Sampling and Sample Preparation. Volume 3, Chapter title: Inorganic Contaminants: Sample Preparation Approaches. Pawliszyn, J.; Le, X. C.; Li, X-F.; Lee, H. K.; Eds; Elsevier, Academic Press: Oxford, UK, pp 743–782, 2012.
- 2. Suresh Kumar, Hui-Fen Wu, Vaibhavkumar Mehta, Quantum Dots: Applications, Synthesis and Characterization. Chapter 5: Prospects of Engineering Quantum Dots Applications in Ultrasensitive Assays, Nova Science Publishers, 2012, 69-109. ISBN: 978-1-61942-968-0.
- 3. **Suresh Kumar**, Hui-Fen Wu, Cysteine: Biosynthesis, Chemical Structure and Toxicity. Chapter 3: Toxicity of Cysteine: Towards Biopathways. Editors: Fyodor V Chorkina, Andrey I. Karataev, Nova Science Publishers, 2012, 61-84. ISBN: 978-1-62081-386-7.
- 4. **Suresh Kumar** and Hui-Fen Wu, Lysozymes: Sources, Functions and Role in Disease. Chapter 5: Functions of Lysozymes and their identification of by MALDI-MS. Nova Science Publishers, 2013, 155-169. ISBN: 978-1-62257-842-9.
- 5. **Suresh Kumar**, Hui-Fen Wu, Shang-Da Huang, Waste Water-Treatment Technologies and Recent Developments . Chapter 5: Recent developments on mass spectrometric techniques for pesticide analysis from waste water. In Tech Publications, 2013, 99-120. ISBN 978-953-51-0882-5.
- 6. **Suresh Kumar**, Karuna A. Rawat, Hui-Fen Wu, Ionic Liquids in Bioanalysis, ebook entitled "Sample extraction techniques for biological samples: recent advances and novel applications". Future Science Group, UK, London, 2014, In press.
- 7. **Suresh Kumar**, Stephanie L. D'souza, Hui-Fen Wu, Analytical Applications of Nanoparticles in MALDI-MS for Bioanalysis, ebook entitled "Sample extraction techniques for biological samples: recent advances and novel applications" Future Science Group, UK, London, 2014, In press.

11 c. Presentations in National and International ConferencesNational: 10International: 1211d. Invited Talks: 10

12. Memberships in Scientific Societies:

Life member of Indian Society of Analytical Scientists (LM No: 1802); Member of Korean Chemical Society (2006 – 2007) Life Member in Indian Society for Mass Spectrometry (LM No: 728); Indian Council of Chemists (LF No: 1412); The Indian Science Congress (LM No: 17039); Indian Chemical Society (LM No: 7397); Chemical Research Society of India (LM No: 1376); National Environmental

Science Academy (LM No: 1137); Proteomics Society (LM No: 120); Society of Biological Chemists (INDIA) (LM No: 2573); Indian Society of Chemists and Biologists (LM No: 589); Material Research Society of India (LM No: 1977); Indian Nanoscience Society (LM No: 51); Society for Biomaterials and Artificial Organs (LM No: 558); The Indian Society for Technical Education (LM No: 80876); Indian Association of Nuclear Chemists and Allied Scientists (LM No: 1459); Indian Association of Chemistry Teachers (LM No: 974); Chromatographic Society of India, Association of Environmental Analytical Chemistry of India (LM No: 160); Institution of Chemists (LF: 6072); Association of Carbohydrate Chemists and Technologist (LM No: 216); Indian Peptide Society (LM No: 299); Semiconductor Society (LM No: 201304649); Luminescence Society (LM No: 586); Instrument Society of India (LM No: 2022); Indian Institution of Metals (LM No: HO4-LM01-49528); Indian Society for Surface Science and Technology (L/M-K-No: 40); Indian Membrane Society (LM No: 190); Indian Academy of Neurosciences (LK No: 109); Indian Laser Association (LM No: 1015); Indian Pharmacological Society (LK No: 417); Indian Society for Radiation and Photochemical Sciences (LM No: 424); Indian Biophysical Society (LM No: 821); Plasma Science Society of India (LM No: 1056); Association of Separation Scientists and Technologists (LM No: 0208); Forensic Science Development Society (LTSUR/39); Society for Toxicology, India (LTM No: 981); Indian Physical Society (LM No: 1011); Magnetic Society of India (LM No: 557); Indian Carbon Society (LM No: 356); National Magnetic Resonance Society (India); Society for Materials Chemistry (LM No: 711); Indian Photobiology Society(LM No: 1135); Indian Nuclear Society (LM No: 10652); Indian Association for Aromatic and Medicinal Plants (LM No: 331); International Academy of Physical Sciences (LM No: 13217); Society of Pesticide Science India (LM No: 336); Photonics Society of Science India; Electron Microscope Society of India (LM No: 1002)

13. Group Photos

2013

