Curriculum Vitae

Nirmala Chandrasekharan
Cisco Community College
717 E Industrial Blvd
Abilene Texas 79602
nirmala.chandrasekharan@cisco.edu

Work Experience

2014- current	Chemistry Professor	Cisco College. TX
2013- 2012	Chemistry Instructor	Minnesota West Community and Technical College, MN
2012 -2008	Adjunct/Visiting Faculty	Indiana University Northwest, IN
2006-2002	Assistant Research Scientist	University of Maryland Baltimore County, MD

Education

Ph.D. Chemistry Dept. of Inorganic and Physical Chemistry *Indian Institute of Science*, Bangalore, India 1994

Thesis Title: "Magnetism and Exchange in the Transition Metal Thiophosphates and their Solid Solutions."

M.Sc. Chemistry *Indian Institute of Technology*; Chennai, India 1985

B.Sc. Chemistry *Madras Christian College*, Chennai, India 1983

Professional achievements

- Completed certification course for Philosophy of teaching in community colleges (2013) Minnesota west community and technical college
- Certification of completion of workshops and courses from Quality Matters, the online presence of Maryland online inc. a leader in quality assurance for online education (www.qualitymatters.org).
- US patent #7256886 (2007) Brian Cullum, Mikella Hankus, Nirmala Chandrasekharan "*Surface enhanced raman spectroscopic nano-imaging probe and uses thereof*".
- Invited Lecture: *"Fluorescent Polymeric Surface-Oriented Sensors for Engineering and Biological Applications*," American Society of Photobiology, Baltimore; July 5-9, 2003.
- Over 3 years experience in synthesis of organic dyes and organic dyes anchored to polymeric coatings.
- Over 4 years experience in the synthesis and characterization of nanoparticles/Quantum Dots; as powders, in reverse micelles, solgels, thin films, colloids of metals, and semiconductors. Doping using e.g. transition metals like Mn as well as photoelectrochemistry of semiconductor and semiconductor nanocomposites for photovoltaic and environmental remedial applications.
- Over 8 years experience in researching (synthesis, structural and electronic) magnetic and electrical(metal-insulator) transitions in inorganic materials (chalcogenides); cluster complexes of germanium and silicon
- Over 6 years experience in the development and validation of analytical techniques for biosensor applications and chemical sensors

- Certification from the University of Maryland Baltimore County on laboratory safety compliance (OSHA) and hazard waste management

- Training Bayer LLC, Good Laboratory Practice (GLP) and Standard Operating Procedure (SOP)

Selected presentations

1.CTL (Center for teaching and learning) day Lecture presentation March 29 2013, Pipestone MN "infusing learner centered strategies into my courses" Pipestone campus, Minnesota west community and technical college

2.The teaching professor workshop "Infusing learner centered strategies into your course Jan 11-13 2013 Austin Texas Facilitators Maryellen Weimer, Dave Yearwood and Ike Shibley

3.Report "Ongoing development of assessment tools for learning outcomes in chemistry" Presentation at the

Faculty organization IUN, Hawthorn hall 107 February 17 201

4.Workshop on "Students Talk With Faculty About What Helps Them Learn" Tuesday November 22 2011

Library Conference center, IUN Gary, Indiana

5.Sub-surface brain tumor diagnosis using a portable NMPPAS based fiber optic microprobe SPIE Boston October 26 2005 J.B. Kiser, N. Chandrasekharan and B.M. Cullum

6.SERS chemical imaging nanoprobe for application to biological systems Pittsburg conference on analytical chemistry and applied spectroscopy Orlando March 1st 2005 M.E. Hankus, G.J.Gibson, N. Chandrasekharan and B.M. Cullum

7.Multiphoton photoacoustic spectroscopy for subsurface tissue diagnostics, Nirmala Chandrase.kharan, Benjamin Gonazales and Brian Cullum Pittcon 2004, Chicago Illinois March 1-4, 2004

8.Development of SERS nanoimaging, Nirmala Chandrasekharan, Honggang Li and Brian Cullum Pittcon 2004, Chicago Illinois March 1-4, 2004

9.Fluorescent Polymeric Surface - Oriented Sensors for Engineering and Biological Applications Nirmala Chandrasekharan and Lisa Kelly 31st Annual Meeting of the American Society for Photobiology, Baltimore , Maryland July 5 - 9 2003

10.A Temperature Sensitive Luminophoric Polymer Film Nirmala Chandrasekharan and Lisa Kelly Inter - American Photochemical Society Tempe , Arizona January 2nd - 5th 2003

11 A Paradigm Shift in Pressure Sensitive Paints NASA Langley Research Center, Hampton Virginia 16-19 October 2000 Nirmala Chandrasekharan, Lisa Kelly, Marvine Hamner and Louis Mattes.

12. Enhanced Photocurrent Generation at Nanostructured TiO_2 Films modified with Gold Nanoparticles. 197th oral presentation at the Conference of The Electrochemical society at Toronto May 14-18, 2000. Nirmala Chandrasekharan and Prashant Kamat

13. Copper doped nanocrystalline CdSe thin films. Conference of the Electrochemical society Boston, (1998) Nirmala Chandrasekharan, Sasha Gorer and Gary Hodes.

14. Switching effects in copper doped CdSe quantum dots. International Conference of the Physics of Semiconductors (ICPS94) Technion University , Israel. Boaz Alperson, Nirmala Chandrasekharan and Gary Hodes

Selected Publications

1.Structural, Vibrational, and Optical Characterization of Anodically Electroplated Germanium Thin Films Nirmala Chandrasekharan and Slavi Sevov J. Electrochem. Soc., 157, 12, C419-C423 (2010)

2. Anodic Electrodeposition of Germanium Films from Ethylenediamine Solutions of Deltahedral Ge_9^{4-} Zintl Ions Nirmala Chandrasekharan and Slavi C. Sevov J. Electrochem. Soc., 157, 4, C140-C145, (2010)

3. A fluorescent ratiometric alcohol sensor based on a solvatochromic polymeric dye, nile blue polymethacrylamide Nirmala Chandrasekharan, Sherif Ibrahim, Dan Kostov International Journal Bioautomation 9, 2000 31-39, (2007)

4. Progress towards fluorescent molecular thermometers. Chandrasekharan, Nirmala; Kelly, Lisa A. Reviews in Fluorescence (2004), 1 21-40. Publisher: Kluwer Academic/Plenum

5. Tuning the properties of CdSe nanoparticles in reverse micelles. Chandrasekharan, Nirmala; Kamat, Prashant V. Notre Dame Radiation Laboratory, Notre Dame, IN, USA. Research on Chemical Intermediates (2002), 28(7-9), 847-856. Publisher: VSP BV

6. Reversible adsorption-enhanced quantum confinement in semiconductor quantum dots. Sarkar, Shaibal K.; Chandrasekharan, Nirmala; Gorer, Sasha; Hodes, Gary. Department of Materials and Interfaces, Weizmann Institute of Science, Rehovot, Israel. Applied Physics Letters (2002), 81(26), 5045-5047. Publisher: American Institute of Physics,

7. A Dual Fluorescence Temperature Sensor Based on Perylene/Exciplex Interconversion. Chandrasekharan, Nirmala; Kelly, Lisa A. Department of Chemistry and Biochemistry, University of Maryland Baltimore County, Baltimore, MD, USA. Journal of the American Chemical Society (2001), 123(40), 9898-9899. Publisher: American Chemical Society,

8. Assembling gold nanoparticles as nanostructured films using an electrophoretic approach. Chandrasekharan, Nirmala; Kamat, Prashant V. Notre Dame Radiation Laboratory, Notre Dame, IN, USA. Nano Letters (2001), 1(2), 67-70. Publisher: American Chemical Society,

9. Dye-Capped Gold Nanoclusters: Photoinduced Morphological Changes in Gold/Rhodamine 6G Nanoassemblies. Chandrasekharan, Nirmala; Kamat, Prashant V.; Hu, Jingqiu; Jones, Guilford, II. Notre Dame Radiation Laboratory, University of Notre Dame, Notre Dame, IN, USA. Journal of Physical Chemistry B (2000), 104(47), 11103-11109. Publisher: American Chemical Society,

10. Size-selected zinc sulfide nanocrystallites: synthesis, structure, and optical studies. Nanda, J.; Sapra, Sameer; Sarma, D. D.; Chandrasekharan, Nirmala; Hodes, Gary. Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore, India. Chemistry of Materials (2000), 12(4), 1018-1024. Publisher: American Chemical Society,

11. Copper doped CdSe nanocrystalline thin films. Chandrasekharan, Nirmala; Gorer, Sasha; Hodes, Gary. The Weizmann Institute of Science, Rehovot, Israel. Proceedings - Electrochemical Society (1999), 98-19(Quantum Confinement: Nanostructures), 454-463. Publisher: Electrochemical Society,

12. Electronic Structure of NiS_{1-x} Se_x across the phase transition. Sarma, D. D.; Krishnakumar, S. R.; Chandrasekharan, Nirmala; Weschke, E.; Schussler-Langeheine, C.; Kilian, L.; Kaindl, G. Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore, India. Physical Review Letters (1998), 80(6), 1284-1287. Publisher: American Physical Society,

13. Magnetism, exchange and crystal field parameters in the orbitally unquenched Ising antiferromagnet $FePS_3$. Chandrasekharan, Nirmala; Vasudevan, Sukumaran. Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore, India. Pramana (1994), 43(1), 21-31.

14. Magnetism and exchange in the layered antiferromagnet $NiPS_3$. Chandrasekharan, Nirmala; Vasudevan, Sukumaran. Dep. Inorg. Phys. Chem., Indian Inst. Sci., Bangalore, India. Journal of Physics: Condensed Matter (1994), 6(24), 4569-79.