

## Curriculum Vitae of Sreenivasulu “Reddy” Venumbaka

### Qualifications Summary

Twenty years experience in synthesis and characterization of various new monomers and polymers. Prepared various fluorine containing monomers and polymers derived from substituted hexafluoroisopropanol aromatics. Liquid crystalline polymers were synthesized by using bicyclo[1.1.1]-propallane-1,3-dicarboxylic acid and studied their properties. Polyurethane and acrylic emulsions were made based on copolymers of acrylonitrile with different acrylic ester monomers in different combinations. The emulsions were studied as filler cum binder coat to the leather. Also, prepared the Neoprene and Nitrile rubber based adhesive for use in the leather industry. Synthesized the polyurethane lacquers and prepared the films using different cross linking agents and studied their thermal and mechanical properties of the resulting films.

Techniques Used: IR and NMR spectrosopes, Scanning Electron Microscopy, Instron, Light Scattering, Mass Loss Calorimeter, GPC, TGA, DSC and DMA.

### Positions

2001-Present	Director, IEIS Southwest Texas State University – San Marcos, TX
1999-2001	Assistant Director, IEIS Southwest Texas State University – San Marcos, TX
1996-1999	Senior Project Scientist, Polymer Research Group Southwest Texas State University – San Marcos, TX
1996-1998	Vice President Trinity Chemical Corporation – San Antonio, TX
1991-1996	Research Associate, Polymer Research Group Southwest Texas State University – San Marcos, TX
1989-1991	Research Associate, Department of Chemistry University of Texas at Austin – Austin, TX

### Education

Ph.D. (Polymer Chemistry)	1989	University of Madras, India
M.Sc. (Organic Chemistry)	1982	S. V. University, Tirupati, India
B. Sc. (Chemistry, Physics, Zoology)	1980	S. V. University, Tirupati, India

### Professional Memberships

- American Chemical Society (ACS) – Member
- Society for the Advancement of Material and Process Engineering (SAMPE) - Member

### Recent Publications

1. J. H. Koo, W. Wootan, W. K. Chon, H. W. Au Yeung and S. Venumbaka, “Flammability Studies of Fire Retardant Coatings on Wood,” *The ACS Fire and Polymers III Series*, ACS, Washington DC, (in press).
2. K. Kimura, Y. Yamashita, V. S. Reddy, J. W. Fitch, III and P.E. Cassidy, “(2,3,4,5,6-Pentafluorobenzoyl) Diphenyl Ether Compound, Method for Production Thereof, Fluorine-Containing Aryl Ether Ketone Polymer, and Method for Production Thereof” (in press).
3. H. Zhou, S. R. Venumbaka, J. W. Fitch and P. E. Cassidy, “Novel High Performance Polymers Derived from Aromatic and Aliphatic Spirodilactam Diphenol” *Polymer Preprints*, **43(2)**, 1347, 2002.

4. H. Zhou, S. R. Venumbaka, J. W. Fitch and P. E. Cassidy, "Novel Synthesis of Crosslinkable Fluorinated Polysiloxanes by Hydrosilation in Toluene and Supercritical Carbon Dioxide" *Polymer Preprints*, **43(1)**, 617, 2002.
5. R. Welsch, M. T. Blanda, S. R. Venumbaka, P. E. Cassidy and J. W. Fitch, "Hydrosilation Polymerizations with Diallyl Monomer – Benzene Solution Vs Supercritical Carbon Dioxide", *Polymer Preprints*, **42(1)**, 159, 2001.
6. X. Hu, M. T. Blanda, S. R. Venumbaka and P. E. Cassidy, "Ring-Opening Metathesis Polymerization of Norbornene in Supercritical Carbon Dioxide", *Polymer Preprints*, **42(1)**, 518, 2001.
7. H. Zhou, S. R. Venumbaka, J. W. Fitch and P. E. Cassidy, "Synthesis of Crosslinkable Poly(Carbosilane/siloxane)s by Hydrosilation in Toluene and Supercritical Carbon Dioxide" *Polymer Preprints*, **42(2)**, 368, 2001.
8. G. Li, K. P. Johnston, H. Zhou, S. R. Venumbaka and P. E. Cassidy, "Polymerization of Vinyl Chloride in Supercritical Carbon Dioxide", *Polymer Preprints*, **42(2)**, 817, 2001.
9. J. H. Koo, S. R. Venumbaka, P. E. Cassidy, J. W. Fitch, A. F. Grant and J. Bundick, "Flammability Studies of Thermal Resistant Polymers Using Cone Calorimetry," *Fire Materials*, **24**, 209, 2000.
10. J. W. Fitch, V. S. Reddy, P. W. Youngman, G. A. Wohlfahrt and P. E. Cassidy, "Poly(ether ketone)s derived from Bis(4-carboxyphenyl)phenylphosphine oxide" *Polymer*, **41**, 2301, 2000.
11. V. S. Reddy, M. Bruma, J. W. Fitch, III and P. E. Cassidy, "Polyacrylates Containing the Hexafluoroisopropylidene Function in the Pendant Groups," Chapter in *Fluoropolymers I: Synthesis*, Plenum Publishing Co., 3-9, 1999.
12. K. Kimura, Y. Yamashita, P.E. Cassidy, J.W. Fitch III and V.S. Reddy, "2,3,4,5,6-Pentafluorobenzoyl Diphenyl Ether Compound, and Fluorine-Containing Aryl Ether Ketone Polymer," U.S. Patent No. 09/354,976, September 1999.

### Presentations

1. J. H. Koo, B. Muskopf, P. V. Dine, B. Spencer, U. Sorathia and S. Venumbaka "Fire Performance of Polymer Matrix Composites for Marine Applications-Part 2," accepted for presentation at the SAMPE International Symposium, Long Beach, CA, May 6-10, 2001.
2. J. H. Koo, B. Muskopf, S. Venumbaka, P. V. Dine, B. Spencer and U. Sorathia, "Flammability Properties of Polymer Matrix Composites for Marine Applications," Fire and Materials International Conference, San Francisco, CA, January 22-24, 2001.
3. J. H. Koo, B. Muskopf, S. Venumbaka, P. V. Dine, B. Spencer and U. Sorathia, "Flammability Properties of Polymer Matrix Composites for Marine Applications," SAMPE Technical Conference, Boston, MA, November 1-5, 2000.
4. J. H. Koo, I. S. Reshetnikov, R. M. Aseeva, L. Pilato and S. R. Venumbaka, "Recent Russian Flammability Research in Polymeric Materials," ACS Fire and Polymers Symposium, Washington DC, August 20-24, 2000.
5. J. H. Koo, W. Wootan, W. K. Chon, H. W. Au Yeung and S. Venumbaka, "Flammability Studies of Fire Retardant Coatings on Wood," ACS Fire and Polymers Symposium, Washington DC, August 20-25, 2000.