

CURRICULUM VITA
JULIE P. HARMON, Ph.D.
Chemistry Department
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University of South Florida
Tampa, Florida 33620-5250
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University: (813) 974-3397
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Administration:

During my tenure at USF, I have been fortunate to work in a diverse environment that nurtured and motivated me to achieve goals and accomplishments and made me proud to be a faculty member in the College of Arts and Sciences. While enjoying and prospering from this experience, I am challenged to work to nurture, motivate and promote the general well being of the CAS Faculty as I believe that a healthy work environment is a productive work environment. At the same time, I enjoy the challenge of dealing with and ironing out interpersonal issues. My overall goal is to see that each faculty member fulfills his or her creative goals as a part the mission of the College of Arts and Sciences.

Research:

My research philosophy centers on the premise that applied research is most effective when it is basic in nature. In past years scientists often distinguished between basic and applied research. A more current line of thinking stresses the point that scientists are accountable to interface with all disciplines in an effort to focus their basic understanding of scientific principles on the pertinent needs of society. While my projects focus on applications, my students unravel the basic science principles that govern the behavior of materials.

Education

1983 Ph.D. Materials Science, University of Rochester, Rochester, NY.
1973 MS Biochemistry, Duquesne University, Pittsburgh, PA.
1971 BA Chemistry, Mercyhurst College, Erie, PA, Cum Laude.

Specialization

Polymer Materials Science - optical, thermal, mechanical, transport properties and structure-property relations. Vinyl polymerizations, polymer nanocomposites, dye photochemistry and radiation chemistry.

Employment

University of South Florida Chemistry Department:
1/07-present: Faculty Coordinator for Special Projects College of Arts and Sciences
6/06 to present: Professor
8/98 to 5/06: Associate Professor.
1/00 to 1/04 Graduate Coordinator
12/93-8/98 Assistant Professor.

University of Florida, Department of Physics,
7/88-12/93. Associate Research Scientist.
2/93 -12/93. Graduate Doctoral Research Faculty
5/89 -1/93. Associate Scientist
7/88 -5/89. Adjunct Visiting Assistant Research Scientist

3/89 - 11/90. Nanoptics Inc., Progress Center, Alachua, Florida, Chief Materials Scientist.

6/87 -6/88. Department of Materials Science and Engineering, University of Florida, Gainesville, Florida, Visiting Scientist. Researching mechanical and physical properties of polymers.

1986-87. University of Rochester, Rochester, New York, Adjunct Faculty, taught graduate evening class in polymer mechanical properties.

1983-87. Eastman Kodak Research Laboratories, Rochester, New York, Research Scientist. Research areas included team projects involving polymer electronic properties, laser dyes, dye diffusion, fluorescence, solubility and dye immobilization in polymers; polymer processing of composites- extrusion, compounding, and filler dispersion.

1978-82. University of Rochester, Rochester, New York, Ph.D. Materials Science. Diffusion and transport in deformed optical polymers, moving boundary analysis, swelling induced fracture and deformation recovery.

1976-77. UCO Optics, Scottsville, New York, Polymer Research Chemist. Research activities included optical polymers, diffusion induced deformation and swelling in hydrophilic polymers, polymer synthesis, the effect of structure on swelling and tear strength.

1973-75. PPG Industries, Pittsburgh, Pennsylvania, Technical Service Representative. Technical activities included polymer composites; mechanical properties of composites; polymer processing - coating, laminating rotational molding.

Teaching Experience:

1971-73 Teaching Assistant, Duquesne University, Chemistry Department.
Four Semesters

1978-80 Teaching Assistant, University of Rochester, Materials Science
Department. Four Semesters

1986-87 Mechanical Properties of Polymers
Designed as a new course
Graduate Level, University of Rochester
Polymer Chemistry
Team Taught with Dr. D. Teegarden
Undergraduate Level, St. John Fisher College, Rochester

University of South Florida:

1994 Fall CHM 5452 Polymer Chemistry

	CHM 6938 Polymer Chemistry
1995 Spring	CHM 2041 Undergraduate General Chemistry
Summer	CHM 2041 Undergraduate General Chemistry
Fall	CHM 5452 Polymer Chemistry CHM 6938 Polymer Chemistry
1996 Spring	CHM 5724 Applied Polymer Physics Distance learning CHM 6938 Applied Polymer Physics Distance learning
Summer	CHM 2041 Undergraduate General Chemistry
Fall	CHM 5452 Polymer Chemistry CHM 6938 Polymer Chemistry
1997 Spring	CHM 2041 Undergraduate General Chemistry
Summer	CHM 2041 Undergraduate General Chemistry
Fall	CHM 5452 Polymer Chemistry CHM 6938 Polymer Chemistry
1998 Spring	CHM 2041 Undergraduate General Chemistry
Summer	CHM 2041 Undergraduate General Chemistry
Fall	CHM 5452 Polymer Chemistry CHM 6938 Polymer Chemistry CHM 2041 General Chemistry Recitation Section
1999 Spring	CHM 5724 Applied Polymer Physics CHM 6938 Applied Polymer Physics
Summer	CHM 2041 Undergraduate General Chemistry
Fall	CHM 5452 Polymer Chemistry CHM 6938 Polymer Chemistry
2000 Spring	Administrative assignment
Fall	CHM 5452 Polymer Chemistry CHM 6938 Polymer Chemistry
2001 Spring	CHM 4932 and CHM 5931; Materials Chemistry
Summer	CHM 6938 Polyurea Chemistry CHM 2021 Chemistry for Today Laboratory Discussion section
Fall	CHM 2045 General Chemistry for Engineers
2002 Spring	CHM 4932 Materials Chemistry CHM 4932 Polymer Chemistry CHM 6938 Polymer Chemistry
Summer	CHM 2045 General Chemistry
Fall	CHM 2045 General Chemistry for Engineers
2003 Spring	CHM 4932 Polymer Physics CHM 6938 Polymer Physics
Summer	CHM 2045 General Chemistry
Fall	CHM 2045 General Chemistry for Engineers

2004	Spring	CHM 4932 Polymer Chemistry
		CHM 6938 Polymer Chemistry
	Summer	CHM General Chemistry
2005	Spring	CHM 4932 Polymer Physics
		CHM 6938 Polymer Physics
	Summer	CHM 2045 General Chemistry
	Fall	CHM 2045 General Chemistry for Engineers
2006	Spring	CHM 4932 Polymer Chemistry
		CHM 6938 Polymer Chemistry
	Summer	CHM General Chemistry

Students Completing Work under My Direction at University of Florida

1. Mr. Tushar Jhaveri MS, 1990
"Optically Radiation Resistant Polymeric Scintillator Base Materials"
Now at Vasu Chemical Company, Bombay, India
2. Ms. Ami Jhaveri MS, 1991
"Polymer-Dye Compositions for Improved Scintillation Counters"
Now at Vasu Chemical Company, Bombay, India
3. Dr. Justin Gaynor MS, 1992
"Optimal Materials for Use in Fluorescent Optical Fibers at the Superconducting Super Collider"
Now at Texas Instruments, Dallas, Texas
4. Dr. Anne Taylor Gaynor MS, 1992
"Radiation Resistant Materials for Use in the Superconducting Super Collider"
Now a Home Maker in Dallas, Texas
5. Mr. Gregory Schueneman MS, 1994
"Radiation Stability of Polymers for High Energy Radiation Detectors"
Now in Ph.D. Program at the University of Massachusetts, Amherst, Massachusetts
6. Dr. E. Biagtan Ph.D., 1995
"Effects of Gamma Radiation on Polymer Degradation and Surface Graft Polymerization"
Now at Guidant Company in Temecula, California

Students under My Direction at University Of South Florida:

Graduate Students:

1. Dr. Hang Gao Ph.D., 1997

"Viscoelasticity of p-alkylated and Halogenated Polystyrenes"
Now at General Electric in Pittsfield, Massachusetts

2. Patti Bertolucci Ph.D. 1998

“Viscoelastic Properties of Fiber Cladding Materials”

Now at Honeywell in Largo, Florida

3. Shayla Emran Ph.D. 2000

Thermal Properties of Dendrimers and Dendrimer Gels

Now at American Technical Ceramics in Jacksonville, FL

4. Shelli Soltis Tatro Ph.D. 2003

Irradiation Effects on Polymers Via MALDI Analysis

5. Kamal Ayoub Ph.D. 2001

Irradiation Effects on PE Via FTIR Microscopy

Now at American Home Products

6. Ken Heffner Ph.D. 2003

Irradiation Effects on Stereospecific PMMA; MALDI, FTIR Microscopy

7. Glen Gates h. D. 2001

Thermal Analysis of Polymers

Now Consultant

8. Melissa Foster Evans PhD 2003

Works with Dr. Poor in the School of Public Health

9. Michael Murray PhD 2002

Works with Dr. Klaus at University of Central Florida

10. LaNetra Clayton PhD 2005

Nanocomposites

11. Kadine Mohamed PhD 2006

Nano Composites and Biopolymers

12. Robert Summers MA 2006

12. Ken Kull PhD in progress

Polyamide Physical Chemistry

13. Krystal McCann PhD in progress

Metal-organic polymer nanocomposites

14. Shisi Liu PhD in progress

Carbon nanotube polymer composites

15. Chunyan Wang PhD in progress

Polymer coatings for glucose sensors

16. MuSeong Kim PhD in progress

!7. Bernard Knudsen PhD in progress
Metal-organic particle reactions

Undergraduates

1. Tina Marie Smith Undergraduate Student 1997-1999
Thermal Analysis

2. Timothy McGory Undergraduate Student, 1997
Plastisol Research

3. Patrick Stevens Undergraduate Student, 1996
Monomer Synthesis

4. Kevin White Undergraduate Student, 1995
Thermal Analysis of Dendrimers

5. Lana Halabi Undergraduate Student, 2000- 2001
Radiation Effects on Polymers

6. Lorraine Mendez Undergraduate Student, 2001- 2001
Diffusion in Polymers

7. Ryan Copley Undergraduate Student, 2001- 2003
Thermal Management

8. John D' Angelo Undergraduate Student, 2001-2003
Radiation Effects

9. Jason Kuczynski Undergraduate Student, 2002
Nanocomposites

10. Kartik Pandya Undergraduate Student, 2002-2003

11. Kristen Butler Undergraduate Student, 2003

12. Bernard Knudsen Undergraduate Student, 2003-2004
Serve on 24 graduate student committees

13. Shannon Struth Undergraduate Student, 2005-2006

14. Brent Hilker Undergraduate Student, 2007

**Department and College Governance Activities:
Search Committees:**

Chemistry

2000 Chair Search Committee for Assistant and Associate Professor
1998 Chair Search Committee for Materials Polymer Synthesis
1999 Chair Search Committee for Department Chair
1996 Search Committee for Two Tenure Track Faculty Members

USF Chemistry Department

2000-2005 Graduate Council

2003 Chair Search Committee for Assistant Chair
2002 Chair search committee for Assistant Chair
2002-Present Recruiting Committee
2001-2003 Chairman Graduate Council
2000-2003 Graduate Coordinator
2000-2001 Chairman of the Recruiting Committee
2001 Faculty Graduate Retreat Committee
2000-2002 Chemistry Building Committee
1995-2003 Chairman's Advisory Committee
2005-2006
2000 Chairman of Chairman's Advisory Committee
1996-2000 Faculty Development Committee
1995-2000 Library Committee
1995-96 Seminar Committee
1997-2000 Chair Instrument Committee

USF College of Arts and Sciences

1995-1996 Chair Faculty Development Committee
1996-2005 Diversity Committee
2001-2004 Diversity Committee Chair
2002-2003 Chair of Search for Faculty Enrichment Program
2001-2002 Chair of Search for Faculty Enrichment Program
2002-2003 Chair of Search for Faculty Enrichment Program
2006-present CAS Professional Development ad hoc Leave Committee

Research Grants Funded at University of South Florida

Funded:

Bismuth Oxide and Barium Titanate Nanocomposites

NASA Kennedy

Submitted May, 2005

J. Harmon is **Principal Investigator**

\$20,807+ \$10,000 additional=\$30,807

High Performance Polymer Nanocomposites for Radiation Shielding

NASA Space Explorations Mission Directorate

10/01/05-9/30/09

12/01/03-12/01/04 J. Harmon is Principal Investigator Funded and rescinded due to lack of funds	\$588,194
Development of Dip Molded Polyurethane and Silicone Balloons for Latex-Free Biomedical Systems II Renewal NDH Medical, Inc/ Florida High Tech Corridor 10501/06-05/01/07 J. Harmon is Principal Investigator	\$75,000
Development of Dip Molded Polyurethane and Silicone Balloons for Latex-Free Biomedical Systems NDH Medical, Inc/ Florida High Tech Corridor 08/03/04-08/03/05 J. Harmon is Principal Investigator	\$75,000
Prevention of Organic Deterioration Due to Water Separation at Freezing Science South, Inc/ Florida High Tech Corridor 08/03/04-08/03/05 J. Harmon is Principal Investigator	\$150,000
Glucose Sensor Tissue Interactions NIH 08/01/03-07/30/08 J. Harmon is Co-Investigator Harmon's portion is: With F. Moussy	\$373,727
Relaxation Dynamics of Polymeric Materials Used in Aerospace Application Honeywell, Inc 12/01/03-12/01/04 J. Harmon is Principal Investigator	\$22,055
Development of Novel Underfill Formulations with High Thermal Conductivity Honeywell Corporation/ Florida High Tech Corridor 03/03/04-03/03/05 J. Harmon is Principal Investigator	\$150,000
Irreversible Temperature Sensitive Microelectronics Coatings Honeywell Corporation/ Florida High Tech Corridor 03/03/04-03/03/05 J. Harmon is Principal Investigator	\$150,000
MRI Acquisition of a TEM for Multidisciplinary Research and Education NSF 08/02-08/04 J. Harmon is Co-Principal Investigator	\$738,000
Integrated Interdisciplinary Nanomaterials REU Site	

National Science Foundation J. Harmon Contributor M. Zaworotko PI	\$279,900
Lithium Conductivity Mechanism in Polymer Solid State Electrolyte Solicore Corporation/ Florida High Tech Corridor 9/02-1/04 J. Harmon is Principal Investigator	\$150,000
Development of Novel Underfill Formulations with High Thermal Conductivity Honeywell Corporation/ Florida High Tech Corridor 9/02-1/04 J. Harmon is Principal Investigator	\$150,000
Radiation Effects on Polymeric Systems Used in Space Environments Honeywell Corporation/ Florida High Tech Corridor 9/01-1/03 J. Harmon is Principal Investigator	\$75,000
Curable Coatings with controlled Rheology Honeywell Corporation/ I-4 Corridor 1/01-6/02 J. Harmon is Principal Investigator	\$150,000
Development of Novel, Highly Permeable, Contact Lens Materials- a University-Research Initiative Benz R&D/ I-4 Corridor 1/00-1/01 J. Harmon is Principal Investigator	\$75,000
Development of Radiation Resistant Optical Fiber Polymers Honeywell Corporation/ I-4 Corridor 1/00 –1/01 J. Harmon is Principal Investigator	\$54,000
Optical Fiber Research Honeywell Corporation Clearwater, FL 1/99 –1/00 J. Harmon is Principal Investigator	\$17,000
Proposal to Map Thermal Transitions in Optical polymers Via MDSC Benz Research and Development, Inc. Sarasota, FL 1/98-3/99 J. Harmon is Principal Investigator	\$1,500

Thermoreversible Dendrimer Gels
 USF Division of Sponsored Research
 Research and Creative Scholarship Award
 5/97-5/98
 J. Harmon is **Principal Investigator**. **\$7,500**

Low Refractive Index Optical Fiber Cladding Materials
 Optical Polymer Research, Inc., Gainesville, FL
 DOD AARPA Subcontract for 5/96-5/98
 J. Harmon is **Principal Investigator** on subcontract. **\$196,022**

Novel Materials for Optical Fibers with High Numerical Apertures
 Optical Polymer Research, Inc., Gainesville, FL 10/95-3/96
 J. Harmon is **Principal Investigator** on subcontract. **\$18,770**

Acquisition of GC/MS for Advanced Undergraduate Laboratories and Undergraduate Research
 NSF, 1996-2001
 J. Harmon was a **Contributor**. **\$32,575**

Acquisition of a MALDI-TOF Mass Spectrometer
 NSF, 09/01/95-08/31/96
 J. Harmon is **Co-Principal Investigator**. **\$164,444**

Contact Lens Research
 Bausch and Lomb
 Sarasota, FL, 1/97-6/97
 J. Harmon is **Principal Investigator**. **\$2,700**

Proposal to Investigate Calorimetric Properties of Viscous Hydrocarbon Polymer Matrices
 R. P. Scherer Company
 Clearwater, FL, 11/97-11/98
 J. Harmon is **Principal Investigator** **\$6,239**

Research Grants Funded at University of Florida as a Research Scientist

Proposal to Purchase a Luminescent Micro-Spectrometer
 NSF, 1994-98
 Principal Investigator: D. Tanner, **Co-Principal Investigators: J. Harmon and J. Reynolds**
\$199,423

A Plan to Incorporate Rad Hard, Low Tg Plastic Scintillator into SSC
 Technology Texas National Research Commission, 1993-94
Principal Investigator: J.P. Harmon **\$75,000**

Development of Radiation Hard, Mechanically Stable Scintillator for Use at the SSC
 Department of Energy/ Superconducting Super Collider, 1993-94
Principal Investigator: J.P. Harmon **\$35,238**

Fluorinated Methacrylate Cladding Materials

Optical Polymer Research, Inc., 7/93-1/94 Principal Investigator: J.P. Harmon	\$13,500
Research and Development Award for Graduate Student Funding Division of Sponsored Research University of Florida, 1993 Principal Investigator: J.P. Harmon	\$9,400
Radiation Hard Scintillator Development: Production and Study of Materials Department of Energy/ Superconducting Super Collider, 1993 Co-Principal Investigators: J.K. Walker and J.P. Harmon	\$189,678
Proposal for Scintillating Fiber and Avalanche Photodiode Assembly Department of Energy, 1991-1992 Co-Principal Investigators: J.K. Walker and J. Harmon	\$180,000
Processing Monitoring for Scintillating Optical Fiber Spinning, Research Development Award, Division of Sponsored Research, 1989-1992 Principal Investigator: J.P. Harmon	\$25,000

Books Edited

“Optical Polymers: Fibers and Waveguides, Edited by Julie P. Harmon and G. K. Noren, ACS Symposium Series 795, American Chemical Society, Washington DC, 2001.

Published Reviews

Review of “Thermal Analysis of Polymeric Materials, by Bernhard Wunderlich”. Julie P. Harmon *Journal of the American Chemical Society* (2005), 127(42), 14952.

Research Articles in Refereed Journals and Books

“Microscale Freeform Integration by Directed Self Assembly (review)” Nathan Crane, Mike Nellis, George Nolas, and Julie Harmon, submitted to Proceedings for Solid Freeform Fabrication Symposium, Austin Texas, August 508 (2007)..

“Examination of DC Conductivity and Interfacial Polarization in PMMA/Nanotube and PMMA/Soot Composites” LaNetra M. Clayton, Bernard Knudsen, Martin Cinke, M. Meyyappan, and Julie P. Harmon, accepted by Journal of Nanoscience and Nanotechnology, 7(7) 2494 (2007).

“Dielectric Properties of PMMA/Soot Nanocomposites”, LaNetra Clayton, Martin Cinke, M. Meyyappan and J. P. Harmon, accepted by Journal of Nanoscience and Nanotechnology, 2006.

“Dispersion of Single-walled Carbon Nanotubes in a Non-polar Polymer, Poly(4-methyl-1-pentene)”, LaNetra M. Clayton, Timofey G. Gerasimov, Martin Cinke, M. Meyyappan, J. P. Harmon, Journal of Nanoscience and Nanotechnology 6(8), 2520 (2006).

“Dielectric Analyses of a Series of Poly(2-Hydroxyethyl Methacrylate-co-2,3-Dihydroxypropyl Methacrylate) Copolymers”, K. Mohomed, F. Moussy, J. P. Harmon, Polymer, 47, 3856 (2006).

“A Broad Spectrum Analysis of the Dielectric Properties of Poly(2-Hydroxyethyl Methacrylate)”, K. Mohomed, T. G. Gerasimov, F. Moussy, J. P. Harmon, Polymer, 46, 3847 (2005).

”Thermal Analysis of Novel Underfill Materials with Optimum Processing Characteristics”, Y. Liu, Yi-Feng Wang, T. G. Gerasimov, K. H. Heffner and J. P. Harmon, Journal of Applied Polymer Science, 98 (3), 1300 (2005).

“Persistent Interactions Between Hydroxylated Nanoballs and Atactic Poly(hydroxyethyl methacrylate) (PHEMA)”, Kadine Mohomed, Heba Abourahma, Michael J. Zaworotko and Julie P. Harmon, Chemical Communications, 98 (3), 1300 (2005).

“The Effect of Host Nanoparticle Interactions on Polymer Relaxations”, K. Mohomed, T. Gerasimov, H. Abourahma, M. Zaworotko and J. P. Harmon, Materials Science and Engineering A, Vol. 409/1-2, 227 (2005).

“Modifying Electronic Character of Single-Walled Carbon Nanotubes through Anisotropic Polymer Interaction: A Raman Study”, Bin Chen, Martin Cinke, Meyya Meyyappan, Z. Chi, J. Harmon, P. Muisener, L. Clayton, and J. D’Angelo, Advanced Functional Materials, 15(7), 1183 (2005).

“Transparent PMMA/SWNT Composites with Increased Dielectric Constants”, L. Clayton, T. Gerasimov, M. Meyyappan and J. P. Harmon. Advanced Functional Materials, Vol. 15, No. 1, 101 (2005).

“Characterizations of Enriched Metallic Single-walled Carbon Nanotubes in Polymer Composite”, B. Chen, J. Yijian, M. Cinke, D. Au, J. P. Harmon, P. Muisener and L. Clayton, Accepted for publication in MRS Proceedings, Volume 856E, Multicomponent Polymer Systems-Phase Behavior, Dynamics and Applications, Editors: K.I. Winey, M. Dadmun, C. Leibig, R. Oliver, 2004.

“In Situ Synthesis and Performance of Titanium Oxide/Poly(Methyl methacrylate) Nanocomposites”, Uttam C. Bandugula, L.M. Clayton, J.P. Harmon, Ashok Kumar, Journal of Nanoscience and Nanotechnology, 5(5) 814 (2005). 2004.

“Probing Multi-walled Nanotube/PMMA Composites with Ionizing Radiation” Shelli R. Tatro, L. Clayton, Patricia A. O’Rourke Muisener, Apparao M. Rao, and J.P. Harmon. Polymer, Vol. 45, No. 6, 1971-79 (2004).

“In-Situ Synthesis and Magnetic Properties of Polystyrene/Polypyrrole Nanocomposite Materials With Uniformly Dispersed Nanoparticles”, H. Srikanth, P. Poddar, J. L. Wilson, K. Mohomed and J. P. Harmon, MRS Meeting Proceedings, Fall 2003, Vol. 788, 1.3.42.1, 2004.

“Gamma Radiation Effects on the Glass Transition Temperature and Mechanical Properties of PMMA/SOOT Nanocomposites”, L. Clayton, T. Gerasimov and J. P. Harmon, Polymer Bulletin, 52, 259-266 (2004).

“Modeling and Simulation of Aggregation Processes in Colloidal Systems,” Gita T. Iranipour, Luis H. Garcia-Rubio, and Julianne P. Harmon, J. of Dispersion Technology, 25(4), 555-565 (2004).

"Synthesis and Magnetic Properties of Polymer Nanocomposites with Embedded Iron Nanoparticles", J. L. Wilson, P. Poddar, N. A. Frey, H. Srikanth, K. Mohomed, J. P. Harmon, S. Kotha, & J. Wachsmuth, Journal of Applied Physics, 95(3), 1439-1443(2004).

“Processing of Transparent Polymer Nanotube Composites via Heat, UV Radiation and Ionizing (Gamma) Radiation Using Ultrasonication and Solvent Dissolution”, L. Clayton, R. Muisener, J. P. Harmon, A. Sikder, A. Kumar, A. Cassell, M. Cinke and M. Meyyappan, Materials Research Society Proceedings, Vol. 773, M 2.4 (2003).

“The Evolution of Surface Morphology of Hydroxyl Ethyl Methacrylate Copolymer Exposed to Gamma Radiation”, K-F. Chou, S. Lee, and J.P.Harmon, Macromolecules, 36 (15), 5683 (2003).

Harmon, Julie P.; Johns, Ken; Thomas, Richard R.; Galli, Giancarlo; Owen, Michael J.; Smith, Dennis W.; Kharitonov, Alexandre P.; Tressaud, Alain; Goodwin, Andy; Weinert, Raymond; Poggio, Tiziana; Masuda, Sho; Lin, Shio-Ching; Dasgupta, Dip; Ameduri, Druno; Clarson, Stephen; Wood, Kurt; Zhang, Yunxiang; Montefusco, Francesca; Miller, William A.; Dietz, Timothy. Fluorine in Coatings V. (Conference Papers held in Orlando, Florida 21-22 January 2003.).

“A MALDI, TGA, TG/MS and DEA Study of the Irradiation Effects on PMMA”, S. R. Tatro, G. R. Baker, K. Bisht and J. P. Harmon, Polymer, 44, 167 (2003).

“2,3-Dihydroxypropyl Methacrylate and 2-Hydroxyethyl Methacrylate Hydrogels: Gel Structure and Transport Properties“ G. Gates and J. P. Harmon, Polymer 44, 215 (2003).

“Intra and Intermolecular Relaxations 2,3-Dihydroxypropyl Methacrylate and 2-Hydroxyethyl Methacrylate Hydrogels“ G. Gates and J. P. Harmon, Polymer 44, 207 (2003).

“Transparent Polymer-Nanotube Composites Produced Via Solar Radiation, Ionizing Radiation and Heat”, L. M. Clayton, J. P. Harmon, M. Meyyappan, M. Cinke, A. Cassell, A. Kumar and A. K. Sikder, Materials Research Society Proceedings, Vol. 697, P9.7 (2002).

“Thermally-Induced Crack Healing in Poly(Methyl Methacrylate)”., Shen JS, Harmon JP, Lee S, Journal of Materials Research, 17, No. 6, 1335 (2002).

“Effects of Gamma Radiation on Poly(methyl methacrylate)/ Single-wall Nanotube Composites,” O’Rourke Muisener, P., Clayton, L., D’Angelo, J., and Harmon, J. P, Journal of Materials Research, 17, No. 10, 2507 (2002).

“Ionizing Radiation Effects on Interfaces in Carbon Nanotube-Polymer Composites,” Julie P., Muisener, P. A. O., Clayton, L., D’Angelo, J., Sikder, A. K., Kumar, A., Meyyappan, M., and Cassell, A. M., Materials Research Society Proceedings, Vol. 697, P9.7 (2002).

“Matrix Assisted Laser Desorption/Ionization (MALDI) Mass Spectrometry: Determining Mark-Houwink Sakurada Parameters and Analyzing The Breadth of Polymer Molecular Weight Distributions”, S. Tatro, G. Baker, R. Fleming and J. Harmon, Polymer, 43 (8) 2329 (2002).

“Evaluation of Mechanical and Tribological Behavior, and Surface Characteristics of CMP Pads”, A. K. Skidder, I. M. Irfan, A. Kumar, S. Ostapenko, M. Calves, J. P. Harmon and J. M. Anthony, Materials Research Society Symposium Proceedings, Vol. 671, M1.81 (2001).

“Viscoelastic Properties and Phase behavior of 12-*tert*-Butyl Ester Dendrimer/Poly (Methyl Methacrylate) Blends”, S. Emren, Y. Liu, G. Newkome and J. P. Harmon, Journal of Polymer Science Part B: Polymer Physics, Vol. 39, 1381 (2001).

“Water Structure in Hydroxyethyl-Co-Glycerol Methacrylate Materials,” G. Gates, J. P. Harmon, J. Ors and P. Benz, ANTEC, Proceedings of the Annual Technical Conference and Exhibition, Vol. XLVII, Dallas, Texas, May 6-11, 2001, 1891.

“Creep and Stress Relaxation in Methacrylate Polymers; Two Mechanisms of Relaxation Behavior Across the Glass Transition Region,” P. Bertolucci and J. P. Harmon, Polymer Engineering and Science, Vol. 41, No. 5, 873 (2001).

“Polymers for Optical Fibers and Waveguides,” J. P. Harmon. Advances in Optical Fibers and Waveguides, Eds. J. P. Harmon and G. Noren, American Chemical Society Symposium Series 795 (2001) 1.

“Miscibility Investigation of Fluorocarbon Copolymer and Methacrylate Copolymer Blends”, M. Calves and J. P. Harmon, . Advances in Optical Fibers and Waveguides, Eds. J. P. Harmon and G. Noren, American Chemical Society Symposium Series 795 (2001) 91.

“Polymer Scintillators - Continuous Versus Intermittent Gamma Irradiation Effects”, E. Biagtan, E. Goldberg, R. Stephens, E. Valeroso, M. Calves and J. P. Harmon, .Advances in Optical Fibers and Waveguides, Eds. J. P. Harmon and G. Noren, American Chemical Society Symposium Series 795 (2001) 221.

“Enzyme Catalyzed Ring-Opening Copolymerization of 5-methyl-5-benzyloxycarbonyl-1,3-dioxan-2-one (MBC) with Trimethylene Carbonate (TMC): Synthesis and Characterization,” T. F. Alzemi, J. P. Harmon and K. S. Bisht, Biomacromolecules, Vol. 1, 493 (2000).

“Molecular Relaxations in Ester-Terminated, Amide-Based Dendrimers,” S. Emran, G. Newkome, C. Weis and J. P. Harmon. Journal of Polymer Science Part B: Polymer Physics, Vol. 37, 2025 (1999).

"Radiation Resistant, Low Refractive Index, Fluorinated Methacrylate Polymers for Fiber Cladding," P. Bertolucci, E. Biagtan, E.P. Goldberg, P. Schuman, W. Schuman and J.P. Harmon. Polymer Engineering and Science, Vol. 38, No. 4, 699 (1998).

"An Empirical Correlation Between Glass Transition Temperatures and Structural Parameters for Polymers With Linear and Branched Alkyl Substituents," H. Gao and J.P. Harmon, Journal of Applied Polymer Science, 507 (1997).

"Dipole-Dipole Interactions in Controlled Refractive Index Polymers," P. Bertolucci and J.P. Harmon, Photonic and Optoelectronic Polymers, Eds., S.A. Jenekhe and K.J. Wynne, American Chemical Society Symposium Series 672 (1997) 79-97.

"The Effects of High Energy Radiation on Optical Properties of Polymers," Julie P. Harmon, Emmanuel Biagtan, Gregory Schueneman, and Eugene P. Goldberg, Radiation Effects on Polymers: Chemical and Technological Aspects, Eds., R.L. Clough and S.W. Shalaby, ACS Symposium Series 620 (1996) 302-312.

"Gamma Radiation Dose Rate Effects on a Polymer Scintillator Containing a Large Stokes Shift Dye, 3-Hydroxyflavone," E. Biagtan, E. Goldberg R. Stephens, E. Valeroso and J.P. Harmon, Nuclear Instruments and Methods in Physics Research, B114, 88 (1996).

"ESR Analysis of Gamma Radiation Dose Rate Effects on Scintillator Light Output," E. Biagtan, E.P. Goldberg, R. Stephens and J.P. Harmon, Nuclear Instruments and Methods in Physics Research, B114, 302 (1996).

"Para Substituted Polystyrenes: Stress Relaxation, Creep, Dynamic Mechanical and Dielectric Analyses," H. Gao and J.P. Harmon, Thermochimica ACTA, 284, 85 (1996).

"Gamma Dose and Dose Rate Effects on Scintillator Light Output," E. Biagtan, E.P. Goldberg and J.P. Harmon, Nuclear Instruments and Methods in Physics Research, B108, 1235 (1995).

"Effect of Gamma Radiation Dose Rate on the Light Output of Commercial Polymer Scintillators," E. Biagtan, E. Goldberg, J. Harmon and R. Stephens, Nuclear Instruments and Methods in Physics Research, B93, 296 (1994).

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"Study of Anti-Corrosion Coatings for Stainless Steel," J. Harmon and C.L. Beatty, Southeastern Section, American Chemical Society, Orlando, Florida (1987).

"The Effect of Sorbed Hydrocarbons on Polymeric Foam Properties," J. Harmon, W. Williams, J. Dixon and C.L. Beatty, American Chemical Society, Orlando, Florida (1987).

"Use of Deformation in Different States of Stress to Bias the Glass Transition Temperature and Relaxation Behavior," Y. Katz, J. Harmon and C.L. Beatty, The Society of Rheology, Atlanta, Georgia (1987).

"Enthalpy Recovery in Polystyrene," J. Harmon, New York Academy of Science, New York, New York (1980).

"Penetrant Transport in Deformed Polymers," J. Harmon, Syracuse University, Syracuse, New York (1980). Invited Talk.

Awards and Scholarships

Honeywell University Research Award (1999).

Research and Creative Scholarship Award, Division of Sponsored Research, University of South Florida (1997)

Research and Development Awards, Division of Sponsored Research, University of Florida (1989,1990,1993)

Research cited in New Technology Week, April 22, 1991

Allied Chemical Fellow, University Of Rochester, 1978-1980

Cum Laude, Mercyhurst College

Full Honors Scholarship, Mercyhurst College

Professional Society Memberships

Member of Materials Research Society (2001 to present)

Member of the American Physical Society (2002)

Member of the Institute for Biomolecular Science, University of South Florida (1993-2000)

Member of the Center for Molecular Design and Recognition, University of South Florida (1997-2000)

Member of the Society of Plastics Engineers (1985 to present)

Member of American Chemical Society (1990 to present)

Member of the American Chemical Society Division of Polymer Chemistry (1990 to present)

Member of the Organizational Committee of the American Chemical Society Division of Polymer Chemistry (1997-2000)

Member of American Chemical Society Division of Polymer Materials Science and Engineering (1990 to present)

Member of North American Thermal Analysis Society (1995-2000)

Government Panels

DOE Extreme Environments Basic Research Needs Workshop, June 11-13, 2008.

NSF Advisory Panel for IGERT, June 15-16, 2006.

NSF Advisory Panel for Biosystems at the Nanoscale, NIRT, March 22-23, 2006.

NSF Advisory Panel for SBIR/STTR Natural Biomaterials, April 12, 2004.

NSF Advisory Panel for Biosystems at the Nanoscale, NER, January 13-14, 2005.

NSF Advisory Panel for SBIR/STTR Natural Biomaterials, March 17, 2004.

NSF Advisory Panel for Biosystems at the Nanoscale, NER, January 27-28, 2004.

NSF Advisory Panel for Biosystems at the Nanoscale, NIRT, January 5-6, 2003.

NSF Advisory Panel for Biosystems at the Nanoscale, NIRT, March 11-13, 2002.

NSF Advisory Panel for Biosystems at the Nanoscale, NIRT February 5-6, 2001.

Symposium Chairs

FAME, American Chemical Society Symposium Organizer, Industrial and Academic Advances in Polymer Science in Florida, Orlando, Florida, May 6-8 (2004)

International ACS Symposium Organizer, Optical Polymers: Advances in Optical Fibers, ACS, New Orleans, Louisiana (1999)

Symposium Chair, High-Performance Polymers, Florida ACS Meeting, Orlando, Florida (1993)

Symposium Chair, Polymer Processing Society 4th Annual Meeting, Orlando, Florida (1988)

Service to Tampa Bay Community

International and Local Science Fair Judging

High School Students Science and Engineering Summer Laboratory Internship Program, 1995, 1996, 1997.

Chemathon for Local High School Students, 1995, 1996, 1997.

Great American Teach-In, Tampa Palms Elementary School, 1995 and 1996.

Women and Minorities in Science Efforts

Panelist: Graduate School Women in Underrepresented Disciplines, March 22, 2007 Inuiversity of South Florida.

Recruiting Minorities in Science, Hillsborough County High School Students Visit to USF, July, 2001.

City of Tampa Elementary School Minority Tour, June, 1997

USF Institute for Biomolecular Science Summer Program for Minority Students, Panelist, 1996 and 1997

Polymer Laboratories Tour for "Town and Gowns", local Tampa women's group, 1997

1997 USF Governor's Summer Leadership Program for Young Women's Shadow Day
Women in Science in Tampa meeting participant, 1996

Visiting Speaker for Course, WST 4350, Women in Science, Women's Study Department, USF, 1996

Girls + Math + Science = Success, for grade school in Clearwater, Florida, 1995

USF University wide seminar organizer:

Speaker: Dr. Mary Krenzeski, Eastman Kodak, "Women in Science, is There a Glass Ceiling?", 1995

"Lifting the Veil" panelist for women in science discussion, USF, 1995