

1. Name and Academic Rank

Gregory B. McKenna , Horn Professor

2. Degrees

B.S., Summa Cum Laude (3rd in class), Engineering Mechanics, U. S. Air Force Academy, 1970.
S.M., Unspecified (composite materials emphasis), Massachusetts Institute of Technology, 1971.
Ph.D., Materials Science and Engineering, University of Utah, 1976.

3. Years of Service at Texas Tech University

1999 - present Professor and John R. Bradford Endowed Chair in Engineering

2001 - 2004 Department Chair

4. Other Related Experience

2009 Invited Professor at the E.N.S.A.M., Paris, France.

2006-2007 Sabbatical leave at the E.S.P.C.I., Paris, France.

1992-1999 Group Leader, Structure and Mechanics Group, Polymers Division, National Institute of Standards and Technology (formerly National Bureau of Standards).

1977-1992 Staff Scientist, Polymers Division, National Institute of Standards and Technology.

1990-1991 Special Assignment from NIST to Universite Louis Pasteur, Strasbourg, FR 1986 Special assignment from NBS to Universite Louis Pasteur, Strasbourg, FR.

1981-1983 Special assignment from NBS to Institute Charles Sadron, Strasbourg, FR.

1976-1977 National Research Council Post-Doctoral Research Associate, Polymers Division, National Bureau of Standards.

1971-1975 Project Engineer, United States Air Force (honorably discharged at rank of captain), Hill Air Force Base, Utah.

5. Consulting, Patents, Etc. Occasional consulting. Nike, Vistakon, Sandia Labs.

6. States in Which Registered None

7. Principal Publications of Last Five Years (15 of 40)

1. M. Alcoutlabi, S. G. Baek, J. J. Magda, X. Shi, S. A. Hutcheson and G. B. McKenna, "A comparison of three different methods for measuring both normal stress differences of viscoelastic liquids in torsional rheometer," *Rheol. Acta*, 48, 191-200 (2009). [DOI 10.1007/s00397-008-0330-z,(online)].

2. G.B.McKenna, T. Narita and F. Lequeux, "Soft Colloidal Matter: A Phenomenological Comparison of the Aging and Mechanical Responses with Those of Molecular Glasses," *J. Rheol.*, 53, 489-516 (2009).

3. J. Wu and G.B. McKenna, "Anomalous Melting Behavior of Cyclohexane and Cyclooctane in Poly(dimethyl siloxane) Precursors and Model Networks," *J. Polym. Sci. Part B. Polym. Phys. Ed.*, 46, 2779-2791 (2008).

4. S.L. Simon and G.B. McKenna, "Experimental Evidence Against the Existence of an Ideal Glass Transition," *J. Non-Crystalline Solids*, 355, 672-675 (2009).

5. G.B. McKenna, "A Brief Discussion: Thermodynamic and Dynamic Fragilities, Non-divergent Dynamics and the Prigogine-Defay Ratio," *J. Non-Cryst. Solids*, 355, 663-671 (2009).

6. G.B. McKenna, "Diverging views on glass transition," *Nature Physics*, 4, 673-674 (2008).

7. Q. Qin, X. Shi and G.B. McKenna, "Mechanical holeburning spectroscopy in an SIS tri-block copolymer," *J. Polymer Science. Part B.: Polymer Physics*, 46, 3277-3284 (2007).

8. C. Sui, G.B. McKenna and J. Puskas, "Nonlinear viscoelastic response of dendritic (arborescent) polyisobutylenes in single and reversing double-step shearing flows," *J. Rheol.*, 51, 1143-1169 (2007).

9. G.B. McKenna, "Glassy States: Concentration Glasses and Temperature Glasses Compared," *J. Non-Crystalline Solids*, 353, 3820-3828 (2007).
10. P.A. O'Connell and G.B. McKenna, "Novel Nanobubble Inflation Method for Determining the Viscoelastic Properties of Ultrathin Polymer Films," *Rev. Sci. Instr.*, 78, 013901-1 – 013901-12 (2007).
11. X. Shi and G.B. McKenna, "Mechanical Hole-burning Spectroscopy: Demonstration of Hole Burning in the Terminal Relaxation Regime," *Phys. Rev. B.*, 73, 014203-1 – 014203-11 (2006).
12. P.A. O'Connell and G.B. McKenna, "Dramatic stiffening of ultrathin polymer films in the rubbery regime" *European Physical Journal E*, 20, 143-150 (2006).
13. Q. Qin and G.B. McKenna, "Correlation between dynamic fragility and glass transition temperature for different classes of glass forming liquids," *Journal of Non-Crystalline Solids*, 352, 2977-2985 (2006).
14. A. Flory and G.B. McKenna, "Chemical Structure—Normal Force Relationships in Polymer Glasses," *Polymer* 45, 5211-5217 (2005).
15. P.A. O'Connell and G.B. McKenna, "Rheological Measurements of the Thermoviscoelastic Response of Ultrathin Polymer Films," *Science*, 307, 1760-1763 (2005).

8. Professional Societies

American Physical Society, Society of Rheology, Society of Plastics Engineers, Society of Engineering Science, North American Thermal Analysis Society, American Institute of Chemical Engineers, American Chemical Society, American Association for the Advancement of Science, Rubber Division

9. Honors and Awards

- 2009 To be awarded the Bingham Medal of the Society of Rheology (October).
- 2007 Awarded the Founders Award of the Polymer Analysis Division of the Society of Plastics Engineers
- 2006 Awarded the George Stafford Whitby Award for Distinguished Teaching and Research by the Rubber Division, American Chemical Society
- 2005 Appointed Paul Whitfield Horn Professor at Texas Tech University
- 2005 Awarded Fellow status in the Society of Engineering Science
- 2004 Received Society of Plastics Engineers International Award (Highest award of society)
- 2001 Received the Mettler-Toledo Award of the North American Thermal Analysis Society (Highest award of society)
- 2000 Received Society of Plastics Engineers International Research Award.
- 2000 Awarded Russell Severence Springer Visiting Professorship, UC Berkeley.
- 1999 Awarded the John R. Bradford Endowed Chair in Engineering, Texas Tech University
- 1998 Awarded Fellow status in the Society of Plastics Engineers.
- 1996 Society of Plastics Engineers Best Paper Award, ANTEC
- 1992 U.S. Dept. of Commerce Silver Medal Award for Outstanding Federal Service.
- 1989 Given the Edward U. Condon Award for best technical paper, NIST
- 1989 Awarded Fellow status in American Physical Society.
- 1985 Received U.S. Dept. of Commerce Bronze Medal Award for Superior Federal Service
- 1976 Natl. Res. Council Postdoctoral Fellowship at the National Bureau of Standards
- 1970 Distinguished Graduate (Summa cum laude), U.S.A.F. Academy. (Third in class)

10. Institutional and Professional Service in the Last Five Years

- 2008-present Senior Editor and Editor-in-Chief, *Journal of Polymer Science. Part B. Polymer Physics* (Wiley).
- 2000-2008 Editor, *Journal of Polymer Science. Part B. Polymer Physics* (Wiley).
- 1997-present Member of Editorial Review Board, *Journal of the Mechanics of Time Dependent Materials*.
- 1990-present Member of Editorial Review Board, *Journal of Rheology*.

2005 Served as Local Arrangements Chair, Society of Rheology 76th Annual Meeting, Lubbock, TX, Feb. 13-17 2005.

2001-2004 Served as Department Chair, Department of Chemical Engineering, TTU

2001-present Vice-chair for Gordon Research Conference on Elastomers, Networks and Gels (2003 meeting). Chair of conference 2005 meeting.