CURRICULUM VITAE

Sandra C. Greer
Professor, Department of Chemistry
Mills College

PERSONAL INFORMATION

Name:	Sandra Charlene Thomason Greer
Mailing address:	Department of Chemistry, Mills College 5000 MacArthur Boulevard Oakland, CA 94613
Education:	B.S., Furman University, Magna cum laude Major: Chemistry; Minor: Mathematics
	M.S., The University of Chicago, Physical Chemistry
	Ph. D., The University of Chicago, Chemical Physics Advisor: Lothar Meyer Thesis: "Binary Phase Diagrams of Van der Waals Solids"
Professional societies:	American Chemical Society American Physical Society (Fellow, 1987) Association for Women in Science American Association for the Advancement of Science (Fellow, 1995) Phi Beta Kappa Sigma Xi Phi Kappa Phi Omicron Delta Kappa

POSITIONS

1969-1978	Research Chemist, Heat Division, National Bureau of Standards, Gaithersburg, MD
1978-1983	Associate Professor, Department of Chemistry, The University of Maryland College Park

1983-2008 Professor, Department of Chemistry and Biochemistry, The University of Maryland College Park

1985-1986 Program Director for Structural Chemistry and Thermodynamics, National Science Foundation, Washington, DC

1986-1988 Associate Chair for Graduate Studies, Department of Chemistry and Biochemistry, The University of Maryland College Park

July, 1990 Professeur Invitée, Université de Paris - Sud, Orsay, France

1990-1993 Chair, Department of Chemistry and Biochemistry The University of Maryland College Park

1995-2008 Professor, Department of Chemical and Biomolecular Engineering The University of Maryland College Park

2008-present Professor Emerita, Department of Chemical and Biomolecular Engineering, The University of Maryland College Park

2009-present Professor Emerita, Department of Chemistry and Biochemistry, The University of Maryland College Park

2008-2013 Provost and Dean of the Faculty, Mills College

2008-present Professor of Chemistry, Mills College

2014-2017 Scheffler Pre-Health Science Chair in Chemistry, Mills College

RECOGNITIONS AND AWARDS

1962-1963 General Motors Scholar, Furman University
1963-1966 National Merit Scholar, Furman University
1966-1967 Woodrow Wilson Fellow, The University of Chicago
1969 American Association of University Women Postdoctoral Fellowship (declined).
1977 Washington Academy of Sciences Physical Sciences Award
1978 Phi Beta Kappa Alumna Member, Furman University
1987 The University of Maryland College Park Colleges of Agriculture and Life Sciences Award for Excellence in Research, 1987.
1988 Omicron Delta Kappa National Leadership Honor Society, Faculty Member

1990 The University of Maryland College Park Colleges of Agriculture and Life Sciences Award for Excellence in Service
1994 The University of Maryland College Park Distinguished Faculty Research Fellowship Award
1995 University of Maryland College Park Woman of Influence Award
1996 Professional Service Award of the Washington Professional Chapter of Alpha Chi Sigma Chemistry Fraternity
1996 University of Maryland College Park Celebrating Teachers Award
1998 University of Maryland College Park, Distinguished Scholar-Teacher Award
1999 University of Maryland College Park, Award for Distinguished Service to the Diversity Initiative
1999 University of Maryland Student Chapter, American Institute of Chemical Engineers Outstanding Faculty of the Year Award
2004 American Chemical Society Francis P. Garvan-John M. Olin Medal
2004 University of Maryland College Park General Research Board Award
2005 Election to Phi Kappa Phi Academic Honor Society, University of Maryland Chapter
2008 The E. Poole and Kent Teaching Award for Senior Faculty, A. James Clarke School of Engineering, University of Maryland College Park
2008 Pride Award; Lesbian, Gay, Bisexual, and Transgender Community; University of Maryland College Park
2008 The William E. Kirwan Award for Excellence in Undergraduate Education, The University of Maryland College Park
2011 A. James Clarke School of Engineering Wall of Commitment Award (name engraved on wall at University of Maryland College Park)
2014 American Chemical Society Award for Encouraging Women into Careers in the Chemical Sciences, sponsored by the Camille and Henry Dreyfus Foundation

TEACHING

Courses taught at the University of Maryland College Park

Year	Title	No.	Credit hrs.	Typical Enrollment
1978, 1979, 1986 - 1989	Chemical Thermodynamics	CHEM684	3	20
1979, 1980	Statistical Mechanics	CHEM687	3	5
1980, 1981	Physical Chemistry I	CHEM481	3	65
1981, 1982	Physical Chemistry II	CHEM482	3	75

1983	Electronics for Chemists	CHEM498C	3	20
1983, 1984	Physical Chemistry Lab I	CHEM483	2	127
1983, 1984	Physical Chemistry Lab II	CHEM484	2	23
1994	General Chemistry	CHEM103	3	180
1995-2008	Ethics in Science and Engineering	CHEM498 ENCH468E	3	15
1995-1996	Chemical Engineering Analysis	ENCH215	3	56
1997-1999 2006-2008	Chemical Process Thermodynamics	ENCH300	3	45
2001, 2003	Statistics and Design of Experiments	ENCH648G	3	13
2001-2008	General Chemistry for Engineers	CHEM135	3	270

<u>Courses taught at Mills College</u>

2009	General Chemistry I	CHEM 017	30
2013	Thermodynamics	CHEM 136	20
2013-14	Sabbatical		
2014-15	General Chemistry I-PB Chemistry of Cooking Introduction to Mathematics	CHEM 017 CHEM 011 MATH 001	

Supervision of student research at the University of Maryland College Park

Undergraduate research

Gregory Furrow, 1981-82 (CHEM 399)
Karen Gruner, 1982-83 (PHYS 399)
Stephanie Lenzenweger, 1989-90 (CHEM 399)
Matthew Nowakowski, 1995-96 (ENCH 468)
Keli Renoud, 1995-96 (CHEM 399)
Corrie Young, 1996 Office of Undergraduate Studies Senior Summer Scholarship and 1996-97 Women in Engineering Research Fellowship
Lawrence Schein, American Chemical Society POLYED Undergraduate Summer Scholarship for Research in Polymer Science, 1996
Matthew Retzer, 1997-99 (ENCH 468)
Michael Allessi, 1999-2000 (ENCH 468)
Katie C. Bittner, Chemistry Rollinson Fellow (2001-2002); Howard Hughes Fellow (2002-2003); RISE Fellow (2003)
Christopher McDonald, Chemistry Rollinson Fellow (2002-2003)
Brittney Manvilla, Chemistry Rollinson Fellow (2003); Howard Hughes Fellow (2004-2006)
Geetika Nagpal, Computer Engineering, RISE Summer Fellow (2003)
Patricia Castellanos, Chemistry and Biochemistry, RISE Summer Fellow (2003), undergraduate research (2003-2004)
Merle Zimmerman (Spring and summer, 2004)
Stefanie Cohen, Chemical Engineering (Fall, 2004)
Sasha Knowlton, Chemistry Rollinson Fellow (2005-2006)
Stephanie Kowal, Chemistry, Fall, 2006
Evan Frank, Chemical and Biomolecular Engineering, 2006-2007

Graduate research

Barbara C. Miller, M.S. in Physical Chemistry, August, 1982.

George F. Kraus, Ph. D. in Geochemistry, August,1978-December, 1983. (Charles County Community College).

Robert Cohn, M. S. in Physical Chemistry, December, 1985 (Rockwell International).

June L. Tveekrem, Ph. D. in Chemical Physics, August, 1982-December, 1986. (Engineer, NASA, Greenbelt, MD).

Ellen M. Anderson, Ph. D. in Physical Chemistry, August, 1982-May, 1987. (Chemist, U. S. Food and Drug Administration).

Karen Gruner, Ph. D. in Physical Chemistry, August, 1983-May, 1988 (Postdoctoral position at UM Medical School; High school Physics teacher)

Jaime Ruiz-Garcia, Ph. D in Physical Chemistry, August,1985-December, 1989. (Postdoctoral position at UCLA; Professor, Universidad Autonoma de San Luis Potosi, Mexico; 1999 Humboldt Fellow)

B. Connie Allen, M. S. in Physical Chemistry, May, 1991.
(Ph. D. 1998, University of Maryland at Baltimore County;
NRC Postdoctoral Associate, NIST; Instructor, Yale University;
Provost, St. Augustine's College)

Kang-min Zheng, Ph. D. in Physical Chemistry, August, 1987-December, 1991. (Hughes Information Technology, Inc.)

Anna Ploplis Andrews, Ph. D. in Physical Chemistry, August, 1988-May, 1993. (Plastics Development Group, Ferro Corporation Technical Center, Independence, OH)

Kevin Andrews, Ph. D. in Physical Chemistry, August, 1988-May, 1994. (NineSigma, Inc.)

Srilekha Sarkar Das, Ph. D. in Chemical Physics, August, 1987-August, 1994 (last two years in Greer group). (Chemist, U. S. Food and Drug Administration).

Juewen Zhuang, Ph. D. in Chemical Physics, August, 1992,- September, 1996. (Project scientist, Hughes Information Technology, Inc.)

Robert Ivkov, Ph. D. in Physical Chemistry, September, 1993 -July,1997. (NRC NIST Postdoctoral Fellow 1997-98; Staff Scientist at NIST, 1998-200; Sensera Corp, 2001-2008; Johns Hopkins University)

Xiangyun Gu, M. S. in Chemical Engineering, January, 1996 - September, 1997. (Chemical engineer, IMAKE Software & Services, Inc.)

Marius Pruessner, M. S. in Chemical Engineering, 1998.

Priya Shantharaj Niranjan, Ph. D. in Analytical Chemistry, May, 1998-May, 2000. (Sabre, Inc., Southlake, TX)

Krishna Pendyala, Ph. D. in Chemical Engineering, May, 1997-August,2000. (Postdoctoral fellow, Institute of Paper Science and Technology, Georgia Institute of Technology; Instructor, Northern Virginia Community College)

Necois Peters, M. S. in Biochemistry, 2002 (Human Genome Sciences, Inc.).

Rudra Saurabh Shresth, Ph. D. in Physical Chemistry, May, 1996-July, 2002 (Research chemist, Unilever, Bangalore, India)

Justine Niamke, M. S. in Chemical Engineering, 2003-2004
(SAIC, Gaithersburg, MD)

Michael L. Alessi, M. S. in Chemical Engineering, 2002; Ph. D. in Chemical Engineering, August, 2004 (Engineer, Infineum International Ltd, Linden, NJ)

Jermey N. A. Mathews, Ph. D. in Chemical Engineering, 2002-2005
(Postdoctoral researcher, Howard University; Associate Editor, "Physics Today")

Christopher Ploetz, M. S. in Chemical and Biolomolecular Engineering, 2007-2008 (Engineer, Burns & McDonnell Engineering Co., Kansas City)

Bryna Clover Kumi, Ph. D. in Physical Chemistry, 2007-2010 (Instructor, Rowan University, Glassboro, NJ)

Postdoctoral supervision

Bikas K. Das (Ph. D, University of Pittsburgh), 1981-1982
Xin Wen, 2000-2001
Peter B. Yim (Ph. D., University of Maryland College Park), 2001-2003
Alexander I. Norman (Ph. D., University of Sheffield) 2005-2007 (Exxon Mobil Research and Engineering Co., Annandale, NJ)
Yiwei Fei (Professor, China University of Mining and Technology), 2005

RESEARCH

Publications

Articles in refereed journals (Names of graduate students are underlined; names of undergraduate students are in italics; postdoctoral associates are denoted "PD".)

(1) Sandra C. Thomason and Donald G. Kubler, "Acids as Derivatives of Aldehydes Prepared with Silver Oxides," J. Chem. Ed. 45, 546 (1968).
(2) C. S. Barrett, Lothar Meyer, Sandra C. Greer, and J. Wasserman, "Nitrogen-Oxygen Phase Diagram," J. Chem. Phys. 48, 2670-2673 (1968).
(3) Lothar Meyer, C. S. Barrett, and Sandra C. Greer, "Crystal Structure of Alpha-Fluorine," J. Chem. Phys. 49, 1902-1907 (1968).
(4) Sandra C. Greer, Lothar Meyer, and C. S. Barrett, "Argon-Methane Phase Diagram," J. Chem. Phys. 50, 4299-4304 (1969).
(5) Sandra C. Greer and Lothar Meyer, "CF_4: Crystal Structure and Solid Phase Diagram with Ar," J. Chem. Phys. 51, 4583-4586 (1969).
(6) S. C. Greer and L. Meyer, "The Crystal Structure and Thermal Expansion of Solid Methane," Zeit. f. Angew. Physik 27, 198-199 (1969).
(7) Sandra C. Greer and Lothar Meyer, "CD_4: Crystal Structure and Solid Phase Diagram with Ar," J. Chem. Phys. 52, 468-469 (1970).
(8) J. M. H. Levelt Sengers and Sandra C. Greer, "Thermodynamic Anomalies Near the Critical Point of Steam," Int. J. Heat Mass Transfer 15, 1865-1886 (1972).
(9) Sandra C. Greer, J. M. H. Levelt Sengers, and G. T. Furukawa, "Heat Capacity Near the Consolute Point in Solid CH_4 - Ar," J. Chem. Phys. 57, 5052-5058 (1972).
(10) Sandra C. Greer, "The CH_4 - Kr Solid Phase Diagram," Phys. Lett. 43A, 73-74 (1973).
(11) Sandra C. Greer, M. R. Moldover, and R. Hocken, "A Differential Transformer as a Position Detector in a Magnetic Densimeter," Rev. Sci. Inst. 45, 1462-1463 (1974).
(12) Sandra C. Greer, Thomas E. Block, and Charles M. Knobler, "Concentration Gradients in Nitroethane + 3-Methylpentane Near the Liquid-Liquid Critical Solution Point," Phys. Rev. Lett. 34, 250-253 (1975).
(13) Sandra C. Greer and R. Hocken, "Thermal Expansion Near a Critical Solution Point," J. Chem. Phys. 63, 5067-5072 (1975).
(14) Sandra C. Greer, "Coexistence Curves at Liquid-Liquid Critical Points: Ising Exponents and Extended Scaling," Phys. Rev. A 14, 1770-1780 (1976).
(15) R. Hocken, M. Horowitz, and S. C. Greer, "A Critical Anomaly in the Dielectric Constant of a Nonpolar Pure Fluid," Phys. Rev. Lett. 37, 964-967 (1976).
(16) Sandra C. Greer, "Coexistence Curve of D_2O + Deuterated Isobutyric Acid," Ber. Bunsen-Gesellschaft Physik. Chem. 81, 1079-1081 (1977).
(17) Sandra C. Greer, "Liquid-Liquid Critical Phenomena," Acc. Chem. Res. 11, 427-432 (1978).
(18) D. T. Jacobs and S. C. Greer, "Capacitance Cell for Liquids," Rev. Sci. Instrum. 51, 994-995 (1980).

(19) N. Nagarajan, A. Kumar, E. S. R. Gopal, and S. C. Greer, "Liquid-Liquid Critical Phenomena - The Coexistence Curve of n-Heptane + Acetic Anhydride," J. Phys. Chem. 84, 2883-2887 (1980).
(20) S. C. Greer and D. T. Jacobs, "Thermal Expansion Near the Upper Critical Solution Point for Polystyrene + Cyclohexane," J. Phys. Chem. 84, 2888-2890 (1980).
(21) J. V. Sengers, D. Bedeaux, P. Mazur, and S. C. Greer, "Behavior of the Dielectric Constant of Fluids Near a Critical Point," Physica 104A, 573-593 (1980).
(22) B. K. Das (PD) and S. C. Greer, "Analysis of the Coexistence Curve of Na + NH_3," J. Chem. Phys. 74, 3630-3632 (1981).
(23) D. T. Jacobs and S. C. Greer, "Dielectric Constant Anomaly Near the Critical Solution Point in Polystyrene + Cyclohexane," Phys. Rev. A 24, 2075-2083 (1981).
(24) *R. B. Strem*, B. K. Das (PD), and S. C. Greer, "A Digital Temperature Control and Measurement System," Rev. Sci. Instrum. 52, 1705-1708 (1981).
(25) B. K. Das (PD), G. F. Kraus, J. T. Siewick, and S. C. Greer, "Dielectric Constant of Undercooled Water," Proc. of the 8th Symp. on Thermophysical Properties (Am. Soc. Mech. Eng., N. Y., 1982), Vol. II, 324-327.
(26) B. C. Miller, E. A. Clerke, and S. C. Greer, "Thermal Expansion and Pressure Dependence of the Critical Temperature Near the Critical Solution Point of Benzonitrile + Isooctane," J. Phys. Chem. 87, 1063-1066 (1983).
(27) *G. P. Furrow* and S. C. Greer, "Critical Behavior of the Density, Heat Capacity, and Refractive Index for Triethylamine + Water," J. Chem. Phys. 79, 3474-3481 (1983).
(28) S. C. Greer, B. K. Das (PD), A. Kumar, and E. S. R. Gopal, "Critical Behavior of the Diameters of Liquid-Liquid Coexistence Curves," J. Chem. Phys. 79, 4545-4552 (1983).
(29) G. F. Kraus and S. C. Greer, "The Vapor Pressures of Supercooled H_2O and D_2O," J. Phys. Chem. 88, 4781-4785 (1984).
(30) E. M. Anderson and S. C. Greer, "Chemical Reactions Near Critical Points: The Dissociation of Weak Acids," Phys. Rev. A 30, 3129-3135 (1984).
(31) S. C. Greer, "Thermal and Chemical Relaxations Near the Critical Point of Chlorine," Phys. Rev. A 31, 3240-3246 (1985).
(32) S. C. Greer, "The Density of Deuterated Isobutyric Acid Between 11 and 30 °C," J. Chem. Eng. Ref. Data 31, 272-273 (1986).
(33) S. C. Greer, "The Dielectric Constant of Liquid Sulfur," J. Chem. Phys. 84, 6984-6988 (1986).
(34) R. H. Cohn and S. C. Greer, "The Dielectric Constant near the Liquid-Liquid Critical Point in Perfluoromethylcyclohexane + Carbon Tetrachloride," J. Phys. Chem. 90, 4163-4166 (1986).
(35) J. L. Tveekrem, R. H. Cohn, and S. C. Greer, "The Effect of Critical Fluctuations on Chemical Equilibrium," J. Chem. Phys. 86, 3602-3606 (1987).
(36) K. Gruner and S. C. Greer, "The Density of Polystyrene in Diethyl Malonate in the One-Phase and Two-Phase Regions Near the Critical Solution Point," Macromolecules 20, 2238-2240 (1987).
(37) J. L. Tveekrem, S. C. Greer, and D. T. Jacobs, "The Dielectric Constant Near the Liquid-Liquid Critical Point for Polystyrene in Diethyl Malonate," Macromolecules 21, 147-153 (1988).
(38) E. M. Anderson and S. C. Greer, "The Liquid-Liquid Phase Diagram of Sulfur + Biphenyl," J.

Chem. Phys. 88, 2666-2671 (1988).
(39) S. C. Greer, "Chemical Reactions and Phase Transitions," Intl. J. Thermophysics 9, 761-768 (1988).
(40) J. Ruiz-Garcia, E. M. Anderson, and S. C. Greer, "The Shear Viscosity of Liquid Sulfur Near the Polymerization Temperature," J. Phys. Chem. 93, 6980-6983 (1989).
(41) S. C. Greer, T. K. Bose, and J. Thoen, "The Density Near a Critical Composition of the AOT-Water-Decane Microemulsion," J. Chem. Phys. 91, 620-621 (1989).
(42) K. Gruner, S. Habib, and S. C. Greer, "The Shear Viscosity and the Mass Density near the Liquid-Liquid Critical Point of Polystyrene in Diethyl Malonate," Macromolecules 23, 510-515 (1990).
(43) J. Ruiz-Garcia and S. C. Greer, "A Symmetric Tricritical Point in a Living Polymer System," Phys. Rev. Lett. 64, 1983-1985 (1990); Erratum, Phys. Rev. Lett. 64, 3204 (1990).
(44) K. M. Zheng and S. C. Greer, "The Density of Liquid Sulfur Near the Polymerization Temperature," J. Chem. Phys. 96, 2175-2182 (1992).
(45) K. M. Zheng and S. C. Greer, "Living Poly(α-Methylstyrene) Near the Polymerization Line: 1. Mass Density and Polymerization Line for Solutions in Tetrahydrofuran," Macromolecules 25, 6128-6136 (1992).
(46) P. Pfeuty, F. Boué, J. P. Ambroise, R. Bellissent, K. M. Zheng, and S. C. Greer, "Small Angle Neutron Scattering from a Living Polymer Solution: Preliminary Experiment," Macromolecules 25, 5539-5541 (1992).
(47) K. M. Zheng, S. C. Greer, L. R. Corrales, and J. Ruiz-Garcia, "Living Poly(α-Methylstyrene) Near the Polymerization Line: 2. Phase Diagram in Methylcyclohexane," J. Chem. Phys. 98, 9873-9880 (1993).
(48) A. Ploplis Andrews, K. P. Andrews, S. C. Greer, F. Boué, and P. Pfeuty, "Living Poly(α-Methylstyrene) Near the Polymerization Line: 3. Small Angle Neutron Scattering," Macromolecules 27, 3902-3911 (1994).
(49) S. Sarkar Das, A. Ploplis Andrews, and S. C. Greer, "Living Poly(α-Methylstyrene) Near the Polymerization Line: 4. Extent of Polymerization as a Function of Temperature," J. Chem. Phys. 102, 2951-2959 (1995).
(50) D. T. Jacobs and S. C. Greer, "On the Amplitude of the Anomaly in the Mass Density Near a Liquid-Liquid Critical Point," Phys. Rev. E 54, 5358-5363 (1996).
(51) J. Ruiz-Garcia and S. C. Greer, "Living Poly(α-Methylstyrene) Near the Polymerization Line: Shear Viscosity in Tetrahydrofuran, J. Mol. Liq. 71, 209-224 (1997).
(52) J. Zhuang, S. Sarkar Das, *M. Nowakowski*, and S. C. Greer, "Living Poly(α-Methylstyrene) near the Polymerization Line. 6. Chemical Kinetics," Physica A 244, 522-535 (1997).
(53) J. Zhuang, A. Ploplis Andrews, and S. C. Greer, "Living Poly(α-Methylstyrene) near the Polymerization Line. 5. Heat Capacity as a Function of Temperature," J. Chem. Phys. 107, 4705-4710 (1997).
(54) Robert Ivkov, Jeffrey G. Forbes, and Sandra C. Greer, "The Polymerization of Actin: Study by Small Angle Neutron Scattering," J. Chem. Phys. 108, 5599-5607 (1998).
(55) Sandra C. Greer, "The Physical Chemistry of Equilibrium Polymerization," J. Phys. Chem. B 102, 5413-5422 (1998).

(56) S. Sarkar Das, Jeuwen Zhuang, A. Ploplis Andrews, S. C. Greer, C. M. Guttman, and W. Blair, "Living Poly(α- Methylstyrene) near the Polymerization Line. 7. Molecular Weight Distribution in a Good Solvent," J. Chem. Phys. 111, 9406-9417 (1999).
(57) M. D. Pruessner, *M. E. Retzer*, and S. C. Greer, "Phase Separation Curves of Poly(α-Methylstyrene) in Methylcyclohexane," J. Chem. Eng. Data, 44, 1419-1421 (1999).
(58) Priya S. Niranjan, Jeffrey G. Forbes, and Sandra C. Greer, "Effect of Glass on the Polymerization of G-actin to F-actin," Biomacromolecules, 1, 506-508 (2000).
(59) Krishna Pendyala, Xiangyun Gu, Kevin P. Andrews, Karen Gruner, D. T. Jacobs, and S. C. Greer, "Living Poly(α-Methylstyrene) Near the Polymerization Line: 8. Mass density, Viscosity, and Surface Tension in Tetrahydrofuran," J. Chem. Phys. 114, 4312-4322 (2001).
(60) Priya S. Niranjan, Jeffrey G. Forbes, Sandra C. Greer, Jacek Dudowicz, Karl F. Freed, and Jack F. Douglas, "Thermodynamic Regulation of Actin Polymerization," J. Chem. Phys. 114, 10573-10576 (2001).
(61) Krishna Pendyala, D. T. Jacobs, and S. C. Greer, "Poly(α-Methylstyrene) in Methylcyclohexane: Densities and Viscosities Near the Liquid-Liquid Critical Point," J. Chem. Phys. 115, 9995-10000 (2001).
(62) R. Saurabh Shresth, *R. Christopher McDonald*, and Sandra C. Greer, "Molecular Weight Distributions of Polydisperse Polymers in Coexisting Liquid Phases," J. Chem. Phys. 117, 9037-9049 (2002).
(63) Priya S. Niranjan, Peter B. Yim (PD), Jeffrey G. Forbes, Sandra C. Greer, Jacek Dudowicz, Karl F. Freed, and Jack F. Douglas, "The Polymerization of Actin: Thermodynamics Near the Polymerization Line," J. Chem. Phys. 119, 4070-4084 (2003).
(64) Michael L. Alessi, *Katie C. Bittner*, and Sandra C. Greer, "Eight-arm Star Polystyrene in Methylcyclohexane: Cloud Point Curves, Critical Line, Coexisting Densities and Viscosities," J. Poly. Sci. B - Poly. Phys. 42, 129-145 (2004).
(65) Alexander I. Norman (PD), Robert Ivkov, Jeffrey G. Forbes, and Sandra C. Greer, "The Polymerization of Actin: Structural Changes from Small Angle Neutron Scattering," J. Chem. Phys. 123, 154904/1 - 154904/11 (2005).
(66) Jermey N. A. Matthews, Peter B. Yim (PD), Donald T. Jacobs, Neçoise D. Peters, Jeffrey G. Forbes, and Sandra C. Greer, "The Polymerization of Actin: Extent of Polymerization under Pressure, Volume Change of Polymerization, and Relaxation after Temperature Jumps," J. Chem. Phys. 123, 074904/1 - 074904/11 (2005).
(67) Michael L. Alessi, Alexander I. Norman (PD), Derek L. Ho, *Sasha E. Knowlton* and Sandra C. Greer, "Helical and Coil Conformations of Poly(ethylene glycol) in Isobutyric Acid," Macromolecules 38, 9333-9340 (2005).
(68) *Patricia Castellanos*, Alexander I. Norman (PD), and Sandra C. Greer, "Conformational Change of Poly(Ethylene Glycol) near the Critical Point of Isobutyric Acid + Water," J. Phys. Chem. B 110, 22172-22177 (2006).
(69) Alexander I. Norman (PD), Yiwei Fei, Derek L. Ho, and Sandra C. Greer, "Folding and Unfolding of Polymer Helices in Solution," Macromolecules 40, 2559-2567 (2007).
(70) Alexander I. Norman (PD), Derek L. Ho, and Sandra C. Greer, "Partitioning, Fractionation,

and Conformations of Star Poly(ethylene glycol) in Isobutyric Acid + Water," Macromolecules 40, 9628-9639 (2007).
(71) Alexander I. Norman (PD), *Brittney A. Manvilla*, *Evan L. Frank*, Justine N. Niamke, Grant D. Smith, and Sandra C. Greer, "Partitioning of Poly(ethylene oxide), Poly(ethylene imide), and Bovine Serum Albumin in Isobutyric Acid + Water," Macromolecules 41, 997-108 (2008).
(72) Christopher D. Ploetz and Sandra C. Greer, "Micelles of Polybutadiene-*b*-Poly(ethylene oxide) in Methanol, Cyclohexane, and Methanol + Cyclohexane," Langmuir 25, 13402–13411 (2009).
(73) *Alison Huff, Kelly Patton, Hosanna Odhner*, Donald T. Jacobs, Bryna C. Clover, and Sandra C. Greer, "Micellization and Phase Separation for Triblock Copolymer 17R4 in H_2O and in D_2O, Langmuir 27, 1707-1712 (2011).
(74) Bryna C.Kumi and Sandra C. Greer, "Micelles of Polybutadiene-*b*-Poly(Ethylene Oxide) in Deuterated Methanol and Deuterated Cyclohexane," J. Coll. Interface Sci. 386, 212–217 (2012).
(75) Bryna C. Kumi, Boualem Hammouda, and Sandra C. Greer, "Self-assembly of the Triblock Copolymer 17R4 Poly(propylene oxide)$_{14}$ - Poly(ethylene oxide)$_{24}$ - Poly(propylene oxide)$_{14}$ in D_2O," J. Coll. Interface Sci., 434, 201-207 (2014).

Chapters in books, invited papers
(1) Sandra C. Greer, "Order-Disorder Phenomena," Encyclopedia of Physics, ed. by R. G. Lerner and G. L. Trigg (Addison-Wesley, NY, 1980), pp. 720-722.
(2) S. C. Greer and M. R. Moldover, "Thermodynamic Anomalies at Critical Points of Fluids," Ann. Rev. Phys. Chem. 32, 233-265 (1981).
(3) S. C. Greer, "The Measurement and Control of Temperature," in Building Scientific Apparatus, by J. H. Moore, C. C. Davis, and M. A. Coplan (First edition, Addison-Wesley, Reading, Mass, 1988, Second edition, Addison-Wesley, Reading, Mass, 1991;Third Edition, Perseus, Cambridge, 2002; Fourth edition, Cambridge, 2009).
(4) S. C. Greer, “Living Polymers,” Comp. Matls. Sci. 4, 334-338 (1995).
(5) S. C. Greer, "Living Polymers," Advances in Chemical Physics XCIV, 261-296 (1996).
(6) S. C. Greer, “Reversible Polymerizations and Aggregations,” Ann. Rev. Phys. Chem. 53, 173-200 (2002).

Book reviews, notes, etc.
(1) Sandra C. Greer, "Review of An Introduction to Statistical Physics by W. G. V. Rossiter," J. Stat. Phys. 29, 643 (1982).
(2) Sandra C. Greer, "Review of Statistical Mechanics by Shang-keng Ma," J. Stat. Phys. 41, 1045 (1985).
(3) Sandra C. Greer, "Review of The Theory of Thermodynamics by J. R. Waldrum," J. Stat. Phys. 44, 701 (1986).
(4) Sandra C. Greer, "Review of Statistical Mechanics by B. K. Agarwal and Melvin Eisner," J. Stat. Phys. 56, 557 (1989).
(5) Sandra C. Greer, “Truth and Justice in Science,” Hexagon, Winter, 1996, 67-69.
(6) Sandra C. Greer, “Education for Humility,” Huffington Post Blog, December 17, 2012.

http://www.huffingtonpost.com/sandra-greer/education-for-humility_b_2316238.html

Abstracts and other professional papers presented in recent years

Alexander I. Norman, Robert Ivkov, Jeffrey G. Forbes, and Sandra C. Greer, "The Polymerization of Actin: Structural Changes from Small Angle Neutron ScatterIng," Middle Atlantic Regional ACS Meeting, Rutgers University, May 22-25, 2005.

Alexander I. Norman, Robert Ivkov, Jeffrey G. Forbes, and Sandra C. Greer, "Polymerization of Actin: Structural Changes from Small-Angle Neutron Scattering", Poster, Gordon Conference on Liquids, Holderness, NH, July 24-29, 2005.

Alexander I. Norman, Robert Ivkov, Jeffrey G. Forbes, and Sandra C. Greer, "Polymerization of Actin: Structural Changes from Small-Angle Neutron Scattering", 230th ACS National Meeting, in Washington, DC, Aug 28-Sept 1, 2005.

Michael L. Alessi, Alexander I. Norman, Sasha Knowlton, and Derek L. Ho, and Sandra C. Greer "Helical and coil conformations of poly(ethylene glycol) in isobutyric acid and water," 230th ACS National Meeting, in Washington, DC, Aug 28-Sept 1, 2005.

Alexander I. Norman, Robert Ivkov, Jeffrey G. Forbes, and Sandra C. Greer, "The Polymerization of Actin: Structural Changes from Small Angle Neutron Scattering," National Meeting of the American Institute of Chemical Engineers, Cincinnatti, OH, Oct 31, 2005.

Alexander I. Norman, Yiwei Fei, Derek Ho, and Sandra C. Greer, "The Formation and Stability of Polymer Helices in Solution," Gordon Research Conference on Polymer Physics, poster, July, 2006.

Alexander I. Norman, Yiwei Fei, Derek Ho, and Sandra C. Greer, "Coil and Helical Conformations of Poly(ethylene Oxide) and Poly(ethylene Imine) in Solution," National Meeting of the American Institute of Chemical Engineers, San Francisco, CA, November 15, 2006.

Christopher D. Ploetz and Sandra C. Greer, "Micelles of Polybutadiene-b- Poly(ethylene oxide) in Methanol, Cyclohexane, and Methanol + Cyclohexane," 17th Symposium on Thermophysical Properties, National Institute of Standards and Technology, Boulder, CO, June 22-26, 2009.

Bryna Clover, Donald Jacobs, Boualem Hammouda, and Sandra C. Greer, "Small Angle Neutron Scattering Study of Micellar Transitions in Pluronic 17R4," 17th Symposium on Thermophysical Properties, National Institute of Standards and Technology, Boulder, CO, June 22-26, 2009.

Donald Jacobs, Kelly Patton, Bryna Clover and Sandra Greer, "Micellization and Phase Transitions in a Triblock Copolymer-Water System," 17th Symposium on Thermophysical Properties, National Institute of Standards and Technology, Boulder, CO, June 22-26, 2009.

Contracts and grants in recent years

National Institutes of Health, "The Thermodynamics and Structure of Polymerizing Actin," April 1, 1999 - May 31, 2003; $466,402. Equipment supplement of $25,000.

Petroleum Research Fund, "Polymers in Solution: Phase Transitions and Polymer Architectures," July 1, 1999 - August 31, 2002; $60,000.

National Science Foundation, "The Physical Chemistry of Multicomponent Polymer Solutions: Complex Nanostructures and Coupled Phase Transitions;" July 1, 2001 - June 30, 2004; $355,000.

National Science Foundation, "The Physical Chemistry of Aqueous Polymer Solutions: Complex Nanostructures and Coupled Phase Transitions;" August 16, 2004 - August 15, 2007; $418,721.

National Science Foundation - Ethics Education in Science and Engineering, "Maryland Initiative On Research Ethics," Sandra C. Greer, Robert J. Dooling, Arthur N. Popper; September 1, 2006 - August 31, 2009; $198,344.

Petroleum Research Fund, "Micelles in Partially Miscible Solvents," January 1, 2008 - August 31, 2010; $100,000.

The Camille and Henry Dreyfus Foundation Special Grant Program in the Chemical Sciences, "Chemistry Course for Non-Science Majors: Water: From the Molecule to the Atmosphere," $30,000, submitted August, 21014; pending.

The Henry Luce Foundation, " Clare Boothe Luce Undergraduate Scholarships for Women in Science," $300,000, submitted August, 2014; pending.

Invited seminars in recent years

"Poly(ethylene oxide) in solution: A scientific adventure," David Chandler Birthday Symposium, University of California at Berkeley, January 9, 2005.

"The polymerization of the protein actin," School of Polymer, Textile, and Fiber Engineering, Georgia Institute of Technology, Atlanta, GA, April 4, 2005.

"Poly(ethylene oxide) in solution: A scientific adventure," School of Chemistry and Biochemistry, Cherry Emerson Jr. Seminar, Georgia Institute of Technology, Atlanta, GA, April 5, 2005.

"Poly(ethylene oxide) in solution: A scientific adventure," The University of California at Los Angeles, May, 2005.

"Thermodynamics and structure of polymerizing actin,"Department of Chemistry and Biochemistry, University of Maryland Baltimore County, February 28, 2006,

"Advancement of women chemists," Women Chemists Committee of the Maryland Section of the American Chemical Society, March 3, 2006.

"Thermodynamics and structure of polymerizing actin," Department of Chemical and Biomolecular Engineering, Purdue University, March 7, 2006.

"Thermodynamics and structure of polymerizing actin," Biophysics Symposium, National Meeting of the American Physical Society, Baltimore, MD, March 17, 2006.

"Ethical issues of a working scientist," Physics Department, The College of Wooster, Wooster, OH, July 13, 2006; June 28, 2007; June 11, 2008.

"The polymerization of actin," Department of Chemistry, The University of Oregon, Eugene, OR, April 23, 2007.

"Ethical issues of a working scientist," Chesapeake Biological Laboratory, Solomon's Island, MD, September 11, 2007.

"Folding and unfolding of simple polymers in solution," Berkeley Mini Stat Mech Meeting, January 11-13, 2008.

"Micelles of Polybutadiene-*b*-Poly(ethylene oxide) in Methanol, Cyclohexane, and Methanol + Cyclohexane," 17th Symposium on Thermophysical Properties, Boulder, CO, June 22, 2009.

"Academic Management in a Liberal Arts College," guest lecturer in course, "Higher Education Leadership and Administration, School of Education, Stanford University, April 6, 2011 and May 2, 2012.

"Education for Humility," Convocation Address, Mills College, September, 2012. See video at: http://www.youtube.com/watch?v=5W0KTLEpj-o&feature=youtube_gdata_player

"Now What? Refections and Hopes in 2014," Award address, American Chemical Society Award for Encouraging Women into Careers in the Chemical Sciences, sponsored by the Camille and Henry Dreyfus Foundation, Dallas, March, 2014.

"Sacred Possibilities: Inclusion as an Ethical Issue, " Symposium on Encouraging Disadvantaged Students into Careers in the Chemical Sciences in Honor of Rigoberto Hernandez, American Chemical Society, San Francisco, August, 2014.

SERVICE

Service at Mills College

2008-09 Chair, Search Committee for Director of the Art Museum

2009-10 Chair, Search Committee for Dean of the Lorey I. Lokey Graduate School of Business

2010-11 Member, Presidential Transition Committee
Member, Presidential Inauguration Committee
Chair, Committee on Electronic Course Evaluations

2011-12 Chair, Mills College Budget Committee
Member, Search Committee for Vice-President for Finance
Chair, Search Committee for Dean of Student Life
Advisor, Provost's Book Club Living Learning Community (11 students)

2012-13 Co-chair, Mills College Budget Committee
Chair, Course Credit Transition Committee
Convocation speaker: "Education for Humility"

2008-2013 Speaker, Hellman Science Program, "Women in Science"

Key external service

Co-chair, NSF Workshop on the Future of Physical Chemistry,
University of Illinois, September, 1987

Member, Board of Associate Editors, The Journal of Chemical Physics, 1987-1989

Chair, Gordon Conference on the Chemistry and Physics of Liquids, August, 1989

Panel member, Triennial Oversight Review of NSF Division of Chemistry, 1992

Panel member, Graduate Research Traineeship Proposals, NSF Division of Chemistry,
October 22-23, 1992

Panel member, American Council on Education/National Identification Program,
"Campus Climates: Healthy or Harmful for Women," Annapolis, MD, February 1, 1994

Member of Steering Committee and Conference Chair, Mills College
Women in Science Summit, October 17,1994

Member, American Chemical Society Award Committee for the Award for
Encouraging Women in Careers into the Chemical Sciences, 1994-96

Presentation, Committee on Equal Opportunities in Science and Engineering on Mills
College Women in Science Summit, National Science Foundation, October 21, 1994;
American Association for the Advancement of Science, Atlanta, GA, February 19, 1995

Panel member, Association of American Colleges and Universities and the

University of Washington Conference on Transforming the Curriculum: Incorporating Race and Gender, November 2-5, 1995, Seattle, WA

Panel member, National Research Council Associateship Program Evaluation Panel, 1996-2001

Panel member, National College Women's Leadership Association, June 8,1996
Panel member, National Science Foundation Graduate Research Fellowships, February 7-9, 1997

Invited participant, National Academy of Sciences Planning Workshop for a Guide to Teaching Responsible Science, February 26, 1997

Member, American Physical Society - Division of High Polymer Physics Fellowship Committee, 1997-1999

Panel member, "Women's Leadership: Changing Concepts of Power, " American Association of Colleges and Universities, Washington, DC, November 14, 1997

Panel member, "Women in the Scientific Workforce," Chemical Sciences Roundtable, National Academy of Sciences, May 28, 1998

Member, Selection Committee, ACS Award in Polymer Chemistry, 1998-2001

Member, Advisory Group, Committee on the Advancement of Women in the Chemical Sciences, sponsored by the Dreyfus Foundation, NSF, and DOE through the University of Oregon, 1998- 2008

Discussion Leader, Workshop on Women in the Chemical Sciences, Chemical Sciences Roundtable, National Research Council, NAS, May 3-4, 2000

Panel Member, NSF Collaborative Research in Chemistry Program, April 22-24, 2002

Member, Steering Committee to review postdoctoral program, Chemistry Division, National Science Foundation, 2003

Member, Centers for Chemical Bonding Review Panel, NSF, June 3-4, 2004

Member, Selection Committee, Francis P. Garvan - John M. Olin Medal, American Chemical Society, 2004

Panel member, NIH Minority Biomedical Research Support Review Panel, February17-18, 2005, Bethesda, MD

Panel member, NSF Discovery Corps Fellowship Competition, February 24-25, 2005

Panel member, NSF Director's Award for Distinguished Teaching Scholars Competition, March 8-9, 2005
Panel member, Technology Development Fellowship Review Panel, NIH, March 9-10, 2006 (7 written reviews)

Panel member, NSF Advance Competition, May 23-24, 2006 (15 written reviews)

Panel member, Selection Committee for the 2007 American Physical Society Polymer Physics Prize

Panel member, NSF Ethics Education in Science and Engineering Competition, May 23-24, 2007 (13 written reviews)

Council of Independent Colleges Chief Academic Officers Task Force, 2012 - 13

Service at the University of Maryland, College Park

Department, recent years

2005-2006 Chemistry and Biochemistry
Chair, Faculty Advisory Committee
Member, Facilities, Space, and Resources Committee
Advisory Board, HHMI Chemistry Demonstrations Project
Member, Associate Professor Mentoring Committee
Chemical and Biomolecular Engineering
Chair, Committee for Promotion to Full Professor
Salary Review Committee

2006-2007 Chemical and Biomolecular Engineering
Chair, Committee for Promotion to Associate Professor
Chair, Search Committee for Assistant Professors
Salary Review Committee

2007-2008 Chemistry and Biochemistry
Member, Associate Professor Mentoring Committee

College, key service, recent years

2004-2005 School of Engineering:

Member, Faculty Search Committee, Bioengineering Program

2005-2006 School of Engineering:
Member, Committee to Study Time to Ph. D. Degree

2006-2008 College of Chemical and Life Sciences
Co-leader, Workshop on Mentoring for Assistant Professors

Campus, key service

1984-85 Academic Planning Advisory Committee
Search Committee for Vice-President for Institutional Advancement
Campus Promotion and Tenure Committee

1986-87 Academic Planning Advisory Committee

1987-88 Search Committee for Director of the Institute for Physical Science and Technology
Chair, Chancellor's Committee on Undergraduate Women's Education

1988-89 President's Committee on Undergraduate Women's Education
Steering Committee for the College Park Enhancement Plan

1989-90 Committee to Approve Core Courses in Science and Mathematics
President's Committee on Undergraduate Women's Education
Review Committee, Department of Human Nutrition and Food Science
Committee on the Policy for Appointments, Promotion, and Tenure
Committee on the Presidential Inauguration

1990-91 President's Committee on Undergraduate Women's Education

1991-92 Committee to Plan the Elimination of the College of Human Ecology
President's Committee on Undergraduate Women's Education
Middle States Accreditation Internal Review Committee
Search Committee for the Director of Environmental Safety

1992-93 Committee to Advise the Provost on Appointments of Assistant and Associate Deans
Search Committee for an Assistant Vice-President for Planning

1993-94 Advisory Board, Diversity Program, Office of Human Relations

Search Committee for the Chair of the Department of Chemical Engineering
Selection Committee, Curriculum Transformation Project
Search Committee for an Associate Provost for Planning
President's Committee for Promotion and Tenure Appeals

1994-95 Advisory Board, Diversity Program, Office of Human Relations
1995-96 Advisory Board, Diversity Program, Office of Human Relations
Member, Special Advisory Panel for a Graduate Student Appeal
Member, Committee on Research, Middle Atlantic Accreditation Review
Member, Distinguished Faculty Research Fellowship Selection Committee, The Graduate School

1996-97 Advisory Board, Diversity Program, Office of Human Relations
Member, Commission on Women's Issues

1996-2000 Member, Selection Committee, Distinguished University Professorships
1997-1998 Member, Commission on Women's Issues
Member, Administrative Review Committee for the Animal Care and Use

1998-1999 Member, Kirwan Award Committee
Panel member, 25th Anniversary of the President's Commission on Women's Issues

1999-2000 Member, Selection Committee, Distinguished Scholar-Teacher Awards

2000-2001 Member, Philosophy Department Task Force on Women and Minorities
Participant, Campus Retreat on Ethics, April 20, 2001.

2001-2003 Member, President's Commission on Gay, Lesbian, Bisexual, and Transgender Issues

2003-2004 Panel member, "Homophobia and Education," College Student Personnel Program, EDCP 789I, April 20, 2004

2004-2005 Member, Search Committee for Director of Lesbian, Gay, Bisexual, and Transgender Studies
Member, Search Committee for Director of White Memorial Library

2005-2007 Member, University Library Council
Member, Kirwan Undergraduate Award Selection Committee

2006-2007 Member, Intellectual Property Advisory Committee
Member, Selection Committee, Distinguished Scholar-Teachers
Member, University Library Council
Member, Selection Committee, Ann G. Wylie Dissertation Fellowships

2007-2008 Member, Intellectual Property Advisory Committee
Member, University Library Council

University of Maryland System

1988-89 Task Force on Statewide Graduate Education and Research
Search Committee for the President of UMCP

1991-92 Search Committee for Director, Center for Advanced Research in Biotechnology