

## Curriculum Vitae—Glenn H. Fredrickson

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University of California  
Santa Barbara, CA 93106-5080

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### EDUCATION

9/81 - 9/84 Ph.D. Chemical Engineering, Stanford University, Stanford, CA  
9/80 - 9/81 M.S. Chemical Engineering, Stanford University, Stanford, CA  
9/77 - 9/80 B.S. Chemical Engineering, University of Florida, Gainesville, FL

### RESEARCH TOPICS AND INTERESTS

- Statistical mechanics
- Soft condensed matter theory
- Theoretical polymer physics
- Computational science and engineering
- Computational field theory
- Self-assembly principles in soft matter
- Design of polymeric materials
- Advanced polymer technologies
- Green chemistry
- Alternative energy technologies

### APPOINTMENTS

#### University of California, Santa Barbara, CA

1/04 - Mitsubishi Chemical Corporation Endowed Chair in Functional Materials  
3/01 - Director, Mitsubishi Chemical Center for Advanced Materials (MC-CAM)  
8/02- Director, Complex Fluids Design Consortium (CFDC)  
1/04 - 1/09 Associate Director, Materials Research Laboratory (MRL)  
5/98 - 7/01 Chair, Department of Chemical Engineering  
7/96 - 4/98 Vice-Chair, Department of Chemical Engineering  
9/95 - Director, Computing Facilities, Materials Research Laboratory (MRL)  
7/91 - Professor, Departments of Chemical Engineering and Materials  
7/91 - 1/99 Director, Macromolecular Science and Engineering Center (MACSE)  
1/90 - 6/91 Associate Professor, Departments of Chemical Engineering and Materials

#### Mitsubishi Chemical Holdings Corporation, Tokyo, Japan

4/09 - Executive Director, Member of the Board, the KAITEKI Institute, Inc.

#### AT&T Bell Laboratories, Murray Hill, NJ

7/89 - 1/90 Distinguished Member of Technical Staff  
10/84 - 7/89 Member of Technical Staff

## **Stanford University, Stanford, CA**

9/83 - 9/84      Lecturer, Department of Chemical Engineering

### **VISITING AND HONORARY APPOINTMENTS**

1/98 - 3/98      Visiting Scientist, The Dow Chemical Company, Midland, MI  
7/94              Professor Joliot Curie, City of Paris, France  
9/93              Visiting Miller Research Professor, Miller Institute, University of California, Berkeley, CA  
9/92 - 12/92     George T. Piercy Distinguished Professor in Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN  
7/91 - 9/91      Associate Researcher, C.N.R.S., Laboratoire de Physico-Chimie Theorique, E.S.P.C.I., Paris, France  
4/89              Visiting Scientist, Department of Physics, Johannes Gutenberg Universitat, Mainz, Germany  
10/88             Visiting Scientist, Department of Physics, Kyushu University, Fukuoka, Japan  
7/86              Visiting Scientist, Laboratoire de Physico-Chimie Macromoleculaire, E.S.P.C.I., Paris, France

### **HONORS AND AWARDS**

3/10              Collaboration Success Award, Council for Chemical Research  
11/09             Outstanding Referee, American Physical Society  
6/09              Fellow, American Institute of Chemical Engineers  
4/08              Cooperative Research Award in Polymer Science and Engineering, PMSE Division, American Chemical Society  
3/07              Polymer Physics Prize, American Physical Society  
2/03              Elected Member, National Academy of Engineering USA  
2/00              Creativity Extension, Materials Theory Program, National Science Foundation  
11/99             Ray W. Fahien Distinguished Alumni Award, Dept. of Chemical Engineering, University of Florida  
11/99             Alpha Chi Sigma Award, American Institute of Chemical Engineers  
11/98             Fellow, American Physical Society  
3/92              John H. Dillon Medal, American Physical Society  
2/92              Alfred P. Sloan Research Fellow  
4/91              Camille and Henry Dreyfus Teacher-Scholar Award  
4/90              Presidential Young Investigator Award, National Science Foundation  
9/89              Distinguished Technical Staff Award, AT&T Bell Laboratories  
9/82 - 8/84      Exxon Teaching Fellowship in Chemical Engineering, Stanford University  
8/80              Phi Kappa Phi, University of Florida

### **NAMED LECTURES**

5/09              Texas Distinguished Faculty Lecturer in Chemical Engineering, U. Texas, Austin  
10/08             Richard S. H. Mah Lectures in Modeling and Computation in Chemical and Biological Engineering, Northwestern University  
10/07             Institute for Multiscale Materials Studies Distinguished Lecturer, Los Alamos National Laboratory  
8/05              Warren L. McCabe Lecturer, Dept. of Chemical Engineering, North Carolina State University  
5/05              Aggarwal Lecture in Polymer Science, Cornell University

10/01 G. Stafford Whitby Memorial Lecturer, Dept. of Polymer Science, University of Akron  
11/92 George T. Piercy Lecture, Dept. of Chem. Engr. & Mat. Sci., U. Minnesota  
10/91 Allan P. Colburn Lecturer, Dept. of Chem. Engr., University of Delaware

## **UNIVERSITY SERVICE**

### **Campus and College (UCSB):**

Area II Representative to UCSB Academic Senate (90-91, 91-92)  
Advisory Committee, College of Engineering Computing Initiative (92-93)  
Advisory Committee, Institute for Polymers and Organic Solids (91-99),  
Chair (98-99)  
Advisory Committee, Center for Computational Sciences and Engineering  
(90-91, 91-92)  
Executive Committee, College of Engineering (93-94, 99-01), Chair (94-95)  
Administrative Committee, College of Engineering (96-01)  
Academic Senate Committee on Research (93-94)  
College of Engineering World-Wide-Web Committee (95-98)  
UCSB Catalog Committee (94-95)  
Academic Senate General Education Committee (94-95)  
Performance Review Committee for Dean of Graduate School (02)  
Search Committee for Vice Chancellor for Research (02-04)  
Chancellor's Advisory Committee for Acting Executive Vice Chancellor (02)  
Technology Transfer Advisory Committee (04-05)  
IGERT Coordinating Committee, CSE Program (02-07)  
Search Committee, Computational Science and Engineering Program (01-04)  
Search Committee for Computational Materials Science, COE, Chair (02-03)  
Facilities Committee, Materials Research Laboratory (95-)  
Executive Committee, Materials Research Laboratory (01-)  
Governing Board, Mitsubishi Chemical Center for Advanced Materials (01-)  
Steering Committee, Mitsubishi Chemical Center for Advanced Materials (01-)  
College of Engineering Undergraduate Mathematics Committee (04-05)  
College of Engineering Corporate Relations Advisory Committee (05-)  
College of Engineering, Energy Efficiency Institute, Advisory Board (08-)  
Academic Senate Privilege and Tenure Committee (08-10), Co-Chair (09-10)

### **Department of Chemical Engineering (UCSB):**

Graduate Seminars (90-92), (93-94), (98-01)  
Graduate Affairs Committee (91-92)  
Graduate Recruiting Committee (93-94)  
Undergraduate Curriculum Committee (93-96)  
WWW/Computing Committee Chair (90-94), (98-01), Chair (01-02), (03-05)  
Technical Services and Safety Committee (94-96)  
Merits and Promotions Committee (92-93), (95-96), (97-01), (09-10), Chair (97-  
98, 02-03, 05-09)  
Pearson Lecture Committee, Chair (09-10)  
Faculty Awards Committee (06-07), (07-08), Chair (06-07)  
Faculty Diversity Committee (07-08), Chair (08-10)

Faculty Recruiting Committee (90-92), (94-95), (97-98), (01-04), (05-06), Chair (98-01)  
Development and Fundraising Committee, Chair (98-01), (04-05)

## EXTERNAL BOARDS AND PROFESSIONAL SERVICE

1994-96 Member at Large, Executive Committee, Division of Polymer Physics, American Physical Society  
1992-94 Publications Committee, American Physical Society, Division of Polymer Physics, Chair (94)  
1992-01 Editorial Advisory Board, *Journal of Polymer Science, Physics Edition*  
2010- Executive Advisory Board, Executive Editor, *Journal of Polymer Science: Polymer Physics*  
1992-99 International Editorial Advisory Board, *Acta Polymerica*  
2000- International Advisory Board, *Macromolecular Materials & Engineering*  
1994-96 Editorial Advisory Board, *Macromolecules*  
1996-98 Technical Advisory Board on Materials, The Dow Chemical Company  
1998-01 Chair, Technical Advisory Board on Modeling, The Dow Chemical Company  
1998-01 UCSB Representative to Council on Chemical Research  
1998-99 Program Committee, Council on Chemical Research  
2001-04 Chairman of the Board, C4 Technologies Inc.  
2001- Director, PolyE Inc.  
2001- Corporate Science and Technology Advisor, Mitsubishi Chemical Corporation  
2001-02 Chair, Technical Advisory Board on Specialty and Functional Polymers, Mitsubishi Chemical Corporation  
2001-06 Divisional Assoc. Editor, Polymer Physics, *Physical Review Letters*  
2001-06 Editorial Board, *Physical Review Letters*  
2002-04 Chair, Nominating Committee, Division of Polymer Physics, American Physical Society, 2003-04  
2002-06 Scientific Advisory Board, Fqubed Corporation  
2002-07 Awards Committee, American Institute of Chemical Engineers  
2003-04 Walker Award Sub-Committee, American Institute of Chemical Engineers  
2006-07 Chair, Walker Award Sub-Committee, American Institute of Chemical Engineers  
2003-04 Chair, Technical Advisory Board on Polymer Synthesis, Mitsubishi Chemical Corporation  
2002-07 Advisory Board, Department of Chemical Engineering, University of Florida  
2004-05 Chair, Technical Advisory Board on Polymer Synthesis and Processing, Mitsubishi Chemical Corporation  
2005-07 Editorial Advisory Board, *Multiscale Modeling and Simulation*  
2005-06 Chair, Technical Advisory Board on Polymer Nanocomposites, Mitsubishi Chemical Corporation  
2005-07 co-Chair, National Academy of Engineering Japan-America Frontiers of Engineering (JAFOE) Program  
2005-06 Technical Advisory Board, Nellcor – Tyco Healthcare  
2006-07 MRSEC External Advisory Board, University of Minnesota  
2006-07 Chair, Technical Advisory Board (2) on Polymer Nanocomposites, Mitsubishi Chemical Corporation  
2006-07 Fellowship Committee, Division of Polymer Physics, American Physical Society

2007-08 Polymer Physics Prize Committee, Division of Polymer Physics, American Physical Society

2008-09 Vice-Chair, Division of Polymer Physics, American Physical Society

2008-09 Chair, Education Committee, Division of Polymer Physics, American Physical Society

2009-10 Chair-Elect, Division of Polymer Physics, American Physical Society

2009-10 Chair, Fellowship Committee, Division of Polymer Physics, American Physical Society

2009-10 Dillon Medal Selection Committee, Division of Polymer Physics, American Physical Society

2008-10 Executive Committee, Division of Polymer Physics, American Physical Society

2008-10 Program Committee, Division of Polymer Physics, American Physical Society

2007- Scientific Advisory Board, Segetis Inc., Minneapolis, MN

2007-09 Chair, Technical Advisory Board on Advanced Polyolefins, Mitsubishi Chemical Corporation

2007 Chair, Technical Advisory Meeting on Materials, Allergan Medical

2008- Editorial Advisory Board, *Soft Matter*

2008- Scientific Advisory Board, Novomer Inc., Boston, MA

2009- Member, Board of Directors, the KAITEKI Institute, Tokyo, Japan

2009- Scientific Advisory Board, DSM Corporation, the Netherlands

2010-11 Academic Jury, Quadrant Award, Quadrant AG, Zurich, Switzerland

## CONSULTING ACTIVITY

1990-95 Consultant, Exxon Research & Engineering Company

1993-96 Consultant, DuPont Central Research

1994- Consultant, The Dow Chemical Company

1998 Consultant, 3M Corporation

1999- Consultant, CSP Technologies

1999- Consultant, CV Holdings LLC

2000-02 Consultant, Hyperdigm Research

2000-01 Consultant, Diversa Corporation

2001- Consultant, Mitsubishi Chemical Corporation

2002-04 Consultant, Atofina Corporation

2002 Consultant, The Proctor & Gamble Company

2004-05 Consultant, Arkema Corporation

2004-06 Consultant, Inamed Corporation

2005-06 Consultant, Nellcor - Tyco Healthcare

2006- Consultant, Kraton Polymers

2006- Consultant, Allergan Medical

2007- Consultant, Segetis Inc.

2008- Consultant, DSM Corporation

2008- Consultant, Novomer Inc.

2009- Consultant, Mitsubishi Chemical Holdings Corporation

2009- Consultant, Bausch & Lomb

Expert witness consulting client list & references available upon request.

## PUBLICATIONS

Over 230 journal publications, 10 patents published or pending, 1 book:

*The Equilibrium Theory of Inhomogeneous Polymers*, G. H. Fredrickson (Oxford University Press, Oxford, 2006).