

**CURRICULUM VITAE****Ioannis A. Bitsanis****Birth date:** October 28, 1961**Birth place:** Kalamata, Greece**Address:** FO.R.T.H.-I.E.S.L.  
Vassilika Vouton  
P.O. Box 1527  
Heraklion, Crete, GREECE  
email: bitsanis@iesl.forth.gr  
phone: 2810-391383  
fax: 2810-391305**EDUCATION**

Sept 79 - July 84 Diploma of Chemical Engineering (B.S. in Chemical Eng.)  
University of Thessaloniki (Thessaloniki, Greece)  
GPA: 9 / 10

Sept 84 - Aug 88 Ph.D.  
University of Minnesota (Minneapolis, Minnesota)  
Major: Chemical Engineering  
GPA: 4.0 / 4.0  
Honors: Doctoral Dissertation Fellowship, University of  
Minnesota (July 87 - June 88)  
Thesis Title: Dynamics, transport and rheology of  
structured fluids  
Thesis advisors: Professor Matthew Tirrell  
Professor H. Ted Davis<sup>†</sup>

**PROFESSIONAL EXPERIENCE**

May 99 - present Principal Researcher, FO.R.T.H.-I.E.S.L.

Sept 03 – Aug 05 Teaching Professor, Dept. of Materials Sci. & Tech., Univ. of  
Crete (Heraklion, Crete, Greece).

May 98- May 99 Adjunct Professor, Dept. of Chemical Engineering, Univ. of  
Florida (Gainesville, FL)

June 95- May 99	Associate Professor, Dept. of Chemical Engineering, Univ. of Florida (Gainesville, FL)
Jan 96 - Oct 96	Military Service, Greek Army (on leave from Univ. of Florida)
May 89 - June 95	Assistant Professor, Dept. of Chemical Engineering, Univ. of Florida (Gainesville, FL)
Sept 88 - April 89	Visiting Scientist, IBM Almaden Research Center, Division of "Magnetic Recording Media Technology" (San Jose, CA)

#### **ACADEMIC SERVICE**

1. Leader of the "Simulation, Modelling and Visualization" Thrust and member of the Research Coordination Committee for the NSF Engineering Research Center on "Particle Science and Technology" at the Univ. of Florida
2. Representative of the Chemical Eng. department in the Committee of the "Center for Chemical Physics" at the Univ. of Florida. The center coordinates research and teaching efforts by faculty in the depts. of Physics, Chemistry and Chemical Engineering, who share common interests in the general area of Chemical Physics. The "Center for Chemical Physics" awards a minor on "Chemical Physics" to graduate students from the above departments, subject to the successful completion of a "Chemical Physics Core" course schedule.
3. Representative of the Chemical Eng. department in the Committee of the "Polymer Science and Engineering Group" at the Univ. of Florida. The group coordinates research and teaching efforts by faculty in the depts. of Physics, Chemistry, Materials Sci. & Eng. and Chemical Engineering, who share common interests in Polymer Science and Engineering.
4. Representative of the Chemical Eng. department in the Committee of the College of Engineering, Univ. of Florida for the "Enhancement of Mathematics and Physics Education of Engineering students".
5. Designed and taught for two years two new courses in the newly established Department of "Materials Science and Technology", U of Crete.; courses were offered to "Materials" and "Physics" depts. senior undergrad students ["Computational Materials Science", TETY 347; "Physical Chemistry of Surfaces and Interfaces"; TETY 347].

#### **TEACHING EXPERIENCE**

- Designed and taught 3 times the graduate course on "Classical and Statistical Thermodynamics"

- Designed and taught the NTU (USA) course on “Thermodynamics”, which was offered telematically to engineers across the USA working towards a ME degree, while staying at their jobs
- Designed and taught twice the graduate course “The Physical Basis of Chemical Engineering”
- Designed and taught the graduate course on “Stochastic Processes”
- Designed and taught the senior and graduate course “Introduction to Polymer Physics and Chemistry (offered to Depts. Of Chem. Eng., Physics, Chemistry and Mat. Sci.)
- Taught 3 times the senior undergraduate course “Phase and Chemical Equilibria”
- Taught twice the sophomore undergraduate course “Thermodynamics I: Material and Energy Balance”.
- Taught the senior course “Transport Phenomena”
- Taught twice the sophomore course on “Numerical Methods in Chemical Engineering”
- Offered for four years special lectures during the annual Summer School of the Physics Dept., Univ. of Crete on ‘Introduction to Polymer Science’ (senior Physics students from all Greek Physics Departments)
- Designed and offered twice the senior undergraduate course on “Computational Materials Science”
- Designed and offered twice the sophomore undergraduate course on “Interfacial Materials Science”
- Was invited and gave twice lectures for the annual Summer organized by NRCPS “Demokritos” (senior Science and Engineering students from Athens’s Universities)

#### **OTHER PROFESSIONAL SERVICE**

1. Frequent reviewer of manuscripts submitted to "Macromolecules", "Journal of Chemical Physics", "J. of Polymer Sci.: Pol. Phys. Ed.", "Journal of Colloid and Interfacial Science", "Chemical Engineering Science", "AIChE Journal", "Journal of Applied Polymer Science", "Adsorption", "Europhysics Letters", "Journal of Rheology", J. of Phys. Chem., J. of Phys.: Condensed Matter and other journals.
2. Reviewer of proposals submitted to the National Science Foundation, ACS-Petroleum Research Fund and Bi-national Science Foundation (USA-Israel).
3. Member of NSF Reviewer Panels for "Research Initiation Awards".
4. Served as Session Chairman in APS, ACS, PSXM conferences.
5. Member of the Organizing Committee for the 2001 Hellenic Polymer Society Conference.
5. Chairman of Thematic Sessions of the Symposium on “Materials Science and Technology”; PSXM (Patras 2003, Thessaloniki 2005).
6. Chairman and Organizer of the Symposium on «Computational Methods in Chemical Engineering: Physical Chemistry» in the context of the International Conference on Computational Methods in Science and Engineering (ICCMSE; [www.iccmse.org](http://www.iccmse.org); Corfu, Greece, Sept. 2007).

**HONORS AND AWARDS**

1. Graduate Fellowship, Dept. of Chemical Eng. & Materials Sci., University of Minnesota (1987).
2. Instructor for the National Technical University course on "Thermodynamics", which was offered to Industry Engineers, nationwide (U.S.A.) working towards a M.E. (Fall 95&97)
3. "Who isWho" Teacher of the year award (1998).
4. Selection of Journal Publication #28, on the basis of "number of downloads for recently published papers" for the virtual Journal of the American Physical Society and the American Institute of Physics (2005).
5. Gave invited presentation for the "Thermodynamics" Seminar co-organized by the Depts. of Chem. Eng. And Mat. Sc. of the Univ. of Delaware and performed bi-monthly (2007).
6. Award by the Journal of Physical Chemistry for being rated at the top 20% of the Journal's reviewers (2009).
7. Official Invitee, "The Athens Dialogues", organized by the Onassis Foundation, Athens, Greece (2010).
8. Selection of Journal Publication #34, on the basis of "number of downloads for recently published papers" for the virtual Journal of the American Physical Society and the American Institute of Physics (2010).

**GRADUATE STUDENTS SUPERVISED**

- |                          |       |      |                  |
|--------------------------|-------|------|------------------|
| 1. Chongmin Pan          | M.Sc. | 1992 | Univ. of Florida |
| 2. Sanjay Gupta          | M.Sc. | 1994 | >>               |
| 3. Thomas Knudstrup      | M.Sc. | 1995 | >>               |
| 4. Ravi Ballamudi        | Ph.D. | 1997 | >>               |
| 5. Joanne Thomatos       | M.Sc. | 1997 | >>               |
| 6. Suresh Thennadil      | Ph.D. | 1998 | >>               |
| 7. Charlie Jacobson      | Ph.D. | 1998 | >>               |
| 7. Jason de Joannis      | Ph.D. | 2000 | >>               |
| 8. Anastasia Rissanou    | Ph.D. | 2003 | Univ. Of Crete   |
| 9. Emmanuel Karaiskos    | Ph.D. | 2006 | Univ. of Patras  |
| 10. Marianna Yannourakou | M.Sc. | 2006 | Univ. of Athens  |
| 11. Marianna Yannourakou | Ph.D. | 2009 | NTU Athens       |

**CO-WORKERS AT THE POST-DOCTORAL LEVEL**

- |                       |                     |         |
|-----------------------|---------------------|---------|
| 1. Jutta Fittinghoff  | Un. of Florida      | 1990-91 |
| 2. Bob Koopman        | Un. of Florida      | 1993-94 |
| 3. Jorge Jimenez      | Un. of Florida      | 1998-99 |
| 4. Anastasia Rissanou | NRCPS. "Demokritos" | 2006-07 |
| 5. Hari Lontiadou     | FORTH-IESL          | 2006-07 |
| 6. Emmanuel Karaiskos | FORTH-IESL          | 2008-09 |

### SCIENTIFIC RATINGS AND RECOGNITION

1. Publications have received 1,092 citations (wos.ekt.gr) as of Sept. 2010. 3 articles have been cited more than 100 times, while the top one has 229 citations.
2. Invited presentations/seminars by Scientific Conferences, Universities and Research Labs are more than 50.

### JOURNAL PUBLICATIONS

1. I.A. Bitsanis<sup>\*</sup>, M. Tirrell, H.T. Davis, "Statistics of Correlation Functions from Molecular Dynamics", *Physical Review A*, vol. 36, 1987, pp.958-961.
2. I.A. Bitsanis<sup>+</sup>, J. J. Magda, M. Tirrell, H.T. Davis<sup>\*</sup>, "Molecular Dynamics of Flow in Micropores", *Journal of Chemical Physics*, vol. 87, 1987, pp. 1733-1750.
3. I.A. Bitsanis<sup>+</sup>, T. K. Vanderlick, M. Tirrell, H.T. Davis<sup>\*</sup>, "A tractable Molecular Theory of Flow in Strongly Inhomogeneous Fluids", *Journal of Chemical Physics* vol. 89, 1988, pp. 3152-3161.
4. I.A. Bitsanis<sup>+</sup>, H.T. Davis, M. Tirrell<sup>\*</sup>, "Brownian Dynamics of Non-dilute Solutions of Rodlike Polymers. 1. Low Concentrations", *Macromolecules* vol. 21, 1988, pp. 2824-2835.
5. I.A. Bitsanis<sup>+</sup>, H.T. Davis, M. Tirrell<sup>\*</sup>, "Brownian Dynamics of Non-dilute Solutions of Rodlike Polymers. 2. High Concentrations", *Macromolecules* vol. 23, 1990, pp. 1157-1165.
6. I.A. Bitsanis<sup>+</sup>, G. Hadziioannou<sup>\*</sup>, "Molecular dynamics simulations of the structure and dynamics of confined polymer melts", *Journal of Chemical Physics* vol. 92, 1990, pp. 3827 -3848.
7. I.A. Bitsanis<sup>+</sup>, S.A. Somers, M. Tirrell, H.T. Davis<sup>\*</sup>, "Microscopic dynamics of flow in molecularly narrow pores", *Journal of Chemical Physics* vol. 93, 1990, pp. 3427-3431.
8. S. Gupta, G.B. Westermann-Clark, I.A. Bitsanis<sup>\*</sup>, "A Continuous Monte Carlo Method for Simultaneous Growth and Equilibration of Polymer Chains with Detailed Molecular Architecture", *Journal of Chemical Physics* vol. 98, 1993, pp. 634-637.
9. C. Pan, I.A. Bitsanis<sup>\*</sup>, "Structure, Conformations and Dynamics of Polymer Chains at Solid- melt Interfaces", *Macromolecular Chemistry, Macromolecular Symposia* vol. 65, 1993, pp. 211-221.
10. I.A. Bitsanis<sup>\*</sup>, G. ten Brinke, "A Lattice Monte Carlo Study of Long Chain Conformations at Solid-melt Interfaces", *Journal of Chemical Physics* vol. 99, 1993, pp. 3100-3111.
11. I.A. Bitsanis<sup>\*</sup>, C. Pan, "The Origin of Glassy Dynamics at Solid-Oligomer Interfaces", *Journal of Chemical Physics* vol. 99, 1993, pp. 5520-5527.

12. E. Manias, G. Hadziioannou, I.A. Bitsanis<sup>#</sup>, G. ten Brinke\*, "Stick and Slip Behavior of Thin Oligomer Films Under Shear: A Molecular Dynamics Study", *Europhysics Letters* vol. 24, 1993, pp. 99-104.
13. S. Gupta, D.C. Koopman, G.B. Westermann-Clark, I.A. Bitsanis\*, "Segmental Dynamics and Relaxation of n-Octane at Solid-Liquid Interfaces", *Journal of Chemical Physics* vol. 100, 1994, pp. 8444-8452.
14. D.C Koopman, S. Gupta, R.K. Ballamudi, G.B. Westermann-Clark, I.A. Bitsanis\*, "Structural Patterns and Molecular Mobility Inside the Interface between an fcc Solid and Liquid n-Octane", *Chem Eng. Sci.*, vol. 49, 1994, pp. 2907-2920.
15. T.K. Knudstun, I.A. Bitsanis<sup>#</sup>, G.B. Westermann-Clark\*, "Pressure-Driven Flow Experiments in Molecularly Narrow, Straight Nucleopores", *Langmuir*, vol. 11, 1995, pp. 893-897.
16. R.K. Ballamudi, I.A. Bitsanis\*, "Energetically and Pressure-driven Phase Transitions in Nanoscopically Thin Films of N-Octane", *Tribology Lett.*, vol. 48, 1995, pp. 177-190.
17. R.K. Ballamudi, I.A. Bitsanis\*, "Structural Transitions at Solid-Liquid Interfaces", *Adsorption*, vol. 2, 1996, pp. 69-76.
18. E. Manias, I.A. Bitsanis<sup>#</sup>, G. Hadziioannou, G. ten Brinke\*, "On the nature of shear thinning in nanoscopically confined films", *Europhysics Lett.*, vol. 33, 1996, pp 371-376.
19. R.K. Ballamudi, I.A. Bitsanis\*, "Energetically driven liquid-solid transitions in molecularly thin n-octane films", *J. Chemical Phys.*, vol. 105, 1996, pp. 7774-7782.
20. J. DeJoannis, J. Jimenez, R. Rajagopalan and I.A. Bitsanis<sup>+</sup>, "A Polymer Chain Trapped between Athermal Walls: Concentration Profile and Confinement Force", *Europhysics Lett.*, vol. 51, 2000, pp. 41-47.
21. J. Jimenez, J. DeJoannis, I.A. Bitsanis<sup>#</sup> and R. Rajagopalan\*, "Bridging of an Isolated Polymer Chain", *Macromolecules*, vol. 33, 2000, pp.7157-7164.
22. J. Jimenez, J. DeJoannis, I.A. Bitsanis<sup>#</sup>, and R. Rajagopalan\*, "Interaction between Undersaturated Polymer Layers: Computer Simulations and Numerical Mean-Field Calculations", *Macromolecules*, vol. 33, 2000, pp. 8512-8519.
23. J. DeJoannis, J. Thomatos, C.-W. Park and I.A. Bitsanis\*, "Homopolymer Physisorption: A Monte Carlo Study", *Langmuir* vol. 17, 2001, pp. 69-77.
24. J de Joannis, J. Jimenez, R. Rajagopapalan and I.A. Bitsanis\*, "Compression of an Adsorbed Polymer Layer of Fixed Mass: A Monte Carlo Study", *Macromolecules* vol. 34, 2001, pp. 4597-4605.
25. J. de Joannis, R.K. Ballamudi, C.-W. Park, J. Thomatos and I.A. Bitsanis\*, "Scaling of Homopolymers next to Adsorbing Surfaces: A Monte Carlo Study", *Europhysics Lett.* vol. 56, 2001, pp. 200-206.
26. A.N. Rissanou, C. Mujat, J. DeJoannis, A. Dogariu, S.H. Anastasiadis and I.A. Bitsanis\*, "The Information Content of Multiple Scattering Data: Monte-Carlo and Laboratory experiments", *Progr. Colloid Polym. Sci.* vol. 118, 2001, pp. 276-279.

27. E. Karaiskos, S.H. Anastasiadis and I.A. Bitsanis\*, "Optimization of Configurational Bias Monte Carlo for Long Chain Molecules", *Macromol. Theory Simul.*, vol. 13, 2004, pp. 762-770.
28. A.N. Rissanou, D. Vlassopoulos and I.A. Bitsanis\*, "Temperature – Induced Microstructural Changes in Suspensions of 'Soft Colloids': Molecular Dynamics Simulations and Comparison with Experiment", *Phys. Rev. E Phys. Rev. E*, vol. 71, 2005, pp. 011402-1/12.
29. 35. A. Rissanou, M. Yianourakou, I.G. Economou and I.A. Bitsanis\* "Temperature Induced Crystallization in Concentrated Suspensions of Multi-Arm Star Polymers: A Molecular Dynamics Study", *J. Chem. Phys.*, vol. 124, 2006, pp. 044905-1/11.
30. A.N. Rissanou, S.H. Anastasiadis and I.A. Bitsanis\* "A Monte Carlo Study of the Coil-to-Globule Transition of a Model Polymeric System", *J. Polymer Science Part B: Polymer Physics*, vol 44, 2006, pp. 3651-3666.
31. A.N. Rissanou, M. Yianourakou, I.G. Economou and I.A. Bitsanis+ "Amorphous and Crystalline States of Ultrasoft Colloids: A Molecular Dynamics Study", *Rheologica Acta*, vol. 46, 2007, pp. 755-764.
32. M. Yiannourakou, I.G. Economou and I.A. Bitsanis+ "Phase equilibrium of colloidal suspensions with particle size dispersity: A Monte Carlo study", *J. Chem. Phys.*, vol. 130, 2009, pp. 194902-1/10.
33. E. Karaiskos, I.A. Bitsanis\*, S.H. Anastasiadis\*, "Monte Carlo studies of tethered chains", *J. Polymer Science Part B: Polymer Physics*, vol. 47, 2009, pp. 2449-2461.
34. A.N. Rissanou, S.H. Anastasiadis\* and I.A. Bitsanis\*, "A Monte Carlo Study of the Coil-to-Globule Transition of Model Polymer Chains near an Attractive Surface", *J. Polymer Science Part B: Polymer Physics*, vol. 47, 2009, pp. 2462-2476.
35. M. Yiannourakou, I.G. Economou and I.A. Bitsanis\* "Structural and Dynamical Analysis of Monodisperse and Polydisperse Colloidal Systems", *J. Chem. Phys.*, vol. 133, 2010, p. 224901.

#### **BOOK CHAPTERS (after review)**

36. H.T. Davis, I.A. Bitsanis#, T. K. Vanderlick, M. Tirrell, "Theory and Computer Simulation of Structure, Transport and Flow of Fluids in Micropores" in "Supercomputer Research in Chemical Engineering", K.F. Jensen and D.G. Truhlar eds., ACS Publ., 1987, pp. 257-281.
37. H.T. Davis\*, S.A. Somers, M. Tirrell, I.A. Bitsanis#, "Computer Simulations of Fluids in Ultrathin Pores", in "Dynamics in Small Confining Systems", eds. J.M. Drake, J. Klafter, R. Kopelman, MRS Publ., 1990, pp. 73-76.
38. I.A. Bitsanis\*, C. Pan, "Conformational statistics and mobility of long polymer chains at solid-melt interfaces", "Dispersion and Aggregation. Fundamentals and Applications", B.M. Moudgil and P. Somasundaran eds., Engineering Foundation Publ. 1994, pp. 93-99.
39. A.N. Rissanou, D. Vlassopoulos and I.A. Bitsanis\*, "Temperature – Induced Microstructural Changes in Suspensions of 'Soft Colloids': Molecular Dynamics Simulations and Comparison with Experiment", "Virtual Journal of Biological Physics", APS-AIP Electronic Journal, 01/2005.

40. I.A. Bitsanis\*, A.N. Rissanou, M. Yannourakou, I.G. Economou, D. Vlassopoulos “Mesoscopic Simulations of T-Induced Solidification in Dense Suspensions of Ultrasoft Supramolecules”, Lecture Series on Computer and Computational Sciences vol 7B; 2006: "Recent Progress in Computational Science and Engineering", Eds: Theodore Simos & George Maroulis, Brill Academic Publishers 2006 pp. 1079-1083.
41. I.A. Bitsanis\*, E. Manias, “Symposium 3: Computational Methods in Chemical Engineering: Physical Chemistry”, AIP Proc. Vol. 963, pp. 401-403 (2007).
42. A.N. Rissanou, S.H. Anastasidis, I.A. Bitsanis\*, “Conformational Transitions of a Model Polymeric System near Attractive Surfaces: a Monte Carlo Study”, AIP Proc. Vol. 963, pp. 428-431 (2007).
43. M. Yiannourakou, I. Bitsanis\*, I. Economou, “Phase Equilibrium of Colloid Systems with Particle Size Dispersion: A Monte Carlo Study”, AIP Proc. Vol. 963, pp. 444-447 (2007).
44. M. Yiannourakou, I.G. Economou and I.A. Bitsanis\* “Structural and Dynamical Analysis of Polydisperse Colloidal Systems”, “Virtual Journal of Biological Physics”, APS-AIP Electronic Journal, 12/2010.

#### **CONFERENCE PAPERS (after review)**

45. S. Thennadil, I.A. Bitsanis<sup>#</sup>, L.H. Garcia-Rubio, "Monte Carlo Simulations of Concentrated Colloidal Dispersions," Proc. of the 5th World Congress in Chem. Eng., 1996, pp. 390-392.
46. J. DeJoannis, C.-W. Park, I.A. Bitsanis\*, “A Monte Carlo Test of Infinite-Chain-Length Polymer Adsorption Theories”, Proc. of 4th Conference on Separation Science and Technology, 1999.
47. D. Shah, I.A. Bitsanis<sup>#</sup>, U. Natarajan, E. Hackett and E.P. Giannelis, “Polymer Nanocomposites: Molecular Dynamics Simulations of Polystyrene and Polystyrene – Polyisoprene Block Copolymer Nanocomposites”, Mat. Res. Soc. Symp. Proc. Vol. 733E, eds. S. Nutt, R. Vaia, W. Rodgers, G. Hagnauer, G. Beall, MRS Publ., 2002 pp. T1.1.1- T1.1.11.

#### **INVITED CONFERENCE PRESENTATIONS**

1. 201st ACS National Meeting, Atlanta, GA, USA (April 1991).
2. Engineering Foundation Conference on “Dispersion and Aggregation”, Palm Coast, FL, USA (March 1992).
3. 205th ACS National Meeting, Denver, CO, USA (April 1993).
4. 207th ACS National Meeting, San Francisco, CA, USA (March 1994).
5. AIChE 1994 Annual Meeting, San Francisco, CA, USA (November 1994).
6. 69th Colloid and Surface Science Symposium (organized by ACS), Salt Lake City, UT, USA (June 1995).
7. Workshop on Modeling of Industrial Materials: Connecting Atomistic and Continuum Scales, Santa Barbara, CA, USA (Jan 1996).
8. 3rd International Conference on the Relaxation of Complex Systems (organized by NIST, NSF and Max Planck Institutes), Vigo, Spain (June 1997).



9. The Tohwa International Symposium on "Slow Dynamics in Complex Systems", Fukuoka, Japan (Nov 1998).
10. Euresco Conference on "Interfaces and Colloidal Systems", Aghia Pelagia, Greece (Sept 1999).
11. APS March Meeting, "Dillon Medal Symposium", Toronto, Quebec, Canada (March 2004).
12. 6<sup>th</sup> Conference of the "Hellenic Polymer Society", Symposium in honor of Tadeus Pakula, Patras, Greece (Nov 2006).
13. International Fine Particle Research Institute, Hersonissos, Crete, Greece (June 2008)
14. International Conference on Polymer Blends, Composites, IPNs, Membranes and Gels: Macro to Nano Scales (ICBC – 2008), Kottayam; Kerala, India (Sept 2008).

#### **INVITED SEMINARS (Academia)**

1. Dept. of Chemical Engineering, University of California at Berkeley, Berkeley CA (March 1989).
2. Dept. of Chemical Engineering & Materials Science, University of Minnesota, Minneapolis MN (April 1989).
3. Dept. of Physics, University of Minnesota, Minneapolis MN (April 1989).
4. Dept. of Chemistry, University of Florida, Gainesville, FL (October 1989).
5. Dept. of Chemical Engineering, Massachusetts Institute of Technology, Cambridge MA (November 1989).
6. Dept. of Chemical Engineering, Cornell University, Ithaca NY (December 1989).
7. Dept. of Chemical Engineering, University of South Florida, Tampa FL (April 1990).
8. Dept. of Chemical Engineering, FAMU/FSU College of Engineering, Tallahassee FL (Feb 1991).
9. Center for Surface Science and Engineering, University of Florida, Gainesville FL (Feb 1991).
10. Dept. of Chemistry, University of Groningen, Groningen, The Netherlands (June 1991).
12. Dept. of Chemical Engineering, University of California, Berkeley CA (October 1991).
13. Center for Surface Science and Engineering, University of Florida, Gainesville FL (March 1992).
14. Dept. of Chemistry, University of Crete, Heraklion, Greece (July 1992).
15. Dept. of Chemical Engineering, Penn State University (April 1996).
16. Dept. of Chem. Engineering, Florida State Univ. (April 1998).
17. Dept. of Chemical Engineering, Univ. of Patras, (Jan 1999).
18. Dept. of Materials Sci. & Eng., Cornell University, Ithaca NY (March 2004).
19. Dept. of Materials Sci., Pennsylvania State University, University Park, PA (March 2004).
20. Dept. of Chemical Engineering and Dept. of Material Science, "Thermodynamics Seminar" Univ. of Delaware, Newark, DE (Mar 2007).
21. Dept. of Chemical Engineering, Columbia Univ., New York, NY (Mar 2007).
22. Dept. of Chemical & Biological Engineering, State Univ. of New York (SUNY), Buffalo, NY (Mar 2009).
23. Dept. of Chemical Engineering, MIT, Cambridge, MA (Mar 2009).

**INVITED SEMINARS (Industry & National Laboratories)**

1. IBM, GPD San Jose, California (March 1990).
2. IBM, Almaden Research Center, San Jose, California (June 1990).
3. AT&T, Bell Laboratories, Murray Hill, New Jersey (July 1990).
4. IBM, Almaden Research Center, San Jose, California (November 1990).
5. FOM-Institute for Atomic and Molecular Physics, Amsterdam, The Netherlands (June 1991).
6. IBM, Almaden Research Center, San Jose, California (November 1991).
7. Institute of Chemical Engineering and High Temperature Chemical Processes, Patra, Greece (October 1993).
8. Rohm & Haas Corp., Philadelphia, PA (November 1995).
9. Center for Research and Education on Optics and Lasers, Orlando, FL (March 1998).
10. National High Magnet Lab, Tallahassee, FL (March 1998).
11. "EKEFE Demokritos", Physical Chemistry Division, Athens, Greece (January 1999).
12. "EIE, Inst. of "Physical and Theoretical Chemistry", Athens, Greece (July 2004).
13. NRCPS "Demokritos", Inst. of "Materials Science", Athens, Greece (May 2009).