

# **CURRICULUM VITAE**

Dr. Apostolos K. Rizos,

Professor

University of Crete

Department of Chemistry

PERSONAL

◆ Date of birth	February 8, 1957
◆ Place of birth	Vasilika, Larisa, GREECE
◆ Marital status	Married, two children
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CAREER/EMPLOYMENT

- 1979                   **B.S.** Chemistry, Aristotelion University of Thessaloniki, Greece
- 1980-1982           State University of New York, Teaching Assistant.
- 1980-1982           **M.S.** in Chemical Physics, State University of New York, Binghamton, New York, USA
- 1982-1985           **Ph.D.** in Physical Chemistry, State University of New York, Binghamton, New York, USA  
Thesis title: "*Chemical Kinetics of Nitrosylhemoglobin Ligand Exchange and Photochemistry*"
- 1985-1986           **Research Associate**, Northeastern University, Department of Biophysics, Boston, USA
- 1986-1988           **Military service**
- 1988-present       **Research Scientist**, FORTH-IESL, Heraklion, Greece.
- 1988-1991           University of Crete, Chemistry Department.
- 1989 (Sept. - Oct.)   **Visiting Scientist**, Technical University of Merseburg, GERMANY
- 1991 (Jan.-June.)     Foundation for Research and Technology Hellas (FORTH)
- 1991 (Jan.)           **Lecturer** of Physical Chemistry, University of *University of Crete, Chemistry Department*

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- 1992 (Oct.)                   **Visiting Scientist**, University of Uppsala,  
Institute of Physical Chemistry, SWEDEN
- 1993 (Sept.)                  **Visiting Scientist**, University of Uppsala,  
Institute of Physical Chemistry, SWEDEN
- 1995 (April)                 **Assistant Professor** of Physical Chemistry,  
University of Crete
- 1996 (July)                  **Visiting Scientist**, University of Uppsala,  
Institute of Physical Chemistry, SWEDEN.
- 1997-1998                    **Visiting Professor**, Binghamton University,  
State University of New York, USA.
- 2000                          **Associate Professor**, University of Crete.
- 2005                          **Visiting Professor**, Nottingham University, UK
- 2007                          **Professor** of Chemistry, University of Crete.

### **LANGUAGES**

Greek, English

### **MAIN FIELD**

Physical Chemistry  
Polymer Physics  
Biophysics

### **FELLOWSHIPS**

- Fellowship of the Greek State during the undergraduate studies at Aristotelion University of Thessaloniki.
- Fellowship of the Greek Workers Foundation.
- Research Fellowship SUNY-Research Foundation, New York, USA, 1982-1984.

### **TEACHING EXPERIENCE**

- 1980-1984

*University of Crete, Chemistry Department*

State University of New York, Teaching Assistant. in General and Physical Chemistry courses.

➤ 1988-1990

In charge of the undergraduate first Physical Chemistry Laboratory of the Chemistry Department and author of the first experimental laboratory manual.

➤ 1990-1992

Teaching of General Chemistry in the Medical School of Heraklion.

➤ Teaching of General Chemistry in the Chemistry and Biology Departments

➤ Teaching of Physical Chemistry (Group Theory, Thermodynamics, Spectroscopy)

➤ Teaching of Graduate Courses (Spectroscopic Characterization of Macromolecular Systems)

➤ Teaching of an elective course on the Role of Chemistry in Health and Disease

### **SCIENTIFIC COLLABORATION**

◆ **Dr. Stavros Sifakis MD, PhD**

Obstetrician gynecologist surgeon, Heraklion, Greece

◆ **Dr. Aristidis Tsatsakis, Professor**

School of Medicine, University of Crete, Greece

◆ **Dr. Manolis Tzatzarakis, Assist. Professor**

School of Medicine, University of Crete, Greece

◆ **Dr. Elias Krambovitis, Professor**

School of Health Sciences, University of Thessaly, Greece

◆ **Prof. Dimitrios Morikis**

Department of Bioengineering, University of California at Riverside, USA

◆ **Prof. Daniel E. Kaufmann, M.D**

Ragon Institute of MGH, MIT and Harvard Massachusetts General Hospital, USA

◆ **Prof. D. C. Doetschman**

Binghamton University, State University of New York, USA

◆ **Dr. Kia Ngai**

Naval Research Laboratory, Washington, D.C. USA

◆ **Dr. Mike Roland**

Naval Research Laboratory, Washington, D.C. USA

### **REVIEWER FOR:**

- *Journal of Polymer Science, Physics Edition*
- *Journal of Physical Chemistry*
- *Journal of Non-Crystalline Solids*
- *Materials Research Society*
- *National Science Foundation*
- *Macromolecules*

### **CURRENT RESEARCH INTERESTS**

Our research concerns the structure, dynamics and interactions in *polymers and biopolymers*, *polymer blends*, *controlled release polymers and bioactive peptides* utilizing a variety of experimental techniques (*Static and Dynamic Light Scattering, Electron Paramagnetic Resonance (both CW and pulsed, NMR)*).

### **Immunophysics of HIV-1**

- Our current interests are focused on the role of electrostatics in protein-protein interactions. Of particular interest here are the interactions between positively-charged gp120 V3 loop-derived peptides and the negatively-charged N-terminal domain of CCR5.

### **Chemistry in Health and Disease**

- During the last decade we initiated research on the critical Role of Chemistry in Health and Disease. Our increased interest regarding the relation between diet and health is due to the important role nutrition plays throughout our lifetime, since this role affects the growth of our body during childhood, the risk for acute and chronic diseases as well as the maintenance of physiological biological processes.
- An important goal of our research is to help inform and clarify the knowledge about the relationship between our diet and the molecular processes that involve the foods we eat. At the same time we wish to provide a new depth of objective information on increasingly salient issues, so essential for all those interested in the relationship between diet and our health.

### **PUBLICATIONS**

1. “*Biomonitoring of bisphenol A, triclosan and perfluorooctanoic acid in hair samples of children and adults*”. Karzi V, Tzatzarakis MN, Vakonaki E, Alegakis T, Katsikantami I, Sifakis S, Rizos A, Tsatsakis AM. *J Appl Toxicol.* 2018 Aug;38(8):1144-1152. doi: 10.1002/jat.3627. Epub 2018 May 3.
2. “*Quantification of 4-Methylimidazole in soft drinks, sauces and vinegars of Greek market using two liquid chromatography techniques*”. Tzatzarakis MN, Vakonaki E, Moti S, Alegakis A, Tsitsimpikou C, Tsakiris I, Goumenou M, Nosyrev AE, Rizos AK, Tsatsakis AM. *Food Chem Toxicol.* 2017 Sep;107(Pt B):565-571. doi: 10.1016/j.fct.2017.03.028. Epub 2017 Mar 19.

3. "A global assessment of phthalates burden and related links to health effects" I. Katsikantami, S. Sifakis, MN Tzatzarakis, E Vakonaki, OI Kalantzi, AM Tsatsakis, AK Rizos Environ. Int. 2016 Sep 23. pii: S0160-4120(16)30414-7. doi: 10.1016/j.envint.2016.09.013. [Epub ahead of print].
4. "*Determination of 4-methylimidazole in soft drinks, beers, vinegar and sauces of Greek market using liquid chromatography–mass spectrometry*" E. Vakonaki, M. Tzatzarakis, S. Moti, D. Vynias, M. Flavourakis, M. Kavvalakis, C. Tsitsimpikou, I.N. Tsakiris, A.K. Rizos, A.M. Tsatsakis Toxicology Letters 238S (2015) S56–S383
5. "*Bisphenol A in beverages and canned foods of the Greek market*" M. Tzatzarakis, V. Karzi, E. Vakonaki, E. Barbounis, C. Tsitsimpikou, A.I. Vardavas, I. Tsakiris, S. Psycharakis, A.K. Rizos, A.M. Tsatsakis Toxicology Letters 238S (2015) S56–S383
6. "*Determination of diacetyl in butters and margarines by gas chromatography – mass spectrometry*" M. Tzatzarakis, E. Vakonaki, C. Kampouropoulou, P.D.. Stivaktakis, S. Papachristou, D. Vynias, I. Tsakiris, A.K. Rizos, A.M. Tsatsakis Toxicology Letters 238S (2015) S56–S383
7. "*Clustering of HIV-1 Subtypes Based on gp120 V3 Loop Electrostatic Properties*" Aliana Lopez de Victoria, Chris A Kieslich, Apostolos K Rizos, Elias Krambovitidis, Dimitrios Morikis BMC Biophysics 2012, 5:3 (7 February 2012)
8. "*The chlorosome of Chlorobaculum tepidum: Size, mass and protein composition revealed by electron microscopy, dynamic light scattering and mass spectrometry-driven proteomics*" Kalliopi Kouyianou, Pieter-Jan De Bock, Shirley A. Muller, Antigoni Nikolaki, Apostolos Rizos, Vladislav Krzyz, Aikaterini Aktoudianaki, Joe Vandekerckhove, Andreas Engel, Kris Gevaert and Georgios Tsiotis PROTEOMICS Volume 11, Issue 14, 2011
9. "*HIV and Immune System Deregulation*" Rizos, Apostolos K; Morikis, Dimitrios; Krambovitidis, Elias, JAIDS Journal of Acquired Immune Deficiency Syndromes: April 2011 - Volume 56 - Issue - p 52
10. "*The adsorption of organophosphates into microporous and mesoporous NaX zeolites and subsequent chemistry*" Meng, Qingguo, Doetschman, David, Rizos, Apostolos, Lee, Min-Hong, Schulte, Jorgen, Spyros, Apostolos, Kanyi, Charles Environmental Science & Technology 45 (2011) 3000-3005.
11. "*Evidence of HIV-1 gp120/V3 — CCR5 peptide complex organization in vitro*" A.K. Rizos, A. Mpountouraki, C. Logakh, P. Samolis, G. Hatzidakis, D.C. Doetschman, E. Krambovitidis, Journal of Non-Crystalline Solids, 357 (2011) 723-725.
12. "*Polyvinyl alcohol cross-linked macroporous polymeric hydrogels: Structure formation and regularity investigation*" A.A. Artyukhov, M.I. Shtilman, A.N. Kuskov, L.I. Pashkova, A.M. Tsatsakis and A.K. Rizos Journal of Non-Crystalline Solids 357 (2011) 700-706.
13. "*Amphiphilic poly-N-vinylpyrrolidone nanoparticles as carriers for non-steroidal anti-inflammatory drugs: characterization and in vitro controlled release of indomethacin*" Kuskov AN, Voskresenskaya AA, Goryachaya AV, Shtilman MI, Spandidos DA, Rizos AK, Tsatsakis AM. Int J Mol Med. **26(1)** (2010) 85-94.
14. "*NMR evidence of charge-dependent interaction between various PND V3 and CCR5 N-terminal peptides*" Galanakis PA, Kandias NG, Rizos AK, Morikis D, Krambovitidis E, Spyroulias GA. Biopolymers. **92(2)** (2009) 94-109.
15. "*Biophysical characterization of V3-lipopeptide liposomes influencing HIV-1 infectivity*" Apostolos K. Rizos, Stavroula Baritaki, Ioannis Tsikalas, David C.

- Doetschman, Demetrios A. Spandidos, Elias Krambovitis Biochemical and Biophysical Research Communications 355 (2007) 963-969.
16. "A comparative approach towards thylakoid membrane proteome analysis of unicellular green alga *Scenedesmus obliquus*" K. Kantzilakis, M. Aivaliotis, C. Kotakis, F. Krasanakis, A. K. Rizos, K. Kotzabasis and G. Tsiotis  
*BBA – Biomembranes* 1768 (2007) 2271-2279.
17. "Amphiphilic poly-N-vinylpyrrolidone nanocarriers with incorporated model proteins" A.N. Kuskov, A.L. Villemson, M.I. Shtilman, N.I. Larionova, A.M. Tsatsakis, I. Tsikalas and A. K. Rizos  
*J. Physics Condens. Matter* 19 (2007) 205139.
18. "Biophysical characterization of V3-lipopeptide liposomes influencing HIV-1 infectivity" Apostolos K. Rizos, Stavroula Baritaki, Ioannis Tsikalas, David C. Doetschman, Demetrios A. Spandidos, Elias Krambovitis  
*Biochemical and Biophysical Research Communications* 355 (2007) 963–969.
19. "Electrostatic Modelling of Peptides Derived from the V3-Loop of HIV-1 gp120: Implications for their Interactions with the N-Terminal Peptide of CCR5" Dimitrios Morikis, Apostolos K. Rizos, Demetrios A. Spandidos, Elias Krambovitis *Int. J. Mol. Medicine* **19** (2007) 343-351.
20. "NMR structural analysis of the HIV-1 GP120 V3 - CCR5 co-receptor N-terminal interaction" Galanakis PA, Kandias N, Spyroulias GA, Sioumpara M, Morikis D, Rizos A, Krambovitis E *J. of Peptide Sc.* **12** (2006) 196.
21. "Characterization of the interaction between peptides derived from the gp120/V3 domain of HIV-1 and the amino terminal of the chemokine receptor CCR5 by NMR spectroscopy and light scattering" Apostolos K. Rizos, Ioannis Tsikalas, Dimitrios Morikis, Petros Galanakis, Georgios A. Spyroulias, Elias Krambovitis *Journal of Non-Crystalline Solids* 352 (2006) 4451–4458.
22. "Characterization of amphiphilic poly-N-vinylpyrrolidone derivatives by Dynamic Light Scattering" Apostolos K. Rizos, Ioannis Tsikalas, Aristidis M. Tsatsakis and Michail I. Shtilman *Journal of Non-Crystalline Solids* 352 (2006) 5055-5059.
23. "Conformational Properties of HIV-1 gp120/V3 Immunogenic Domains" Petros A. Galanakis, Georgios A. Spyroulias, Apostolos K. Rizos, Panagiotis Samolis and Elias Krambovitis *Current Medicinal Chemistry*, 12 (2005) 1551-1568.
24. "NMR conformational studies of the interaction between the V3 loop of HIV-1 coat glycoprotein gp120 and chemokine receptor CCR5, at peptide level" Galanakis PA, Kandias N, Spyroulias GA, Sioumpara M, Morikis D, Rizos A, Krambovitis E *FEBS J.* **272** (2005) 548.
25. "Molecular size determination of a membrane protein in surfactants by light scattering" Michalis Aivaliotis, Panagiotis Samolis, Elefteria Neofotistou, Herve Remigy, Apostolos K. Rizos and Georgios Tsiotis *Biochimica et Biophysica Acta* **1615** (2003) 69–76.
26. "Light Scattering Characterization of Synthetic MUC-1 Peptides and their Behavior in Dilute Solution" Apostolos K. Rizos, D. Spandidos and Elias Krambovitis *International Journal of Molecular Medicine* **12** (2003) 559-563.

27. "Structure vs release-rate relationships in polymeric esters of plant growth regulators" M. I. Shtilman A. M. Tsatsakis., A. K. Alegakis, P. S. Voskanyan, I. M. Shaskova, A. K. Rizos and E. Krambovitis *J. of Materials Science* **37** (2002) 1– 6
28. "New polymeric systems with controlled release action: a light scattering investigation" J. Alifragis, A. K. Rizos, A. M. Tsatsakis, M. Tzatzarakis and Michail Shtilman, *Journal of Non-Crystalline Solids* 307-310, 882-886 (2002).
29. "Immunoreactivity and light scattering studies of polyvinyl pyrrolidone polymeric derivatives", S. Baritaki, E. Krambovitis, J. Alifragis, A. K. Rizos, M. Shtilman and A. M. Tsatsakis, *Journal of Non-Crystalline Solids* 307-310, 898-904 (2002).
30. "Light scattering and in vitro biocompatibility studies of polyvinylpyrrolidone derivatives with amino acid-dependent groups" Stavroula Baritaki, George N. Tzanakakis, John Alifragis, Alexis Zafiropoulos, Ravshan I. Tashmukhamedov, Aristidis Tsastakis , Mikhail I. Shtilman, Apostolos K. Rizos , Elias Krambovitis. *J. of Biomedical Materials Research* 830, 63(6) 2002.
31. "Amphiphilic poly-N-vinylpyrrolidones: synthesis, properties and liposome surface modification" V.P. Torchilin, T.S. Levchenko, K.R. Whiteman, A.A. Yaroslavov, A.M. Tsatsakis, A.K. Rizos, E.V. Michailova, M.I. Shtilman., *Biomaterials*, 22, 3035-3044 (2001).
32. "Optical Birefringence of Polyisobutylene during Creep and Recovery" P. H. Mott, A. K. Rizos and C. M. Roland *Macromolecules* **34**, 4476, (2001).
33. "Near Constant Loss from Conductivity Relaxation Measurements in Glassy and Crystalline  $\text{LiAlSi}_2\text{O}_6$ " A. K. Rizos, J. Alifragis , K. L. Ngai and P. Heijmans *J. Chem. Phys.* **114**, 931 (2001).
34. "Amphiphilic Poly-N-vinylpyrrolidones, Synthesis, Properties and Liposome Surface Modification" K. R. Whiteman, T. S. Levchenko, M. I. Shtilman, E. V. Mikhailova, A. A. Yaroslavov, A. M. Tsatsakis, A. K. Rizos and V. P. Torchilin *Control. Rel. Bioact. Mater.* **27**, 8144 (2000).
35. "Study of Dichlophenac Polymeric Derivative with 12-Doxyl Spin Probe" A. K. Rizos, D.C. Doetschman, D. W. Dwyer, A. M. Tsatsakis and M.I. Shtilman *Polymer* **41**, 1131 (2000).
36. "Dynamics of Self-release Polymeric Derivatives" A. K. Rizos, A. M. Tsatsakis, M. I. Shtilman, D. C. Doetschman *ABS Papers American Chemical Society* **218**, 14 (1999).
37. "A Positronium Annihilation Lifetime and Dynamic Mechanical Study of TOP Plasticized BPA-PC and TMBPA-PC" C. Xiao, J. Wu, L. Yang, A. F. Yee, L. Xie, D. Gidley, K. L. Ngai and A. K. Rizos *Macromolecules* **32**, 7913 (1999).
38. "Amphiphilic derivatives of poly(N-vinylpyrrolidone)" M.I. Shtilman, II Tverdokhlebova, M.Y. Yarmysh, E.V. Mikhailova, A.M. Tsatsakis, V.P. Torchilin, A. K. Rizos

VYSOKOMOLEKULYARNYE SOEDINENIYA SERIYA A & SERIYA B **41** (5), 906 (1999).

39. "A Dielectric Relaxation Study of tris(2-ethyl-hexyl)phosphate (TOP) plasticized tetramethyl bisphenol-A-polycarbonate (TMBPA-PC)" A. K. Rizos, L. Petihakis, K. L. Ngai, J. Wu and A. F. Yee  
*Macromolecules* **32**, 7921 (1999).
40. "Amphiphilic Derivatives of Poly(*N*-vinylpyrrolidone)" M. I. Shtilman, I.I. Tverdokhlebbova, M. Yu. Yarmysh, E. V. Mikhailova, A. M. Tsatsakis, V. P. Torchilin and A. K. Rizos  
*Polymer Science, Ser. B*, **41**, 906 (1999).
41. "Experimental Determination of the Cooperative Length Scale of a Glass-forming Liquid near the Glass Transition" A. K. Rizos and K. L. Ngai  
*Physical Review E* **59**, 612 (1999).
42. "Amphiphilic polymers of *N*-vinylpyrrolidone as potential modifiers for liposome membranes" Shtilman M.I.; Torchilin V.P.; Tsatsakis A.M.; Mihailova E.V.; Rizos A.; Yaroslavov A.A.; Shashkova I.M.  
*Proceedings of the Controlled Release Society* **26**, 1068, (1999)
43. "Local Segmental Dynamics of Low Molecular Weight Polystyrene: New Results and Interpretation" A. K. Rizos, and K. L. Ngai  
*Macromolecules* **31**, 6217 (1998)
44. "Reduction of the Glass Temperature of Thin Freely-Standing Polymer Films Caused by the Decrease of the Coupling Parameter in the Coupling Model" K. L. Ngai, A. K. Rizos and D. J. Plazek  
*J. Non-Cryst. Solids* **235-237**, 435 (1998).
45. "Dynamic Light Scattering Study of 1-Naphthylacetic Acid Polymeric Derivative, a Novel Plant Hormone" A. K. Rizos, A. M. Tsatsakis, M. I. Shtilman, W. Brown  
*Polymer* **39**, 4729 (1998).
46. "Light Scattering Investigation of Self-Release Polymeric Derivatives" A. K. Rizos, A. M. Tsatsakis, M. I. Shtilman, W. Brown  
*J. Non-Cryst. Solids* **235-237**, 652 (1998).
47. "Dynamic Light Scattering Study of 3-indolbutyric Acid Polymeric Derivative" A. K. Rizos, A. M. Tsatsakis, M. I. Shtilman, W. Brown  
*Polymer* **39**, 1753 (1998).
48. "Cooperative Length Scale of Aroclor near its Dynamic Glass Transition" A. K. Rizos and K. L. Ngai  
*Materials Res. Soc.* **455**, 141 (1997).
49. "Possible Causes of the Change of Dynamics in Glass-Forming Materials Subjected to Reduced Dimension" K. L. Ngai and A. K. Rizos  
*Materials Res. Soc.* **455**, 147 (1997).
50. "Distribution of Reorientational Times of Optically Anisotropic Molecular Liquids from Depolarized Light Scattering Studies" K. L. Ngai, G. Floudas and A. K. Rizos  
*J. Chem. Phys.* **106**, 6957, (1997).

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51. "Viscoelastic Properties of Amorphous Polymers V: a Coupling Theory Analysis of the Thermorheological Complexity of Polyisobutylene in the Glass-Rubber Transition Zone" K. L. Ngai, D. J. Plazek and A. K. Rizos  
*J. Polym. Sci. Polym. Phys. Ed.*, **35**, 599 (1997).
52. "Local Segmental and sub-Rouse Modes in Polyisobutylene by Photon Correlation Spectroscopy" A. K. Rizos, K. L. Ngai and D. J. Plazek  
*Polymer* **38**, 6103 (1997)
53. "A New Depolarized Mode in a Binary Polymer Blend in the Critical Region"  
A. K. Rizos  
*Polymer* **37**, 5743 (1996).
54. "Parameterless Explanation of the Non-Arrhenius Conductivity in Glassy Fast Ionic Conductors" K. L. Ngai and A. K. Rizos  
*Physical Review Letters* **76**, 1296 (1996)
55. "Dynamic Heterogeneity and Complexity of Chemical Structure in Amorphous Side Chain Polymers" G. Meier, F. Kremer, G. Fytas and A. K. Rizos  
*J. Polym. Sci. Polym. Phys. Ed.* **34**, 1391 (1996).
56. "Component Dynamics in Polystyrene/Bis-2-ethylhexyl phthalate Solutions by Polarized and Depolarized Light Scattering and Dielectric Spectroscopy" A. K. Rizos, R. M. Johnsen, W. Brown and K. L. Ngai  
*Macromolecules* **28**, 5450 (1995).
57. "Dynamics in a Polystyrene/additive Mixture as Studied by Dynamic Light Scattering and Dielectric Relaxation" A. K. Rizos, R. M. Johnsen, W. Brown and K. L. Ngai  
*ABS Papers American Chemical Society* **209**, 194 (1995).
58. "Concentration Fluctuation Effects on the Chain Orientation in Polymer Blends in the Critical Region" A. K. Rizos, G. Fytas and A. N. Semenov,  
*J. Chem. Phys.* **102**, 6931 (1995).
59. "Determination of the coupling parameter of local segmental motion in poly(isobutylene) by photon correlation spectroscopy" A. K. Rizos, T. Jian and K. L. Ngai ,  
*Macromolecules* **28**, 517 (1995).
60. "Concentration Fluctuation Effects on the Chain Orientation in Polymer Blends in the Critical Region" A. K. Rizos, G. Fytas and A. N. Semenov,  
*ABS Papers American Chemical Society* **209**, 357 (1995).
61. "Dynamics in a Polystyrene/additive Mixture as Studied by Dynamic Light Scattering and Dielectric Relaxation" A. K. Rizos, W. Brown, R. M. Johnsen and K. L. Ngai, *Polymer Preprints* 1995.
62. "Concentration Fluctuation Effects on Chain Orientation Dynamics of Polymer Blends in the Critical Region" A. K. Rizos, G. Fytas and A. N. Semenov, *Polymer Preprints* 1995.
63. "Solvent Rotational Mobility in 1,2-Polybutadiene/Aroclor Solutions by Dielectric Relaxation and Fabry-Perot Interferometry" A. K. Rizos and K. L. Ngai  
*Macromolecules* **27**, 7076 (1994).

64. "Viscous Liquids and Glass Transitions" K. L. Ngai, G. Floudas and A. K. Rizos  
*J. Non-Cryst. Solids* **172-174**, 420 (1994).
65. "A connection between the Modification of Solvent Dynamics by Polymer in Polymer Solutions and Component Dynamics in Miscible Polymer Blends" K. L. Ngai and A. K. Rizos  
*Macromolecules* **27**, 4493 (1994).
66. "Dielectric and Mechanical Relaxation in PMPS, BMC, and their Mixtures" P. G. Santangelo, C. M. Roland, K. L. Ngai, A. K. Rizos and H. Katerinopoulos  
*J. of Non-Cryst. Solids* **172-174**, 1084 (1994).
67. "Interdiffusion in Dilute Polymer Mixtures. A Subtle Concentration Effect" T. Jian, S. H. Anastasiadis, A. K. Rizos, G. Fytas and A. Z. Akcasu  
*J. Chem. Phys.* **101**, 3222 (1994).
68. "Dynamics in Concentrated Solutions of Poly(methyl methacrylate)/Bis(2-ethylhexyl phthalate)" G. Floudas, A. K. Rizos, W. Brown and K. L. Ngai  
*Macromolecules* **27**, 2719 (1994).
69. "Modification of Solvent Relaxation Dynamics in Block Copolymer Solutions" A. K. Rizos, N. Hadjichristidis and S. Pispas  
*Polymer Preprints* **35**, 636 (1994).
70. "Solvent Reorientation in Block Copolymer Solutions" A. K. Rizos, K. L. Ngai, S. Pispas and N. Hadjichristidis  
*J. of Non-Cryst. Solids* **172-174**, 790 (1994).
71. "Local Motions in Concentrated Solutions of Poly(Methyl methacrylate)/Bis(2-ethylhexyl phthalate)" A. K. Rizos, G. Floudas and W. Brown  
*J. Non-Cryst. Solids* **172-174**, 786 (1994).
72. "Modification of Solvent Relaxation Dynamics in Block-Copolymer Solutions" A. K. Rizos, N. Hadjichristidis, S. Pispas and K.L. Ngai  
*ABS Papers American Chemical Society* **207**, 385 (1994).
73. "Local Molecular Motion in Polyurethane-Poly(methyl methacrylate) Interpenetrating Polymer Networks" A. K. Rizos, G. Fytas, R. J. Ma, C. H. Wang, V. Abetz and G. C. Meyer  
*Macromolecules* **26**, 1869 (1993).
74. "Segmental and Chain Dynamics in a Diblock Copolymer Melt near the Microphase Separation Transition" G. Fytas, A. K. Rizos, I. Alig, F. Kremer and J. Roovers *Polymer* **34**, 2263 (1993).
75. "Dynamic Light Scattering Study of a 1,4-Isoprene-*b*-Styrene Copolymer" A. K. Rizos, G. Fytas, J. Roovers, K. L. Ngai  
*Prog. Coll. and Polym. Sci.* **91**, 72 (1993).
76. "Solvent Reorientation Dynamics in Aroclor/Polymer Solutions" A. K. Rizos, K. L. Ngai and G. Fytas  
*Prog. Coll. and Polym. Sci.* **91**, 135 (1993).
77. "Anomalous Reduction of Solvent Friction in Aroclor Solutions of 1,2-Polybutadiene" A. K. Rizos and K. L. Ngai

- Phys. Rev. B* **46**(13), 8126 (1992).
78. "Reorientation Dynamics in Aroclor/Polymer Systems" A. K. Rizos  
*ABS Papers American Chemical Society* **203**, 338 (1992).
79. "Segmental and Chain Dynamics in Disordered Block Copolymers" G. Fytas, I. Alia, A. K. Rizos, J. Kanetakis and F. Kremer  
*ABS Papers American Chemical Society* **203**, 154 (1992).
80. "Segmental Motion in Poly(styrene-*b*-1,4-isoprene) Block Copolymers in the Disordered State" A. K. Rizos, G. Fytas and J. C. Roovers  
*J. Chem. Phys.* **97**, 6925 (1992).
81. "Solvent Reorientation Dynamics in Aroclor/Polymer Systems" A. K. Rizos  
*Polymer Preprints* **33**, 132, (1992).
82. "Segmental and Chain Dynamics in Disordered Block Copolymers" G. Fytas, A. K. Rizos, I. Alig, J. Kanetakis, F. Kremer and J. Roovers  
*Polymer Preprints* **33**, 86, (1992).
83. "Fast Segmental Dynamics in Poly(Methyl Methacrylate)/Polyurethane interpenetrating Polymer Networks" A. K. Rizos, G. Fytas, C. H. Wang and G. C. Meyer  
*Prog. Colloid Polym. Sci.* **90**, 232 (1992).
84. "Brillouin Light Scattering and Ultrasonic Study of the curing reaction in epoxy resins" I. Alig, Katja Nancke, A. K. Rizos and G. Fytas.  
*J. of Appl. Polym. Sci.* **44**, 829 (1992).
85. "Solvent Mobility in Polystyrene/Aroclor and Polybutadiene/Aroclor Solutions 2. A Photon Correlation Study" A. K. Rizos, G. Fytas, T.P. Lodge and K.L. Ngai  
*J. Chem. Phys* **95**, 2980 (1991).
86. "Dynamic Light Scattering and Low Frequency Raman Scattering Study of Ionic  $KNO_3$ - $Ca(NO_3)_2$  mixtures" E. A. Pavlatou, G. N. Papatheodorou, A. K. Rizos and G. Fytas  
*J. of Non-Crystal. Solids* **88**, 131 (1991).
87. "Dynamic Light Scattering Study of Ionic  $KNO_3$ - $Ca(NO_3)_2$  Mixtures" E. A. Pavlatou, A. K. Rizos, G. N. Papatheodorou and G. Fytas  
*J. Chem. Phys.* **94**, 224 (1991).
88. "Solvent Mobilities in Polystyrene/Aroclor Solutions. A Depolarized Rayleigh Scattering Study" G. Fytas, A. K. Rizos, G. Floudas and T. P. Lodge  
*J. Chem. Phys* **93**, 5096 (1990).
89. "Diffusion in dilute Polystyrene/ Poly(phenylmethyl siloxane) Blends" A. K. Rizos and G. Fytas  
*Macromolecules* **22**, 4136 (1989).
90. "Resonance Raman Studies of Myoglobin Single Crystals" D. Morikis, T. Sage, A. K. Rizos and P. Champion  
*J. Am. Chem. Soc.* **110**, 6341 (1988).
91. "Resonance Raman Detection of Bound Dioxygen in Cytochrome P-450<sub>cam</sub>" O. Bangcharoenpaurpong, A. K. Rizos and P. Champion  
*University of Crete, Chemistry Department*

- J. Biol. Chem.* **261**, 8089 (1986).
92. "The Cooperativity of Nitric Oxide Hemoglobin Ligand Exchange in Single Crystals as studied by EPR" D. C. Doetschman, A. K. Rizos and J. Szumowski  
*J. Chem. Phys.* **81**, 1185 (1984).
93. "EPR Study of the Structure and Spin Distribution at the Binding Site in Human Nitrosyl-Hemoglobin Single Crystals" S. Utterback, D. C. Doetschman, J. Szumowski and A. K. Rizos  
*J. Chem. Phys.* **78**, 5874 (1983).

### PAPERS IN BOOKS

- I. "Application of Photon Correlation Spectroscopy to study Diffusional Dynamics in Polymer Blends" J. Kanetakis, A. K. Rizos and G. Fytas in *Reactive and Flexible Molecules in Liquids* Th. Dorfmuller (ed) Klewer Academic Publishers 1989.
- II. "Recent Applications of Laser Light Scattering to the Dynamics of Polymer Systems" G. Fytas, G. Floudas, J. Kanetakis and A. K. Rizos in *Laser and Applications* C. Siomos (ed) 1989.
- III. "Interactions between Poly(styrene-co-styrene sulfonic acid) and Poly(methyl methacrylate-co-4-vinyl pyridine) in Dimethyl Sulfoxide Solution by Photon Correlation Spectroscopy" A. K. Rizos and G. Fytas. NATO-ASI in *Large-Scale Molecular Systems: Quantum and Stochastic Aspects. Beyond the Simple Molecular Picture*. W. Gans, A. Blumen, A. Amann (Editors) Plenum Publishing Company 1990.
- IV. "Dynamics in a Polystyrene/additive Mixture as Studied by Dynamic Light Scattering and Dielectric Relaxation" A. K. Rizos, W. Brown, R. M. Johnsen and K. L. Ngai, *Polymer Preprints* 1995.
- V. "Concentration Fluctuation Effects on Chain Orientation Dynamics of Polymer Blends in the Critical Region" A. K. Rizos, G. Fytas and A. N. Semenov, *Polymer Preprints* 1995.
- VI. "Cooperative Length Scale of Aroclor near its Dynamic Glass Transition" A. K. Rizos and K. L. Ngai in *Non Equilibrium Phenomena in Supercooled Fluids, Glasses and Amorphous Materials* M. Giordano, D. Leporini and M. P. Tosi (Editors) 1996.
- VII. "The Dynamics of Interacting Systems: Glassy Ionic Conductors and Glass-Forming Materials" Materials Research Society symposia proceedings. 411, (1996): 85  
 K. L. Ngai and A. K. Rizos.

## **RECENT PRESENTATIONS**

1. "Interactions between Poly(styrene-co-styrene sulfonic acid) and Poly(methyl methacrylate-co-4-vinyl pyridine) in Dimethyl Sulfoxide Solution by Photon Correlation Spectroscopy" A. K. Rizos G. Fytas and A. Eiesenberg NATO-ASI in Large-Scale Molecular Systems:Quantum and Stochastic Aspects. Beyond the Simple Molecular Picture, Italy 1990.
2. "Dynamic Light Scattering and Low Frequency Raman Scattering of Ionic  $\text{KNO}_3$ - $\text{Ca}(\text{NO}_3)_2$  Mixtures" A. K. Rizos, E. A. Pavlatou, G.N. Papatheodorou and G. Fytas International Discussion Meeting on Relaxations in Complex Systems, Agia Pelagia, Heraklion, June 1990.
3. "A Photon Correlation Study of Solvent Mobility in Polystyrene/Aroclor and Polybutadiene/Aroclor Solutions" A. K. Rizos, G. Fytas, T. P. Lodge and K. L. Ngai) International Discussion Meeting on Relaxations in Complex Systems, Agia Pelagia, Heraklion, June 1990.
4. "Solvent Mobility in Polystyrene/Aroclor and Polybutadiene/Aroclor Solutions by Dynamic Light Scattering" G. Floudas, G. Fytas, A. K. Rizos and T. P. Lodge 1st Liquid Matter Conference, 7-11 July 1990, Lyon, France.
5. "Solvent Reorientation Dynamics in Aroclor/Polymer systems" A. K. Rizos, K. L. Ngai and G. Fytas) Applications of Scattering Methods to the Dynamics of Polymer Systems, Heraklion, Crete, Greece, September 1991.
6. "Dynamic Light Scattering Study of (1,4-Isoprene-b-styrene) Block Copolymers" A. K. Rizos, J. E. L. Roovers and G. Fytas) Applications of Scattering Methods to the Dynamics of Polymer Systems, Heraklion, Crete, Greece, September 1991.
7. "Relaxations in epoxy resins during the network formation as studied by ultrasonic methods, dynamic light scattering and dielectric relaxation" I. Alig, D. Lellinger, K. Nancke, G. Fytas, A. K. Rizos, G. P. Johari 29th Europhysics Conference on Macromolecular Physics on the Physics of Polymer Networks.
8. "Local Molecular Motion in Polyurethane-Poly(methyl methacrylate) interpenetrating Polymer Networks" A. K. Rizos SDLS II, Burg auf Fehmarn, Germany, March 3 1993.
9. "Anomalous Reduction of Solvent Friction in Aroclor/1,2-Polybutadiene Solutions" A. K. Rizos and K. L. Ngai SDLS II, Burg auf Fehmarn, Germany, March 3 1993.

- 10.“Segmental and Chain Dynamics in Multi component Polymer Melts” G. Fytas, A. K. Rizos, K. Karatasos, I. Alig and F. Kremer Regensburg, Germany, 1993.
- 11.“Relaxation Dynamics of Solvent Modified by Polymer” A. K. Rizos, N. Hadjichristidis and K. L. Ngai 2nd International Discussion Meeting on Relaxations in Complex Systems, 28 June-8 July 1993, Alicante, Spain.
- 12.“Density and Concentration Fluctuations in Solutions of Poly(methyl methacrylate)/Bis(2-ethylhexyl phthalate)” A. K. Rizos, G. Floudas and W. Brown 2nd International Discussion Meeting on Relaxations in Complex Systems, 28 June-8 July 1993, Alicante, Spain.
- 13.“Critical Behavior in a Binary Polymer Mixture as Studied by Light Scattering and Dielectric Spectroscopy” A. K. Rizos and G. Fytas 2nd International Discussion Meeting on Relaxations in Complex Systems, 28 June-8 July 1993, Alicante, Spain.
- 14.“Inelastic and Quasielastic Light Scattering from Poly(n-hexylmethacrylate)” G. Meier, G. Fytas, A. K. Rizos, L. Giebel, G. Floudas and F. Kremer 2nd International Discussion Meeting on Relaxations in Complex Systems, 28 June-8 July 1993, Alicante, Spain.
- 15.“Modification of Solvent Reorientation Dynamics in Block Copolymer Solutions” A. K. Rizos and N. Hadjichristidis 6th International Symposium on Polymer Analysis and Characterization, July 11-14, 1993, Aghia Pelagia, Crete, Greece.
- 16.“Modification of Solvent Relaxation Dynamics in Block Copolymer Solutions” A. K. Rizos, N. Hadjichristidis and S. Pispas National Meeting of the American Chemical Society, Symposium on Block Copolymer Dynamics, San Diego, California, March 13-18, 1994.
- 17.“Dynamics in a Polystyrene/additive Mixture as Studied by Dynamic Light Scattering and Dielectric Relaxation” A. K. Rizos, W. Brown, R. M. Johnsen and K. L. Ngai, 209<sup>th</sup> National Meeting of the American Chemical Society, Anaheim, California April 2-6, 1995.
- 18.“Concentration Fluctuation Effects on Chain Orientation Dynamics of Polymer Blends in the Critical Region” A. K. Rizos, G. Fytas and A. N> Semenov, 209<sup>th</sup> National Meeting of the American Chemical Society, Anaheim, California, U.S.A. April 2-6, 1995.
- 19.“The Dynamics of Interacting systems: Glassy Ionic Conductors and Glass-forming Materials” K. L. Ngai and A. K. Rizos , *Materials Research Society MRS Fall Meeting, Boston, U.S.A December 1996.*

20."3rd International Discussion Meeting on Relaxations in Complex Systems", Vigo, Spain,  
July 1997.

### **INVITED SEMINARS**

- Northeastern University, Physics Department, Boston, USA, April 1985.
- University of Crete, Department of Chemistry, Heraklion, Crete, Greece, March 1987.
- Technische Hochscule Merseburg, Physics Department, Merseburg, Germany, October 1989.
- Binghamton Section of the American Chemical Society, New York, USA, December 1990.
- EPS Conference on Polymer Networks, Alexisbad, Germany, September 1991.
- 2<sup>nd</sup> Meeting of the Hellenic Polymer Association, Athens, Greece, December 1991.
- epf 92 European Polymer Federation Conference in Baden-Baden, Germany, September 30, 1992.
- University of Uppsala, Institute of Physical Chemistry, Sweden, October 1992.
- SDLS II, Burg auf Fehmarn, March 1993, Germany.
- Binghamton Section of the American Chemical Society, New York, USA, March 1993.
- National Technical University of Athens, Department of Physics, May 1993.
- Workshop in Polymer Science, University of Patras, Department of Chemical Engineering, November 1993.
- 207<sup>th</sup> National Meeting of the American Chemical Society, Symposium on Block Copolymer Dynamics, San Diego, California, March 13-18, 1994.
- 209<sup>th</sup> National Meeting of the American Chemical Society, Anaheim, California, April 2-6, 1995.
- Materials Research Society FALL 96 Meeting, Boston, MA, 2-6 December 1996.
- 3rd International Discussion Meeting on Relaxations in Complex Systems, Vigo, Spain, July 1997.
- Naval Research Laboratory, Chemistry Division, Washington, DC, April 1998.
- Materials Research Society FALL 2000 Meeting, Boston, MA, 2-6 December 1996.
- 4th International Discussion Meeting on Relaxations in Complex Systems, Hersonissos, Crete, Greece, June 2001.
- Materials Research Society FALL 2002 Meeting, Boston, MA, December 2002.
- University of California at Riverside, USA, April 2003.

- 5th International Discussion Meeting on Relaxations in Complex Systems, Lille, France, July 2005.
- "IV Workshop on Non Equilibrium Phenomena in Supercooled Fluids, Glasses and Amorphous Materials" University of Pisa, September 2006.
- 6th International Discussion Meeting on Relaxations in Complex Systems, University of Rome, Italy 2009.
- 12<sup>th</sup> International Conference of the Institute of Human Virology of the University of Maryland, Italy 2010.
- 7th International Discussion Meeting on Relaxations in Complex Systems, Universitat Politècnica de Catalunya Barcelona, Spain 2013.