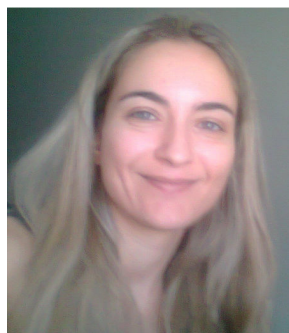


Curriculum Vitae

Anna Panagopoulou



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Date of birth: 16.06.1981; Citizenship: Greek

PERSONAL PROFILE

I studied physics and obtained an MSc degree in nanotechnology and materials science in the National Technical University of Athens (ntua). I did my PhD research in the Dielectrics Research Group in ntua with professor Polycarpos Pissis. My PhD research focuses on the study of the relationship between the function, molecular structure and dynamics of hydrated proteins and other biomolecules. Particular interest is given on the evaluation of water content/structure in complex biological environment and the effect on the dynamic biological function and vice versa. The experimental techniques employed for this purpose are mainly Dielectric Relaxation Spectroscopy and Differential Scanning Calorimetry. My general scientific interests include the study of the mechanism of relaxation phenomena and glass transition of polymers and polymer nanocomposites.

ACADEMIC STUDIES

2009-2013: PhD in Physics

Department of Physics, School of Applied Mathematical and Physical Science, National Technical University of Athens (NTUA), Athens, Greece

PhD thesis: *'Molecular dynamics and phase transitions in protein-water systems'*.

2006-2008: MSc in Microsystems & Nanodevices

School of Applied Mathematical and Physical Science, National Technical University of Athens (NTUA), Athens, Greece

Master thesis: *'Study of molecular dynamics and properties in poly (dimethylsiloxane)/silica nanocomposites'*.

1999-2006: Diploma in Applied Mathematical and Physical Science

School of Applied Mathematical and Physical Science, National Technical University of Athens (NTUA), Athens, Greece

Diploma thesis: *'Preparation of poly (ethyl acrylate)/silica nanocomposites and study of their structure-properties relationship'*.

Teaching EXPERIENCE

2007-2013: Research assistance

Department of Physics, School of Applied Mathematical and Physical Science, National Technical University of Athens (NTUA), Athens, Greece

- Teaching assistance in laboratory lessons of Physics and Material Science, undergraduate and postgraduate.

- Guidance of Diploma and MSc theses.

PUBLICATIONS in peer reviewed scientific journals

- 2013** A. Panagopoulou, J.V. Molina, A. Kyritsis, M. M. Pradas, A.V. Lluch, G.G. Ferrer, P. Pissis. *Glass Transition and water dynamics in hyaluronic acid hydrogels*. **Food Biophysics**, 8, 192-202, 2013.
- 2013** A. Panagopoulou, A. Kyritsis, M. Vodina, P. Pissis. *Dynamics of uncrystallized water and protein in hydrated elastin studied by thermal and dielectric techniques*. **Biochim. Biophys. Acta**, 1834, 977-988, 2013.
- 2012** A. Panagopoulou, A. Kyritsis, N. Shinyashiki, P. Pissis. *Protein and water dynamics in bovine serum albumin-water mixtures over wide ranges of composition*. **J. Phys. Chem. B**, 116, 4593-4602, 2012.
- 2012** A. Kyritsis, A. Panagopoulou, P. Pissis, R. Sabater i Serra, J. L. Gomez Ribelles and N. Shinyashiki. *Water and protein dynamics in protein-water mixtures over wide range of composition*. **IEEE Trans. Diel. Elect. Insul.**, 19, 1239-1246, 2012.
- 2011** A. Panagopoulou, A. Kyritsis, R. Sabater I Serra, J. L. Gomez Ribelles, N. Shinyashiki, P. Pissis. *Glass transition and dynamics in BSA-water mixtures over wide ranges of composition studied by thermal and dielectric techniques*. **Biochim. Biophys. Acta**, 1814, 1984-1996, 2011.
- 2011** A. Panagopoulou, A. Kyritsis, A. M. Aravantinou, D. Nanopoulos, R. Sabater i Serra, J. L. Gómez Ribelles, N. Shinyashiki, P. Pissis. *Glass transition and dynamics in lysozyme-water mixtures over wide ranges of composition*. **Food Biophysics**, 6, 199-209, 2011.
- 2011** P. Klonos, A. Panagopoulou, A. Kyritsis, L. Bokobza, P. Pissis, *Dielectric studies of segmental dynamics in poly(dimethylsiloxane)/titania nanocomposites*. **Journal of Non-Crystalline Solids**, 657, 610-614, 2011.
- 2010** P. Klonos, A. Panagopoulou, L. Bokobza, A. Kyritsis, V. Peoglos, P. Pissis. *Comparative studies on effects of silica and titania nanoparticles on crystallization and complex segmental dynamics in poly(dimethylsiloxane)*. **Polymer**, 51, 5490-5499, 2010.

PUBLICATONS in peer reviewed conference proceedings

- 2013** K. Sasaki, A. Panagopoulou, M. Miyara, K. Fujita, W. Yamamoto, P. Pissis, A. Kyritsis, R. Kita, N. Shinyashiki, S. Yagihara. *Dynamics of water and hydrated gelatin in partially crystallized mixtures*. AIP Conf. Proc., 1518, 288-291, 2013.
- 2011** A. Kyritsis, A. Panagopoulou, P. Pissis, R.S. I Serra, J.L. Gomez Ribelles, N. Shinyashiki. *Water and Protein dynamics in protein-water mixtures over wide ranges of composition*. Proc. 14th International Symposium on Electrets (ISE 14), F. Henn, S. Devautour-Vinot, J. Castellon (eds), IEEE, N.Y. (2011), Montpellier (France) 27-30 August 2011, pp. 49 – 50
- 2011** A. Panagopoulou, A. Kyritsis, A. M. Aravantinou, D. Nanopoulos, J. L. Gómez Ribellez, R. Sabater i Serra, N. Shinyashiki, P. Pissis. *Glass transition and dynamics in hydrated proteins over wide ranges of composition studied by thermal and dielectric techniques*. Proc. 9th International Conference on Electromagnetic Wave Interaction with Water and Moist Substances, David B. Func, Samir Trabelsi, Richard O. Pierce (Eds), Kansas City, Missouri, USA, May 31-June 3, 2011, pp 62 - 69

LANGUAGES

- **Greek** (mother tongue)
- **English** (fluent)
- **German** (very good)
- **Spanish** (good)

REVIEWER OF SCIENTIFIC JOURNALS

Journal of Molecular Structure, Wiley & Sons, Journal of Physical Chemistry Letters, Biopolymers Journal, Biomacromolecules Journal.

APPENDIX

Participation in scientific projects

1.09.2010-31.09.2013

PhD Scholarship, Project leader, *Molecular dynamics and phase transitions in protein-water systems*, Herakleitus II, Greek Ministry of Education, Lifelong Learning and Religious Affairs

1.12.2007-30.11.2009

Research Project: *Experimental investigation of the cooperative characteristics of the glass transition in amorphous polymers*, Internal competitive project of NTUA for the support of basic research

Scientific Visits

01.07.2010-31.08.2010

Institute of Surface Chemistry (NAS), Kiev, Ukraine (in the frame of COMPOSITUM, *Hybrid nanocomposites and their applications*, E.E., SP3-People, PIRSES-GA-2008-230790)

02.2005-05.2005

Centro de Biomateriales e Ingeniería Tisular, Universidad Politécnica de Valencia, Valencia, Spain (Diploma thesis in the frame of ERASMUS program)

Participation in Scientific Seminars-Workshops

2011, December 5-6

Le Studium Conference, Water in Biological Systems, Le Centre national de la recherche scientifique (CNRS), Orléans, France.

2009, November 30

Institute of Standardization (DIN), Berlin, Germany, Technical seminar: 'Standardization seminar on temperature calibration in case of ultra fast differential scanning calorimeters' (in the frame of NaPolyNet, *Setting up research-intensive clusters across the EU on characterization of polymer nanostructures*, E.E., FP7, CSA, project number 218331, 2008 – 2011)

2009, May 13-15

Demonstration Course - Characterization Methodology and Tools for New Polymer Nanostructured Materials, Greece (under the auspices of NaPolyNet: *Setting up research-intensive clusters across the EU on characterization of polymer nanostructures*, E.E., FP7, CSA, project number 218331, 2008 – 2011).

Participation in International and National Scientific Conferences

2013 -11th Mediterranean conference on calorimetry and thermal analysis, (MEDICTA), 12-15 June 2013, Athens, Greece.

-7th International discussion meeting on relaxations in complex systems (IDMRCS 7), 21-26 July 2013, Barcelona, Spain.

2012 -5th Hellenic Conference of Thermal Analysis and Calorimetry (THERMA 2012), 25-27 May, 2012, Thessaloniki, Greece.

-BDS-Broadband Dielectric Spectroscopy and its Applications, 3-7 September 2012, Leipzig, Germany.

-Frontiers in Water Biophysics, 23-26 September 2012, Perugia, Italy.

2011 -9th International Conference on Electromagnetic Wave Interaction with Water and Moist Substances, Kansas City, Missouri, USA, May 31-June 3, 2011.

2010 -XII Polish - Ukrainian Symposium 'THEORETICAL AND EXPERIMENTAL STUDIES OF INTERFACIAL PHENOMENA AND THEIR TECHNOLOGICAL APPLICATIONS'

simultaneously with 2nd COMPOSITUM Conference 'HYBRIDE NANOCOMPOSITES AND THEIR APPLICATIONS', 24 - 28 August, 2010, Kielce - Ameliowka, Poland.

-6th International Conference on Broadband Dielectric Spectroscopy and its applications, 7-10 September 2010, Madrid, Spain.

2009 -6th International discussion meeting on relaxations in complex systems (IDMRCS), 30 August - 5 September 2009, Rome, Italy.

2008 -7th Hellenic Polymer Conference, 28 September- 1 October 2008, Ioannina, Greece.

PRESENTATIONS IN INTERNATIONAL & NATIONAL SCIENTIFIC CONFERENCES

1. P. Pissis, A. Panagopoulou, A. Kyritsis. *Protein and water dynamics in hydrated proteins*. 7th International discussion meeting on relaxations in complex systems (IDMRCS), 21-26 July 2013, Barcelona, Spain.
2. A. Panagopoulou, J. V. Molina, A. Kyritsis, M. M. Pradas, A.V. Lluch, G. G. Ferrer, P. Pissis. *Glass transition and water dynamics in partially crystallized aqueous mixtures of hyaluronic acid hydrogels*. 7th International discussion meeting on relaxations in complex systems (IDMRCS 7), 21-26 July 2013, Barcelona, Spain.
3. K. Sasaki, A. Panagopoulou, P. Pissis, A. Kyritsis, R. Kita, N. Shinyashiki, S. Yagihara. *The role of partial crystallization in the dynamics of gelatin-water mixture*. 7th International discussion meeting on relaxations in complex systems (IDMRCS 7), 21-26 July 2013, Barcelona, Spain.
4. J. L. Gómez Ribelles, R. Sabater i Serra, A. Panagopoulou, A. Kyritsis, N. Shinyashiki, P. Pissis. *Phase diagram and segmental dynamics in protein/water mixtures*. 7th International discussion meeting on relaxations in complex systems (IDMRCS 7), 21-26 July 2013, Barcelona, Spain.
5. D. Aravopoulou, A. Panagopoulou, A. Kyritsis, P. Pissis. *Aqueous solutions of casein peptone: Water dynamics and glass transition studies*. 7th International discussion meeting on relaxations in complex systems (IDMRCS 7), 21-26 July 2013, Barcelona, Spain.
6. N. Tagiara, A. Panagopoulou, A. Kyritsis, F. G. Torres, P. Pissis. *Thermal transitions of water in hydrated bacterial cellulose over wide ranges of composition*. 11th Mediterranean conference on calorimetry and thermal analysis, (MEDICTA 2013), 12-15 June 2013, Athens, Greece.
7. O. Vassiliadi, A. Panagopoulou, A. Kyritsis, P. Pissis. *Thermal transitions in hydrated collagen over wide ranges of composition*. 11th Mediterranean conference on calorimetry and thermal analysis, (MEDICTA 2013), 12-15 June 2013, Athens, Greece. (third poster prize)
8. D. Aravopoulou, A. Panagopoulou, A. Kyritsis, P. Pissis. *Glass transition and water dynamics in aqueous solutions of casein peptone*. *Frontiers in Water Biophysics*, 23-26 September 2012, Perugia, Italy.
9. K. V. Nikaki, A. Panagopoulou, A. Kyritsis, P. Pissis. *Water and protein dynamics in lysozyme-water mixtures over wide ranges of composition*. *Frontiers in Water Biophysics*, 23-26 September 2012, Perugia, Italy.
10. J. Vazquez Molina, A. Panagopoulou, A. Kyritsis, M. Monleón Pradas, A. Vallés Lluch, G. Gallego Ferrer, P. Pissis. *Molecular Dynamics of Water in Hyaluronic Acid-Silica Hydrogel Nanocomposites*. *Frontiers in Water Biophysics*, 23-26 September 2012, Perugia, Italy.
11. A. Panagopoulou, J. Vazquez Molina, A. Kyritsis, M. Monleón Pradas, A. Vallés Lluch, G. Gallego Ferrer and P. Pissis. *Molecular Dynamics of Water in Hyaluronic Acid Hydrogels*. *Frontiers in Water Biophysics*, 23-26 September 2012, Perugia, Italy.
12. P. Pissis, A. Panagopoulou, A. Kyritsis, N. Shinyashiki. *Water and Protein Dynamics in hydrated globular proteins*. *Frontiers in Water Biophysics*, 23-26 September 2012, Perugia, Italy.
13. D. Aravopoulou, A. Panagopoulou, A. Kyritsis, P. Pissis. *Glass transition and water dynamics in aqueous solutions of casein peptone*. 4th COMPOSITUM Conference Hybrid Nanocomposites and Their Applications

- and Thirteen Ukrainian-Polish Symposium Theoretical and Experimental Studies of Interfacial Phenomena and Their Technological Applications, 11-14 September 2012, Kiev, Ukraine.
14. A. Kyritsis, A. Panagopoulou, N. Shinyashiki. *Water and protein dynamics in protein-water mixtures*. BDS-Broadband Dielectric Spectroscopy and its Applications, 3-7 September 2012, Leipzig, Germany.
 15. A. Panagopoulou, A. Kyritsis, M. Vodina, P. Pissis. *Water and Protein Dynamics in Hydrated Elastin*. BDS-Broadband Dielectric Spectroscopy and its Applications, 3-7 September 2012, Leipzig, Germany.
 16. K. Sasaki, A. Panagopoulou, M. Miyara, K. Fujita, W. Yamamoto, P. Pissis, A. Kyritsis, R. Kita, N. Shinyashiki, S. Yagihara. *Glass transition and dynamics for partially crystallized gelatin water mixture studied by broadband dielectric spectroscopy*. 15th International Congress on Thermal Analysis and Calorimetry & 48th Japanese Conference on Calorimetry and thermal analysis', 20-24 August 2012, Higashi-Osaka, Japan.
 17. D. Aravopoulou, A. Panagopoulou, A. Kyritsis, P. Pissis. *Glass transition and water dynamics in aqueous solutions of casein peptone*. 5th Hellenic Conference of Thermal Analysis and Calorimetry (THERMA 2012), 25-27 May, 2012, Thessaloniki, Greece.
 18. A. Panagopoulou, A. Kyritsis, M. Vodina, P. Pissis. *Glass transition and water dynamics in hydrated elastin over wide ranges of water composition*. 5th Hellenic Conference of Thermal Analysis and Calorimetry (THERMA 2012), 25-27 May, 2012, Thessaloniki, Greece.
 19. A. Panagopoulou, K. Vartzelis-Nikakis, A. Kyritsis, A. M. Aravantinou, D. Nanopoulos, P. Pissis. *Glass Transition and Dynamics in Lysozyme-Water Mixtures*. XXVII Panhellenic conference on solid state physics and materials science 18-21 September 2011, Limassol, Cyprus.
 20. A. Panagopoulou, A. Kyritsis, A. M. Aravantinou, D. Nanopoulos, R. Sabater i Serra, J. L. Gómez Ribelles, N. Shinyashiki, P. Pissis. *Glass transition and dynamics in hydrated proteins*. 4th Hellenic Conference of Thermal Analysis and Calorimetry (THERMA 2010), 23-24 October 2010, Patras, Greece.
 21. P. Klonos, P. Pissis, A. Panagopoulou, A. Kyritsis, L. Bokobza. *Comparative studies of the effect of silica and titania nanocomposites on the molecular dynamics of poly(dimethylsiloxane)*. 4th Hellenic Conference of Thermal Analysis and Calorimetry (THERMA 2010), 23-24 October 2010, Patras, Greece.
 22. A. Panagopoulou, M. Aravantinou, D. Nanopoulos, A. Kyritsis, P. Pissis. *Glass transitions in aqueous solution of protein (hen egg lysozyme)*. 6th International Conference on Broadband Dielectric Spectroscopy and its applications, 7-10 September 2010, Madrid, Spain.
 23. A. Panagopoulou, A. S. Alcázar, A. Kyritsis, P. Pissis, J. L. Gómez Ribellez. *Dielectric and thermal studies of polymer-paraxylene binary mixtures*. XII Polish - Ukrainian Symposium 'THEORETICAL AND EXPERIMENTAL STUDIES OF INTERFACIAL PHENOMENA AND THEIR TECHNOLOGICAL APPLICATIONS' simultaneously with 2nd COMPOSITUM Conference 'HYBRIDE NANOCOMPOSITES AND THEIR APPLICATIONS', 24 - 28 August, 2010, Kielce - Ameliowka, Poland.
 24. A. Panagopoulou, K. Vartzelis-Nikakis, S. Kriptou, A. Kyritsis, P. I. Xidas, K. S. Triantafyllidis. *Studies of Molecular Dynamics in Poly(Propylene Oxide) Amines intercalated with clay*. 7th International Conference – NN10 & 4th International Summer School – ISON10 on Nanosciences & Nanotechnologies, July, 2010, Ouranopolis, Halkidiki, Greece.
 25. P. Pissis, A. Panagopoulou, P. Klonos, D. Fragiadakis, L. Bokobza. *Structure and polymer dynamics in rubber/silica and rubber/titania nanocomposites*. International Symposium 'MODERN PROBLEMS OF SURFACE CHEMISTRY AND PHYSICS', 18 - 21 May, 2010, Kiev, Ukraine.
 26. A. Panagopoulou, S. Kriptou, A. Kyritsis, P. Pissis. *Investigation of the effect of intermolecular interactions on the molecular dynamics of poly(butylenes oxide)*. 6th International discussion meeting on relaxations in complex systems (IDMRCS 6), 30 August – 5 September 2009, Rome, Italy.
 27. A. Kyritsis, S. Kriptou, A. Panagopoulou, P. I. Xidas, K. S. Triantafyllidis. *Segmental and Global chain mobility in intercalated poly(propylene oxide) amines/layered silicate nanocomposites*. 6th International discussion meeting on relaxations in complex systems (IDMRCS 6), 30 August – 5 September 2009, Rome, Italy.

- 28.** P. Pissis, A. Panagopoulou, P. Klonos, D. Fragiadakis, L. Bokobza. *Glass transition and polymer dynamics in rubber/silica and rubber/titania nanocomposites*. 6th International discussion meeting on relaxations in complex systems (IDMRCS 6), 30 August – 5 September 2009, Rome, Italy.
- 29.** A. Panagopoulou, A. Spanoudaki, P. Pissis, L. Bokobza, *Bulk and interfacial dynamics of PDMS/titania nanocomposites*. 7th Hellenic Polymer Conference, 28 September- 1 October 2008, Ioannina, Greece.
- 30.** P. Pissis, A. Kyritsis, S. Kripotou, A. Panagopoulou, P. I. Xidas, K. S. Triantafyllidis. *Dynamics of poly(propylene oxide) amines intercalated in clay*. 7th Hellenic Polymer Conference, 28 September- 1 October 2008, Ioannina, Greece.
- 31.** A. Spanoudaki, A. Panagopoulou, N. Gouvierou, M. Monleón Pradas, J. L. Gómez Ribelles, P. Pissis. *Comparative study of glass transitions and sub- T_g relaxations of poly(ethyl acrylate) and poly(ethyl methacrylate)*. 4th Workshop on non-equilibrium phenomena in supercooled fluids, glasses and amorphous materials, 17-22 September 2006, Pisa, Italy.

Athens, 2014