

Curriculum Vitae

Dr. Panagiotis A. Klonos

Applications Physicist NTUA, MSc, PhD

Personal information

Nationality: Hellenic (Greek)

Date of birth: July 9th, 1982

Address: Department of Physics, School of Applied Mathematical and Physical Sciences,
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Academic studies

2018-today Postdoctoral research. Innovative hydrogels for the active targeting and effective transfer of chemotherapeutics for the pancreatic cancer, under the supervision of Prof. Dimitrios N. Bikiaris, Aristotle University of Thessaloniki, AUTH, also in collaboration with the NTUA.

2016-2018 Postdoctoral research. *Various parameters affecting interfacial polymer properties in polymer nanocomposites*, Dielectrics Research Group, Physics Department, NTUA.

2009-2015 PhD in Physics. *Interfacial interactions and molecular dynamics in organic-inorganic nanocomposite polymeric materials*, under the supervision of Prof. Polycarpos Pissis, Dielectrics Research Group, Department of Physics, NTUA, Greece.

2007-2009 M.Sc. Microsystems & Nanodevices, NTUA, Greece.

2000-2007 B.Sc. School of Applied Mathematical and Physical Sciences, NTUA, Greece.

Military services

Done in the 22nd Tank Squadron of the Hellenic Army in the period from 21/05/2013 to 21/02/2014.

Languages

Greek (mother tongue), English (Cambridge FCE)

Published work

Consists of publications in international refereed scientific journals (**75** in total, including **2** monographs) and in refereed conference proceedings (**4** in total) and **3** book chapters. The published work has been cited by **352** articles (non self-citations) giving *h*-index ***h*=21** (according to Scopus).

Experimental Interests – Techniques

- Nanocomposite polymeric materials, biodegradable polymers, molecular dynamics, polymer-filler interfacial interactions, hydration properties, glass transition, polymer crystallization, structure-properties relationships

- Expertise in Broadband Dielectric Spectroscopy (BDS), Differential Scanning Calorimetry (DSC), Thermally Stimulated Depolarization Currents (TSDC), Equilibrium and Dynamic water Sorption Isotherms (ESI, DSI), Thermal Conductivity/Diffusivity – Laser Flash Analysis (LFA)
- Familiar with Scanning Electron Microscopy (SEM), Atomic Force Microscopy (AFM), Wide Angle X-ray Diffraction (WAXD), Infra Red spectroscopy (FTIR), Polarized Light Microscopy (PLM)

Distinctions – Prizes – Scholarship

- Inclusion in World's Top 2% Scientists for 2021 according to Prof. John Ioannidis's list (Stanford University).
- Journal Cover Image in '*Applied Nano*' of our work [Klonos, P. *et al.* **Appl. Nano** 2 (2021) 31–45]
- Seven (7) prizes for original work publications given by the Thomaidis Foundation.
- The research of PhD thesis was co-financed by the National Strategic Reference Framework (NSRF) - Research Funding Program: Heracleitus II.

Participation in research projects

- i. IKYDA, 2008 – 2009, New organic/inorganic silica/polymer hybrids: synthesis and relaxation behavior, Programme for the promotion of the exchange and scientific cooperation between Greece and Germany, (cooperation NTUA - Leibniz Institut für Polymerforschung Dresden e.V. (IPF))
- ii. COMPOSITUM, 2009 – 2013, Hybrid nanocomposites and their applications, E.E., SP3-People, PIRSES-GA-2008-230790, (coordinator J. Skubiszewska-Zieba, University of Lublin, Poland).
- iii. NAPOLYNET, 2008 – 2011, Setting up research-intensive clusters across the EU on characterization of polymer nanostructures, E.E., FP7, CSA, project number 218331 (coordinator Cl. Silvestre, ICTP, CNR, Italy).
- iv. NANOBIOMAT, 2014 – 2017, Nanostructured Biocompatible/Bioactive Materials, FP7 – PIRSES-GA-2013-612484., E.E., SP3-People (Coordinator A. Derylo-Marczewska, University of Lublin, Poland).
- v. HERACLEITUS II, Operational Program “Education and Lifelong Learning” of the National Strategic Reference Framework (NSRF).
- vi. EPANEK, ‘Erevno-Dimiourgo-Kainotomo’, ESPA 2014 – 2020 (coordinator D.N. Bikiaris, Aristotle University of Thessaloniki)

Scientific Visits

1. 2009, November – Leibniz Institut für Polymerforschung (IPF), Dresden, Germany (IKYDA Project).
2. 2010, July-August – Institute of Surface Chemistry (NAS), Kiev, Ukraine (COMPOSITUM program).
3. 2010, November-December – Polymer Physics Group, University of Rostock, Rostock, Germany (NaPolyNet project).
4. 2011, May-July – Institute of Surface Chemistry (NAS), Kiev, Ukraine (COMPOSITUM program).
5. 2014, July-September – Institute of Surface Chemistry (NAS), Kiev, Ukraine (NANOBIOMAT Program).
6. 2015, April-June – IOFFE Physical-Technical Institute of the Russian Academy of Sciences, St. Petersburg, Russian Federation (NANOBIOMAT Program)
7. 2017, July-September – Institute of Surface Chemistry (NAS), Kiev, Ukraine (NANOBIOMAT Program).
8. 2017, September-November – IOFFE Physical-Technical Institute of the Russian Academy of Sciences, St. Petersburg, Russian Federation (NANOBIOMAT Program)

Theses

1. P. Klonos, *Hydration and molecular mobility studies in nanocomposite hydrogels*, Diploma Thesis supervised by Prof. C. Christodoulides, National Technical University of Athens (Greece 2007).
2. P. Klonos, *Molecular dynamics and phase transitions in polymers adsorbed onto nanooxide particles*, MSc Thesis supervised by Prof. P. Pissis, National Technical University of Athens (Greece 2009).
3. P. Klonos, *Interfacial interactions and molecular dynamics in organic-inorganic nanocomposite polymeric materials*, PhD Thesis (in English) supervised by Prof. P. Pissis, National Technical University of Athens (Greece 2015).

Educational and other activities

- Co-supervision of 9 MSc and 5 BSc theses of students of School of Applied Mathematical and Physical Sciences and of 2 MSc Programs (Physics and Technological Applications, Microsystems and Nanodevices) at the NTUA.
- Assistant teaching of experimental exercises to undergraduate (physics) and graduate students (advanced characterization methods of materials) of the National Technical University of Athens.
- Member of the organization committee: Demonstration Course – Characterization Methodology and Tools for New Polymer Nanostructured Materials, 13-15 May 2009, Athens, Greece. Under the auspices of NaPolyNet.

Seminars – Short courses

- *Innovation and Entrepreneurship*, In the frames of ‘Science and Technology Festival’, 21 November and 5 December, 2008, N.C.S.R. Democritos, Athens, Greece.
- *Recent Advances in Polymer Nanomaterials for Food*, Training School, COST Action: FA0904, 3 – 5 November 2011, St’s Cyril and Methodius University, Skopje, F.Y.R.O.M.
- *New materials for biomedical applications*, Workshop, in the frames of NARGEL Program, 6 April 2015, National Technical University of Athens, Athens, Greece.
- *Polymer Nanocomposites: Synthesis, Properties, Modeling, Applications*, Workshop in the frames of ARISTEIA Project, 16 – 17 June 2015, National Technical University of Athens, Athens, Greece.
- *Structural investigation and molecular dynamics of nanostructured polymeric materials*, GREEK-GERMAN workshop 2015, in the frame of the project "Hochschulpartnerschaften mit Griechenland" by Deutscher Akademischer Austausch Dienst, DAAD, 28 September – 01 October 2015, National Technical University of Athens, Athens, Greece.

Reviewer for international scientific journals

Macromolecules (ACS)	Polymer (Elsevier)
Journal of Physical Chemistry (ACS)	European Polymer Journal (Elsevier)
Langmuir (ACS)	Applied Surface Science (Elsevier)
ACS Applied Nano Materials (ACS)	Thermochimica Acta (Elsevier)
ACS Applied Polymer Materials (ACS)	Materials Chemistry and Physics (Elsevier)
ACS Omega (ACS)	Materials & Design (Elsevier)
Industrial and Engineering Chemistry Research (ACS)	Microelectronic Engineering (Elsevier)
Journal of Applied Polymer Science (Wiley)	Journal of Polymer Engineering (De Gruyter)
Advances in Polymer Technology (Wiley)	Adsorption Science and Technology
Polymer Composites (Wiley)	Nanoscale Research Letters (Springer)
Lubricants (MDPI)	Applied Nanoscience (Springer)
Polymers (MDPI)	Express Polymer Letters

Book Chapters

1. P. Klonos, A. Kyritsis, P. Pissis, *Interfacial effects in polymer nanocomposites studied by thermal and dielectric techniques*, Chapter 6 in *Interface/interphase in polymer nanocomposites*, A.N. Netravali, K.L. Mittal (Eds.), Series: *Adhesion and Adhesives: Fundamental and Applied Aspects*, WILEY - Scrivener Publishing LLC, 2016, pp 191-248. (ISBN: 9781119184911, doi: 10.1002/9781119185093.ch6)
2. Bolbukh Y, Sevostianov S, Podkoscielna B, Sternik D, Klonos P, Pissis P, Gawdzik B, Tertykh V. *Bifunctional silicas with immobilized lignin*, Chapter 26 in *Nanochemistry, Biotechnology, Nanomaterials, and Their Applications*, Fesenko O, Yatsenko L (Eds.), Springer International Publishing AG, 2018, pp 407-425. (ISBN: 978-3-319-92566-0, doi: 10.1007/978-3-319-92567-7_26)
3. Klonos P.A., Bikiaris D.N., Kyritsis A. *Molecular Mobility in Nanocomposites based on Renewable Semi-crystalline Polyesters*, in *Molecular dynamics of composites*, Schönhals A., Szymoniak P (Eds). Springer Nature, in press.

Publications in peer reviewed scientific journals

1. A. Stathopoulos, P. Klonos, A. Kyritsis, P. Pissis, C. Christodoulides, J.C.R. Hernandez, M.M. Pradas, J.L.G. Ribelles. Water sorption and polymer dynamics in hybrid Poly(2-hydroxyethyl-co-ethyl acrylate)/silica hydrogels. **European Polymer Journal** 46 (2010) 101-111. <http://dx.doi.org/10.1016/j.eurpolymj.2009.10.014>.
2. P. Klonos, P. Pissis, V.M. Gun'ko, A. Kyritsis, N.V. Guzenko, E.M. Pakhlov, V.I. Zarko, W. Janusz, J. Skubiszewska-Zieba, R. Lebeda. Interaction of poly(ethylene glycol) with fumed silica and alumina/silica/titania. **Colloids and Surfaces A** 360 (2010) 220-231. <http://dx.doi.org/10.1016/j.colsurfa.2010.03.00>.
3. 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 (2010) 5490-5499. <http://dx.doi.org/10.1016/j.polymer.2010.09.054>.
4. 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** 357 (2011) 610-614. <http://dx.doi.org/10.1016/j.jnoncrysol.2010.06.058>.
5. Yu. Bolbukh, V. Tertykh, P. Klonos, P. Pissis. DSC study of polyhydroxyethylmethacrylate filled with modified silicas. **Journal of Thermal Analysis and Calorimetry** 108 (2012) 1111-1119. <http://dx.doi.org/10.1007/s10973-011-2030-7>.
6. P. Klonos, C. Pandis, S. Kripotou, A. Kyritsis, P. Pissis. Interfacial interactions in polymer nanocomposites studied by dielectric and thermal techniques. **IEEE Transactions on Dielectrics and Electrical Insulation** 19 (2012) 1283-1290. <http://dx.doi.org/10.1109/TDEI.2012.6260002>.
7. P. Klonos, S. Kaprinis, V.I. Zarko, V. Peoglos, E.M. Pakhlov, P. Pissis, V.M. Gun'ko. Thermal and dielectric studies of PEG/C/AST nanocomposites. **Journal of Applied Polymer Science** 128 (2013) 1601-1615. <http://dx.doi.org/10.1002/app.3795>.
8. C. Stamatopoulou, P. Klonos, S. Koutsoumpis, V. Gun'ko, P. Pissis, L. Karabanova. Hydrophilic nanocomposites based on polyurethane/poly(2-hydroxyethyl methacrylate) semi-IPNs and modified/unmodified nanosilica for biomedical application. **Journal of Polymer Science B** 52 (2014) 397-408. <http://dx.doi.org/10.1002/polb.2342>.
9. M.V. Galaburda, P. Klonos, V.M. Gun'ko, V.M. Bogatyrov, M.V. Borysenko, P. Pissis. Dielectric properties and thermal destruction of poly(dimethylsiloxane)/Fe₂O₃/SiO₂ nanocomposites. **Applied Surface Science** 305 (2014) 67-76. <http://dx.doi.org/10.1016/j.apsusc.2014.02.162>.
10. I. Sulym, P. Klonos, M. Borysenko, P. Pissis, V.M. Gun'ko. Dielectric and Thermal studies of Segmental Dynamics in Silica/PDMS and Silica/Titania/PDMS nanocomposites. **Journal of Applied Polymer Science** 131 (2014) 41154. <http://dx.doi.org/10.1002/app.41154>.
11. G.Z. Papageorgiou, Z. Terzopoulou, D. Bikiaris, K.S. Triantafyllidis, E. Diamanti, D. Gournis, P. Klonos, E. Giannoulidis, P. Pissis. Evaluation of the formed interface in biodegradable poly(L-lactic acid)/graphene oxide nanocomposites and the effect of nanofillers on mechanical and thermal properties. **Thermochimica Acta** 597 (2014) 48-57. <http://dx.doi.org/10.1016/j.tca.2014.10.007>.
12. P. Klonos, I.Ya. Sulym, M.V. Borysenko, V.M. Gun'ko, S. Kripotou, A. Kyritsis, P. Pissis. Interfacial interactions and complex segmental dynamics in systems based on silica-polydimethylsiloxane core-shell nanoparticles: Dielectric and Thermal study. **Polymer** 58 (2015) 9-21. <http://dx.doi.org/10.1016/j.polymer.2014.12.03>.

13. P. Klonos, I.Ya. Sulym, K. Kyriakos, I. Vangelidis, S. Zidropoulos, D. Sternik, M.V. Borysenko, A. Kyritsis, A. Derylo-Marczewska, V.M. Gun'ko, P. Pissis. Interfacial phenomena in core-shell nanocomposites of PDMS adsorbed onto low specific surface area fumed silica nanooxides: Effects of surface modification. **Polymer** 68 (2015) 158-67. <http://dx.doi.org/10.1016/j.polymer.2015.05.01>.
14. P. Klonos, A. Kyritsis, P. Pissis. Effects of surface modification and thermal annealing on the interfacial dynamics in core-shell nanocomposites based on silica and adsorbed PDMS. **European Polymer Journal** 70 (2015) 342-59. <http://dx.doi.org/10.1016/j.eurpolymj.2015.07.038>.
15. P. Klonos, S. Kriptou, A. Kyritsis, G.Z. Papageorgiou, D. Bikiaris, D. Gournis, P. Pissis. Glass transition and segmental dynamics in poly(L-lactic acid) / graphene oxide nanocomposites. **Thermochimica Acta** 617 (2015) 44-53. <http://dx.doi.org/10.1016/j.tca.2015.08.020>.
16. P. Klonos, A. Kyritsis, P. Pissis. Interfacial dynamics of polydimethylsiloxane adsorbed on fumed metal oxide particles of a wide range of specific surface area. **Polymer** 77 (2015) 10-13. <http://dx.doi.org/10.1016/j.polymer.2015.09.021>.
17. P. Klonos, V. Chatzidogiannaki, K. Roumpos, E. Spyratou, P. Georgiopoulos, E. Kontou, P. Pissis, Y. Gomza, S. Nesin, O. Bondaruk, L. Karabanova. Structure-properties investigations in hydrophilic nanocomposites based on polyurethane/poly(2-hydroxyethyl methacrylate) semi-interpenetrating polymer networks and nanofiller densil for biomedical application. **Journal of Applied Polymer Science** 133 (2016) 43122. <http://dx.doi.org/10.1002/app.43122>.
18. P. Klonos, G. Dapei, I.Ya. Sulym, S. Zidropoulos, D. Sternik, A. Derylo-Marczewska, M.V. Borysenko, V.M. Gun'ko, A. Kyritsis, P. Pissis. Morphology and molecular dynamics investigation of PDMS adsorbed on titania nanoparticles: effects of polymer molecular weight. **European Polymer Journal** 74 (2016) 64-80. <http://dx.doi.org/10.1016/j.eurpolymj.2015.11.010>.
19. P. Klonos, A. Kyritsis, P. Pissis. Interfacial and confined dynamics of PDMS adsorbed at the interfaces and in the pores of silica-gel: effects of surface modification and thermal annealing. **Polymer** 84 (2016) 38-51. <http://dx.doi.org/10.1016/j.polymer.2015.12.045>.
20. Y. Bolbukh, P. Klonos, K. Roumpos, V. Chatzidogiannaki, V. Tertykh, P. Pissis. Glass transition and hydration properties of polyhydroxyethylmethacrylate filled with modified silica nanoparticles. **Journal of Thermal Analysis and Calorimetry** 125 (2016) 1387-1398. <http://dx.doi.org/10.1007/s10973-016-5677-2>.
21. P. Klonos, Z. Terzopoulou, S. Koutsoumpis, S. Zidropoulos, S. Kriptou, G.Z. Papageorgiou, D. Bikiaris, A. Kyritsis, P. Pissis. Rigid amorphous fraction and segmental dynamics in nanocomposites based on poly(L-lactic acid) and nano-inclusions of 1-3D geometry studied by thermal and dielectric techniques. **European Polymer Journal** 82 (2016) 16-34. <http://dx.doi.org/10.1016/j.eurpolymj.2016.07.002>.
22. P. Klonos, K. Kulyk, M.V. Borysenko, V.M. Gun'ko, A. Kyritsis, P. Pissis. Effects of molecular weight below the entanglement threshold on interfacial nanoparticles/polymer dynamics. **Macromolecules** 49 (2016) 9457-9473. <http://dx.doi.org/10.1021/acs.macromol.6b01931>.
23. P. Klonos, A. Kyritsis, L. Bokobza, V.M. Gun'ko, P. Pissis. Interfacial effects in PDMS/titania nanocomposites studied by thermal and dielectric techniques. **Colloids and Surfaces A** 519 (2017) 212-222. <http://dx.doi.org/10.1016/j.colsurfa.2016.04.020>.
24. P. Klonos, P. Pissis. Effects of interfacial interactions and of crystallization on rigid amorphous fraction and molecular dynamics in polylactide/silica nanocomposites: a methodological approach. **Polymer** 112 (2017) 228-243. <http://dx.doi.org/10.1016/j.polymer.2017.02.003>.
25. M. Souli, P. Klonos, A.F. Fragopoulou, I.V. Mavragani, I.S. Pateras, N. Kostomitsopoulos, L.H. Margaritis, P. Zoumpoulis, L. Kaklamanis, D. Kletsas, V.G. Gorgoulis, A. Kyritsis, P. Pissis, A.G. Georgakilas. Applying broadband dielectric spectroscopy (BDS) for the biophysical characterization of mammalian tissues under a variety of cellular stresses. **International Journal of Molecular Sciences** 18 (2017) 838. <http://dx.doi.org/10.3390/ijms18040838>.
26. V. Bershtein, P. Pissis, T. Sukhanova, L. Karabanova, P. Yakushev, O. Bondaruk, P. Klonos, E. Spyratou, M. Vylegzhanina, E. Voronin. Biocompatible nanocomposites based on semi-interpenetrating polymer networks and nanosilica modified by bioactive amino acid tryptophan: morphology, dynamics and properties. **European Polymer Journal** 92 (2017) 150-164. <http://dx.doi.org/10.1016/j.eurpolymj.2017.04.038>.
27. P. Klonos, P. Pissis, A. Kyritsis. Effects of hydration/dehydration on interfacial polymer fraction and dynamics in nanocomposites based on metal-oxides and physically adsorbed polymer. **Journal of Physical Chemistry C** 121 (2017) 19428-19441. <http://dx.doi.org/10.1021/acs.jpcc.7b05267>.

28. P. Klonos, I.Y. Sulym, D. Sternik, P. Konstantinou, O.V. Goncharuk, A. Deryło–Marczewska, V.M. Gun'ko, A. Kyritsis, P. Pissis. Morphology, crystallization and rigid amorphous fraction in PDMS adsorbed onto carbon nanotubes and graphite. **Polymer** 139 (2018) 130-144. <http://dx.doi.org/10.1016/j.polymer.2018.02.020>.
29. S. Koutsoumpis, J. Ozimek, K.N. Raftopoulos, E. Hebda, P. Klonos, C.M. Papadakis, K. Pielichowski, P. Pissis. Polyurethanes with POSS pendent on flexible hard segments: morphology and glass transition. **Polymer** 147 (2018) 225-236. <http://dx.doi.org/10.1016/j.polymer.2018.06.012>.
30. P. Klonos, Y. Bolbukh, C.S. Koutsiaira, K. Zafeiris, O.D. Kalogeri, D. Sternik, A. Deryło–Marczewska, V. Tertykh, P. Pissis. Morphology and molecular dynamics investigation of low molecular weight PDMS adsorbed onto Stöber, fumed, and sol-gel silica nanoparticles. **Polymer** 148 (2018) 1-13. <http://dx.doi.org/10.1016/j.polymer.2018.06.019>.
31. S. Koutsoumpis, A. Poulakis, P. Klonos, S. Kriptomou, V. Tsanaktis, D. Bikiaris, A. Kyritsis, P. Pissis. Structure, thermal transitions and polymer dynamics in nanocomposites based on poly(ϵ -caprolactone) and nanoinclusions of 1-3D geometry. **Thermochemica Acta** 666 (2018) 229-240. <https://doi.org/10.1016/j.tca.2018.05.012>.
32. S. Koutsoumpis, P. Klonos, K.N. Raftopoulos, C.M. Papadakis, D. Bikiaris, P. Pissis. Morphology, thermal properties and molecular dynamics of syndiotactic polystyrene (s-PS) nanocomposites with aligned graphene oxide and graphene nanosheets. **Polymer** 153 (2018) 548-557. <https://doi.org/10.1016/j.polymer.2018.08.052>.
33. M. Nerantzaki, L. Prokopiou, D.N. Bikiaris, D. Patsiaoura, K. Chrissafis, P. Klonos, A. Kyritsis, P. Pissis. *In situ* prepared poly(DL-lactic acid)/silica nanocomposites: Study of molecular composition, thermal stability, glass transition and molecular dynamics. **Thermochemica Acta** 669 (2018) 16-29. <https://doi.org/10.1016/j.tca.2018.08.025>.
34. P.A. Klonos. Crystallization, glass transition, and molecular dynamics in PDMS of low molecular weights: A calorimetric and dielectric study. **Polymer** 159 (2018) 169-180. <https://doi.org/10.1016/j.polymer.2018.11.028>.
35. P.A. Klonos. Dynamics of molecules physically adsorbed onto metal oxide nanoparticles: Similarities between water and a flexible polymer. **Journal of Physical Chemistry C** 122 (2018) 28825-28829. <http://dx.doi.org/10.1021/acs.jpcc.8b10043>.
36. P.A. Klonos, S.N. Tegopoulos, C.S. Koutsiaira, E. Kontou, P. Pissis, A. Kyritsis. Effects of CNTs on thermal transitions, thermal diffusivity and electrical conductivity in nanocomposites: comparison between an amorphous and a semicrystalline polymer matrix. **Soft Matter** 15 (2019) 1813-1824. <https://doi.org/10.1039/C8SM02478B>.
37. Z. Terzopoulou, P.A. Klonos, A. Kyritsis, A. Tziolas, A. Avgeropoulos, G.Z. Papageorgiou, D.N. Bikiaris. Interfacial interactions, crystallization and molecular mobility in nanocomposites of poly(lactic acid) filled with new hybrid inclusions based on graphene oxide and silica nanoparticles. **Polymer** 166 (2019) 1-12. <https://doi.org/10.1016/j.polymer.2019.01.041>.
38. P.A. Klonos, O.V. Goncharuk, E.M. Pakhlov, D. Sternik, A. Deryło–Marczewska, A. Kyritsis, V.M. Gun'ko, P. Pissis. Morphology, molecular dynamics and interfacial phenomena in systems based on silica modified by grafting PDMS chains and physically adsorbed PDMS. **Macromolecules** 52 (2019) 2863-2877. <https://doi.org/10.1021/acs.macromol.9b00155>.
39. A. Karatza, P. Klonos, S. Pispas, A. Kyritsis. Glass transition and molecular dynamics in PHPMA-b-POEGMA block copolymers. **Polymer** 181 (2019) 121794. <https://doi.org/10.1016/j.polymer.2019.121794>.
40. P. A. Klonos, L. Papadopoulos, D. Tzetzis, A. Kyritsis, G. Z. Papageorgiou, D. N. Bikiaris. Thermal, nanoindentation and dielectric study of nanocomposites based on poly(propylene furanoate) and various inclusions. **Materials Today Communications** 20 (2019) 100585. <https://doi.org/10.1016/j.mtcomm.2019.100585>.
41. K.N. Raftopoulos, I. Łukaszewska, P.A. Klonos, E. Hebda, A. Bukowczan, A. Kyritsis, K. Pielichowski. Molecular and charge mobility of a poloxamer in the bulk and as soft component in polyurethanes. **Polymer** 182 (2019) 121821. <https://doi.org/10.1016/j.polymer.2019.121821>.
42. P.A. Klonos, L.V. Nosach, E.F. Voronin, E.M. Pakhlov, A. Kyritsis, P. Pissis. Glass transition and molecular dynamics in core-shell type nanocomposites based on fumed silica and polysiloxanes: comparison between poly(dimethylsiloxane) and poly(ethylhydrosiloxane). **Journal of Physical Chemistry C** 123 (2019) 28427–28436. <https://doi.org/10.1021/acs.jpcc.9b07247>.
43. P.A. Klonos, N. Patelis, E. Glynos, G. Sakellariou, A. Kyritsis. Molecular dynamics in polystyrene single chain nanoparticles. **Macromolecules** 52 (2019) 9334–9340. <http://dx.doi.org/10.1021/acs.macromol.9b02070>
44. P.A. Klonos, M. Kluge, T. Robert, A. Kyritsis, D.N. Bikiaris. Molecular dynamics, crystallization and hydration study of poly(propylene succinate) based poly(ester amide)s. **Polymer** 186 (2020) 122056. <https://doi.org/10.1016/j.polymer.2019.122056>

45. L. Papadopoulos, P. A. Klonos, D. Tzetzis, G. Z. Papageorgiou, A. Kyritsis, D. N. Bikiaris. Effects of graphene nanoplatelets on crystallization, mechanical performance and molecular dynamics of the renewable poly(propylene furanoate). **Polymer** 189 (2020) 122172. <https://doi.org/10.1016/j.polymer.2020.122172>
46. P.A. Klonos, V. Peoglos, D.N. Bikiaris, A. Kyritsis. Rigid amorphous fraction and thermal diffusivity in nanocomposites based on poly(L-lactic acid) filled with carbon nanotubes and graphene oxide. **Journal of Physical Chemistry C** 124 (2020) 5469–5479. <https://doi.org/10.1021/acs.jpcc.9b11843>
47. L. Papadopoulos, Z. Terzopoulou, A. Vlachopoulos, P.A. Klonos, A. Kyritsis, D. Tzetzis, G.Z. Papageorgiou, D. Bikiaris. Synthesis and characterization of novel polymer/clay nanocomposites based on poly(butylene 2,5-furan dicarboxylate). **Applied Clay Science** 190 (2020) 105588. <https://doi.org/10.1016/j.clay.2020.105588>
48. P.A. Klonos, L. Papadopoulos, G.Z. Papageorgiou, A. Kyritsis, P. Pissis, D.N. Bikiaris. Interfacial interactions, crystallization and molecular dynamics of renewable poly(propylene furanoate) *in situ* filled with initial and surface functionalized carbon nanotubes and graphene oxide. **Journal of Physical Chemistry C** 124 (2020) 10220–10234. <https://doi.org/10.1021/acs.jpcc.0c01313>
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4. P. Pissis, P. Klonos, A. Kyritsis, V.M. Gun'ko. *Interfacial effects in core-shell polymer nanocomposites*. 20th International Conference on Composite Material, ICCM, Copenhagen, Denmark, 19-24 July, 2015.

Participation in scientific conferences

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2. Ch. Pandis, A. Stathopoulos, P. Klonos, C. Christodoulides, A. Spanoudaki, A. Kyritsis, P. Pissis, M.M. Pradas, J.C. Rodriguez Hernandez, J.L. Gomez Ribelles, *Hydration properties of nanostructured hydrogels based on poly(2-hydroxyethyl acrylate) and poly(2-hydroxyethyl acrylate-co-ethyl acrylate)*, 7th HELLENIC POLYMER CONFERENCE, September 28th – October 1st, **2008**, Ioannina, Greece.
3. Polycarpos Pissis, Anna Panagopoulou, Panagiotis Klonos, Daniel Fragiadakis and Liliane Bokobza, *Glass transition and polymer dynamics in rubber/silica and rubber/titania nanocomposites*, 6th International Discussion Meeting on Relaxations in Complex Systems (IDMRCS), 30 August – 5 September **2009**, Rome, Italy.
4. 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.
5. P. Klonos, P. Pissis, A. Kyritsis, N.V. Guzenko, V.M. Gun'ko, *Studies of the interfacial and relaxation phenomena in poly(ethylene glycol)-nanooxide composite systems*, International Symposium 'Modern Problems of Surface Chemistry and Physics', 18 – 21 May, **2010**, Kiev, Ukraine.
6. P. Klonos, A. Kyritsis, P. Pissis, N.V. Guzenko, V.M. Gun'ko, *Dielectric and thermal studies of the interfacial and relaxation phenomena in polymer-oxide nanocomposites*, XII Polish – Ukrainian Symposium 'Theoretical and Experimental Studies of Interfacial Phenomena and their Technological Applications' simultaneously with 2nd COMPOSITUM Conference 'Hybrid Nanocomposites and their Applications', 24 – 28 August, **2010**, Kielce - Ameliowka, Poland. (2nd Poster Prize)
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18. P. Klonos, K. Kyriakos, I. Vangelidis, I. Sulim, M.V. Borysenko, A. Kyritsis, B.B. Palyanytsya, V.M. Gun’ko, P. Pissis, *Polymer dynamics and interfacial effects in polymer nanocomposites based on core-shell nanoparticles*, XIII Ukrainian–Polish Symposium ‘Theoretical and Experimental Studies of Interfacial Phenomena and their Technological Applications’ simultaneously with 4nd COMPOSITUM Conference ‘Hybrid Nanocomposites and their Applications’, 11-14 September, **2012**, Kiev, Ukraine.
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