

Dr. GEORGIOS Chr. PSARRAS

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Smart Materials & Nanodielectrics Laboratory,
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URL: smatlab.upatras.gr

Resume:

97 referred journal papers, 108 papers in international conferences, 110 papers in national conferences, 6 chapters in books, 2 textbooks, participation in 17 funded research projects, over 2500 citations (excluding self-citations), *h*-index 29 (source web of science), supervision of 7 PhD theses, 22 MSc theses, 86 BSc theses, over 20 years of teaching experience in the field of materials science and physics.

Education and Research Training:

- Ph.D. in Materials Physics Engineering, Department of Materials Science & Engineering, School of Chemical Engineering, National Technical University of Athens, Greece, 1995.
- University Degree in Physics, Department of Physics, University of Ioannina, Greece, 1986.
- Greek Open University, Intensive Course in Distance Learning, 1999.
- Informatics and Systems' Analysis, Center of Economic Research, Athens University of Economics and Business, Greece, 1989.
- Polymers and Composite Materials Characterization, COMETT, National Technical University of Athens, Greece, 1993.
- Polymeric and Composite Materials, COMETT, National Technical University of Athens, Greece, 1993.
- Smart Materials, Erasmus, National Technical University of Athens, Greece, 1994.
- New Technological Materials, Continuous Training, National Technical University of Athens, Greece, 1994.

Academic/Employment History:

- November 2019 – today: Professor, Department of Materials Science, University of Patras, Greece.
- April 2016: Visiting Professor, Department of Polymer Engineering, Faculty of Mechanical Engineering, Budapest University of Technology and Economics, Hungary.
- November 2015 – November 2019: Associate Professor, Department of Materials Science, University of Patras, Greece.
- July 2014: Visiting Professor, Department of Polymer Science and Engineering, University of Science and Technology of Beijing, China.
- January 2013 – November 2015: Tenured Assistant Professor, Department of Materials Science, University of Patras, Greece.

- August 2008 – January 2013: Assistant Professor, Department of Materials Science, University of Patras, Greece.
- December 2003 – August 2008: Lecturer, Department of Materials Science, University of Patras, Greece.
- September 2001 – December 2003: Assistant Professor (temporary employment under 407/80 contract), Department of Materials Science, University of Patras, Greece.
- October 2000 – August 2001: Lecturer (temporary employment under 407/80 contract), Department of Materials Science, University of Patras, Greece.
- 1998-2001: Researcher (full time), Institute of Chemical Engineering and High Temperature Chemical Processes, Foundation for Research and Technology, Patras, Greece
- 1994-1998: Post-Doctoral Research Fellow, Department of Materials Science & Engineering, School of Chemical Engineering, National Technical University of Athens, Greece.

Research Interests:

- Smart and functional materials, hybrid materials' systems incorporating: Shape Memory Alloys, piezo/ferroelectric elements and electrorheological fluids. Development, multiple characterization, and functionality.
- Nanocomposites and nanodielectrics, energy storage and harvesting.
- Dielectric spectroscopy, electrical properties of polymers and polymer composite materials: dielectric behaviour, AC and DC conductivity.
- Modeling the electrical response of polymer matrix composite materials.
- Thermal and Mechanical properties of polymers and composite materials.
- Magnetic properties of nanocomposites.
- Micromechanics of composite materials using the Laser Raman Spectroscopy.
- Anticorrosive behaviour of composite polymeric systems using impedance spectroscopy.
- Relaxation phenomena and electrical properties in biopolymers and biocompatible nanocomposites.

Fellowships, Awards and distinctions:

- 1). 1991-1994: Greek State Scholarship for doctoral studies, School of Chemical Engineering, National Technical University of Athens.
- 2). 1998-1999: Greek Open University Scholarship for "Open and Distance Learning Studies".
- 3). 1999-2000: Greek State Scholarships Foundation, for post-doctoral research studies.
- 4). The paper «Graphite Nanoplatelets and/or Barium Titanate / Polymer Nanocomposites: Fabrication, Thermomechanical Properties, Dielectric Response and Energy Storage. A. C. Patsidis, K. Kalaitzidou, D. L. Anastassopoulos, A. A. Vradis, G. C. Psarras, Journal of the Chinese Advanced Materials Society, vol. 2(3), (2014), p. 207-221» is included in the «Physics Best of 2014» of the scientific publishing house Taylor & Francis.
- 5). The work «The impact of grain size/interface at Boron Carbide/epoxy composites: dielectric properties and molecular dynamics. E. C. Senis, G.C. Psarras, was awarded the best oral presentation in XXXI Panhellenic Conference on Solid State Physics & Materials Science, Thessaloniki, 20-23 September 2015.

- 6). Outstanding Reviewer for the "Journal of Physics D: Applied Physics", Institute of Physics (IOP), <https://publishingsupport.iopscience.iop.org/questions/journal-physics-d-applied-physics-2017-reviewer-awards/>.
- 7). Member of the "Advisory Panel of Journal of Physics D: Applied Physics (JPhysD)", Institute of Physics (IOP), <http://iopscience.iop.org/journal/0022-3727/page/Advisory%20panel>.
- 8). G. C. Psarras is included in the top 2% worldwide in his field: "Updated science-wide author databases of standardized citation indicators", published: 08-10-2020 | Version 2 | DOI: 10.17632/btchxktyw.2.

Participation in Funded Research Projects:

Participation in 17 international and national research projects:

- 1). "Integrating Multi-Functionality and Smart Performance in Hybrid Polymer Nanodielectrics".
Hellenic Foundation for Research & Innovation, 1st Call for HFRI's research projects to support Faculty members and Researchers, Scientific Responsible: G. C. Psarras.
Duration: 2020-2023.
- 2). "Development, characterization and functionality of nanocomposite systems consisted of an epoxy resin reinforced with carbides and forms of carbon".
Greek State Scholarships Foundation (IKY), Programme for Doctoral Research, Scientific Responsible: G. C. Psarras, PhD student: Th. Velmachos. Duration 2018-2021.
- 3). "Development, characterization and functional behaviour of multi-responsive composite materials of elastomeric matrix/ceramic inclusions/forms of carbon".
Greek State Scholarships Foundation, Programme for Post-doctoral Research, Scientific Responsible: G. C. Psarras, Post-doctoral researcher: A. C. Patsidis. Duration: 2017-2019.
- 4). "Polymer matrix/magnetic inclusions composite nanodielectrics: Development, characterization and functionality".
Hellenic Foundation for Research & Innovation, 1st call for doctorate students' scholarships, Scientific Responsible: G. C. Psarras, PhD student: A. Sanida. Duration: 2017-2019.
- 5). "Polymer matrix/carbon allotropic forms multifunctional nanodielectrics: Development, characterization, and energy storage".
Hellenic Foundation for Research & Innovation, 1st call for doctorate students' scholarships, Scientific Responsible: G. C. Psarras, PhD student: S. Stavropoulos. Duration: 2017-2019.
- 6). "Research and development of novel multifunctional polymer nanocomposites".
General Secretariat for Research and Technology, "Thalis" research framework. Scientific Responsible: G. C. Psarras, U. of Patras, General coordinator: A. Kanapitsas, TEI of Lamia. Duration: 2012-2016.

Partners: 1). Dep. of Electronics, TEI of Lamia, 2) Dep. of Materials Science, U. of Patras, 3) Physics Dep. of U. of Patras, 4) Dep. of Electronics, TEI of Athens, 5). National Center for Scientific Research "Demokritos", Athens Center.

- 7). "Electrical and Thermomechanical Characterization of Smart Systems consisting of Polymer Matrix and Piezo/Ferro-electric Inclusions".
General Secretariat for Research and Technology, bilateral agreement between Greece and Tunisia. Scientific Responsible: G. C. Psarras. Duration: 2007-2008.
Partners: 1). Dep. of Materials Science, U. of Patras, 2). Physics Department, Faculty of Science, University of Sfax, Tunisia.
- 8). "Thermomechanical and Dielectric Response of Rubber Latex/Inorganic Nanofiller Systems"
Bilateral agreement between Greece and Germany, IKYDAAD 2005. Scientific Responsible: G. C. Psarras. Duration: 2006-2008.
Partners: 1). Dep. of Materials Science, U. of Patras, 2). Institute for Composite Materials, Technical University of Kaiserslautern, Germany.
- 9). "Fabrication technology, characterization and study of properties of bulk amorphous and nanophase metallic alloys".
General Secretariat for Research and Technology, bilateral agreement between Greece and Hungary. Scientific Responsible: S. Baskoutas, U. of Patras. Duration: 2003 – 2006.
Partners: 1). Dep. of Materials Science, U. of Patras, 2). Research Institute for Solid State Physics and Optics, Budapest.
- 10). "Development and study of smart composite systems consisted of polymer matrix with embedded shape memory wires".
Secretariat for Research and Technology (PENED). Scientific Responsible: C. Galiotis, ICE-HT/FORT. Duration: 2002-2005.
- 11). "Development of a MW scale wind turbine for high wind complex terrain sites".
Growth (Energie) (Nº: NNE5-2000-00327).
Scientific Responsible: C. Galiotis ICE-HT/FORTH. General coordinator: P. Vionis, Centre for Renewable Energy Sources and Saving (CRES). Duration: 2001-2004.
Partners: 1). Centre for Renewable Energy Sources and Saving, Greece, 2). MADE Tecnologias Renovables, Spain, 3). NESCO Entrecanales Cubiertas S.A., Spain, 4). Gevbiologiki SA, Greece, 5). Centro de Investigaciones Energeticas Edioambientales y Technologicas, Spain, 6). Joint Research Centre, EC-ISIS, Italy, 7). EIXHMYΘ/ITE, Ελλάς, 8) Dep. of Mechanical and Aeronautical Engineering, U. of Patras, Greece, 9). School of Mechanical Engineering, NTUA, Greece 10). Design Unit, Gear Technology Centre, University of Newcastle, U.K.
- 12). "Industrial applications of composite materials"
General Secretariat for Research and Technology (EPET II). Scientific Responsible: J. Yiakoumis, IGVP R & D Ltd. Duration: Feb. 2000 – July 2001.

Partners: 1). Dep. of Chemistry, U. of Athens, 2) IESL/FORTH, 3). Dep. of Chemical Engineering, AUTH, 4). School of Chemical Engineering, NTUA, 5). Dep. of Chemical Engineering, U. of Patras, 6). ICE-HT/FORTH, 7). Theoretical and Physical Chemistry Institute (TPCI), National Hellenic Research Foundation, 8) IGVP R & D Ltd, 9). Adhesives Research Institute, 10). Intercem Hellas, 11). Lavipharm, 12). S. K. Egis, 13.) "Peverplast" G. Banoutsos, 14). Bureau Veritas.

- 13). "Adaptive Composites with Embedded Shape Memory Alloy Wires". Brite-Euram (N^o: BRPR-CT97-468). Scientific Responsible: C. Galiotis ICE-HT/FORTH. General coordinator: Rudy Stalmans, Dep. MTM, KULeuven. Duration: 1998 – 2001.
Partners: 1). KULeuven, Belgium, 2). Ecole Polytechnique Federale de Lausanne, Swiss, 3). Dalmer-Chrysler, Germany, 4). European Aeronautics Defense and Space Company (EADS), Germany, 5). British Aerospace, Sowerby Research Center, U.K., 6) ICE-HT/FORTH, Greece.
- 14). "Dielectric behaviour and conductivity (dc, ac) of metal particles/polymer matrix composite materials". 2nd Programme for Post-Doctoral Research in Greece, Greek State Scholarships Foundation. G. C. Psarras, duration: 1999-2000.
- 15). "Development of new materials for surface and structural conservation of monuments based on the fabrication materials and the damage mechanisms". General Secretariat for Research and Technology (EPET II). Scientific Responsible: P. Vassiliou, National Technical University of Athens. Duration: 1995-1997.
- 16). "Study of the anti-corrosive properties of polymer coatings". General Secretariat for Research and Technology, bilateral agreement between Greece and Hungary, G-MATERIALS JRP-2. Scientific Responsible: N. Kouloumbi, National Technical University of Athens. Duration: 1994-1996.
Partners: National Technical University of Athens and University of Veszprem.
- 17). "Polymer matrix/metal particles composite materials: preparation and study of their electrical and magnetic properties targeting to performance optimization". General Secretariat for Research and Technology (PENED). Scientific Responsible: G. M. Tsangaris, National Technical University of Athens. Duration: 1994-1996.

Publications/Citations:

97 Refereed papers, 29 full papers in refereed proceedings of international conferences, 79 extended abstracts in proceedings of international conferences, 110 papers in proceedings of national conferences, 2 textbooks, 6 chapters in books, translation of 2 textbooks in Greek.

Citations

- Over 2500 citations (excluding self-citations, source: Science Citation Index, google.com, scholar.google.com, books.google.com, scopus.com,

publish or perish, January 2021), *h*-index 29 (web of science- Science Citation Index).

Conference Participation/Attendance:

25 International conferences, 38 national conferences, 14 invited lectures.

Editorial Activity/Invited Lectures

Editorial membership

- Subject Editor (Polymer Composite Nanodielectrics) and member of the Editorial Board of the scientific journal "IET Nanodielectrics", The Institution of Engineering and Technology, <http://digital-library.theiet.org/journals/iet-nde/editorial-board>.
- Member of the Editorial Board of the scientific journal "Express Polymer Letters", BME-PT, www.expresspolymlett.com.
- Member of the Editorial Board of the scientific journal "Journal of Advanced Physics", American Scientific Publishers, <http://www.aspbs.com/jap.htm>.
- Member of the Editorial Board of the scientific journal "Materials", (ISSN 1996-1944; CODEN: MATEG9), <https://www.mdpi.com/journal/materials/editors>.

Active reviewer in the journals:

1. Advanced Composites Letters
2. Advanced Functional Materials
3. Advanced Materials
4. Applied Materials & Interfaces
5. Applied Physics A: Materials Science & Processing
6. Applied Physics Letters
7. E-Polymer
8. European Polymer Journal
9. Express Polymer Letters
10. Carbon
11. Cellulose
12. Ceramic International
13. Chemical Physics Letters
14. Communication Materials
15. Composites Part A: Applied Science and Manufacturing
16. Composites Part B: Engineering
17. Composites Science and Technology
18. Computer and Chemical Engineering
19. Dalton Transactions
20. Journal of Advanced Physics
21. Journal of Applied Physics
22. Journal of Composite Materials
23. Journal of Experimental Nanoscience
24. Journal of Materials Chemistry
25. Journal of Materials Research
26. Journal of Materials Science

27. Journal of Materials Science: Materials in Electronics
28. Journal of Materiomics
29. Journal of Molecular Liquids
30. Journal of Molecular Structure
31. Journal of Nanoresearch
32. Journal of Nanostructure in Chemistry
33. Journal of Nanostructured Polymers and Nanocomposites
34. Journal of Physical Chemistry
35. Journal of Physics and Chemistry of Solids
36. Journal of Physics: Condensed Matter
37. Journal of Physics D: Applied Physics
38. Journal of Polymer Research
39. Journal of Polymer Science B: Polymer Physics
40. Journal of Reinforced Plastics and Composites
41. Journal of the American Ceramic Society
42. Journal of Theoretical and Allied Physics
43. Journal of Thermal Analysis and Calorimetry
44. Journal of Thermoplastic Composite Materials
45. IEEE Transactions on Dielectrics and Electrical Insulation
46. IEEE Transactions on Nanotechnology
47. Industrial & Engineering Chemistry Research
48. International Journal of Applied Ceramic Technology
49. International Journal of Modern Physics B
50. High Voltage
51. KMUTNB International Journal of Applied Science and Technology
52. Macromolecular Rapid Communications
53. Macromolecules
54. Materials
55. Materials Design
56. Materials Chemistry and Physics
57. Materials Letters
58. Materials Science and Engineering B: Solid State Materials for Advanced Technology
59. Materials Science and Technology
60. Materiaux et Techniques
61. Microsystem Technologies
62. Modern Physics Letters B
63. Nanodielectrics
64. Nanoscale
65. Nanotechnology
66. New Journal of Physics
67. Physica Scripta
68. Plastics, Rubbers and Composites
69. Polymer
70. Polymer Composites
71. Polymer Bulletin
72. Polymer Engineering & Science
73. Polymer Testing
74. Semiconductor Science and Technology
75. Soft Matter
76. Spectroscopy Letters
77. The Journal of Physical Chemistry

Invited Lectures

- (a) "Materials Matter! Materials Science and its improvements on the human potential",
(b) "Smart Materials",
Young European Engineers, Board of European Students of Technology, Local Group of Patras, May 2006 (scientific responsible and speaker of the seminar on materials).
- "Electrical Properties of Polymer Matrix/Conductive Inclusions Composites", summer graduated school on "Composites Materials", Kaiserslautern University of Technology, Kaiserslautern, Germany, 20 July 2006.
- "Probing the Reverse Martensitic Transformation in Constrained Shape Memory Alloys via the Variation of Electrical Resistance" Key-Note Lecture in the session of "Smart Materials", International Conference on Structural Analysis of Advanced Materials, ICSAM-2007, September 2-6, 2007, Patras, Greece.
- "Dielectric Response of Polymer Matrix Micro- and Nanocomposites", summer graduated school on "Composites Materials", Kaiserslautern University of Technology, Kaiserslautern, Germany, 3 July 2008.
- "Dielectric Materials and Broadband Dielectric Spectroscopy: Introductory Remarks", Department of Polymer Science and Engineering, University of Science and Technology of Beijing, China, July 2014.
- "Dielectric Response of Polymers and Polymer Matrix Composites (Structure Properties Relationship)", Department of Polymer Science and Engineering, University of Science and Technology of Beijing, China, July 2014.
- "Conductivity and Electrical Percolation in Polymers and Polymer Matrix Micro/Nano-Composites", Department of Polymer Science and Engineering, University of Science and Technology of Beijing, China, July 2014.
- "Current Applications and Future Trends of Polymers and Polymer Matrix Micro/Nano-Composites", Department of Polymer Science and Engineering, University of Science and Technology of Beijing, China, July 2014.
- "Smart Materials Incorporating Shape Memory Alloys", Department of Polymer Science and Engineering, University of Science and Technology of Beijing, China, July 2014.
- "Electrical Response of Polymers and Polymer Matrix Micro/Nano-Composites", National Technical University of Athens, School of Chemical Engineering, Master's Programme in "Materials Science", May 2015.
- "Conductivity and Electrical Percolation in Polymers and Polymer Matrix Micro/Nano-Composites", Master's Programme in "Materials Science", May 2015.
- "Ceramic particles/epoxy resin nanodielectrics: development, electrical response, functionality and energy storage", Workshop, Polymer Nanocomposites: Synthesis, Properties, Modeling, Applications, 16-17 June 2015, National Technical University of Athens, Athens, Greece.
- "Dielectric Materials and Broadband Dielectric Spectroscopy: Introductory Remarks", Faculty of Mechanical Engineering, Department of Polymer Engineering, Budapest University of Technology and Economics, Hungary, April 2016.

- "Ceramic Particles/Epoxy Resin Nanodielectrics: Development, Electrical Response, Functionality and Energy Storage", Faculty of Mechanical Engineering, Department of Polymer Engineering, Budapest University of Technology and Economics, Hungary, April 2016.
- "Conductivity and Electrical Percolation in Polymers and Polymer Matrix Micro/Nano-Composites", Faculty of Mechanical Engineering, Department of Polymer Engineering, Budapest University of Technology and Economics, Hungary, April 2016.

Professional Affiliations:

- Member of the Hellenic Society of Science and Technology of Condensed Matter.
- Member of the Hellenic Polymer Society.
- Member of the Hellenic Society of Composite Materials.
- Member of the Hellenic Society for Thermal Analysis.
- Member of the European Society for Composite Materials.
- Member of the Advisory Committee of the International Union of Advanced Materials Society.

Publications:

a) Refereed Papers

- 97). Oriented ultra-high molecular weight polyethylene/gold nanocomposites: Electrical conductivity and chain entanglement dynamics.
S. X. Drakopoulos, **G. C. Psarras**, S. Ronca,
Express Polymer Letters,
vol. 15, (2021), in press.
- 96). Boron nitride/epoxy resin nanocomposites: development, characterization and functionality.
A. C. Konstantinou, A. C. Patsidis, **G. C. Psarras**,
Journal of Thermal Analysis and Calorimetry,
doi.org/10.1007/s10973-020-09933-z, (2020), in press.
- 95). Development and characterization of multifunctional Yttrium Iron Garnet /epoxy nanodielectrics.
A. Sanida, S. G. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
Journal of Thermal Analysis and Calorimetry,
vol. 142, (2020), p. 1701–1708.
- 94). A comparative study on the thermomechanical and electrical properties of carbide/ or graphite/epoxy reinforced composites.
S. Gioti, S. G. Stavropoulos, A. Sanida, **G. C. Psarras**,
Journal of Thermal Analysis and Calorimetry,
vol. 142, (2020), p. 1649–1657.

- 93). *Panacea*: A Greek ancient myth “living” in materials science?
G. C. Psarras,
Express Polymer Letters,
vol.14(12), (2020), p. 1105.
- 92). The effect of micro-fibrillated cellulose upon the dielectric relaxations and DC conductivity in thermoplastic starch bio-composites.
S. X. Drakopoulos, J. Karger-Kocsis, **G. C. Psarras**,
Journal of Applied Polymer Science,
doi.org/10.1002/app.49573, (2020).
- 91). On the ferroelectric to paraelectric structural transition of BaTiO₃ micro/nano particles and their epoxy nanocomposites.
G. C. Manika, K. S. Andrikopoulos, **G. C. Psarras**,
Molecules,
vol. 25, (2020), art. no 2686.
- 90). Probing the multifunctional behaviour of barium zirconate/barium titanate/epoxy resin hybrid nanodielectrics.
Z. M. Tsikriteas, G. C. Manika, A. C. Patsidis, **G. C. Psarras**,
Journal of Thermal Analysis and Calorimetry,
vol. 142, (2020), p. 231–243.
- 89). Probing the magnetoelectric response and energy efficiency in Fe₃O₄/epoxy nanocomposites.
A. Sanida, S. G. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
Polymer Testing,
vol. 88, (2020), art. no 106560.
- 88). A comparative study on the electrical properties of different forms of carbon allotropes – epoxy nanocomposites.
S. G. Stavropoulos, A. Sanida, **G. C. Psarras**,
Express Polymer Letters,
vol. 14(5), (2020), p. 477–490.
- 87). SrTiO₃/epoxy nanodielectrics as bulk energy storage and harvesting systems: The role of conductivity.
G. C. Manika, **G. C. Psarras**,
ACS Applied Energy Materials,
vol. 3, (2020), p. 831–842.
- 86). Investigating the Effect of Zn ferrite nanoparticles on the thermomechanical, dielectric and magnetic properties of polymer nanocomposites.
A. Sanida, S. G. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
Materials,
vol. 12, (2019), art, no. 3015 (12p).
- 85). Development, Dielectric Response and Functionality of SrTiO₃/Epoxy Nanocomposites.
G. C. Manika, **G. C. Psarras**,
Journal of Materials Science : Materials in Electronics,
vol. 30(14), (2019), p. 13740–13748.

- 84). Atmospheric Plasma Nanotexturing of Organic–Inorganic Nanocomposite Coatings for Multifunctional Surface Fabrication.
P. Dimitrakellis, A. C. Patsidis, A. Smyrnakis, **G. C. Psarras**, E. Gogolides, *ACS Applied Nanomaterials*, vol. 2(5), (2019), p. 2969-2978.
- 83). ZnTiO₃/Epoxy Resin Nanocomposites: Development, Dielectric Behaviour and Functionality.
E. Koufakis, G. N. Mathioudakis, A. C. Patsidis, **G. C. Psarras**, *Polymer Testing*, vol. 77, (2019), art. no 105870.
- 82). Barium titanate/epoxy resin composite nanodielectrics as compact capacitive energy storing systems.
G. C. Manika, **G. C. Psarras**, *Express Polymer Letters*, vol.13(8), (2019), p. 749–758.
- 81). Combined optimized effect of a highly self-organized nanosubstrate and an electric field on osteoblast bone cells activity.
D. V. Portan, D. D. Deligianni, G. C. Papanicolaou, V. Kostopoulos, **G. C. Psarras**, M. Tyllianakis, *BioMed Research International*, article ID 7574635, 8 pages, (2019).
- 80). Polyvinylidene fluoride/magnetite nanocomposites: Dielectric and thermal response.
C. Tsonos, H. Zois, A. Kanapitsas, N. Soin, E. Siores, G. D. Peppas, E. C. Pyrgioti, A. Sanida, S. G. Stavropoulos, **G. C. Psarras**, *Journal of Physics and Chemistry of Solids*, vol. 129, (2019), p. 378-386.
- 79). In situ thermodielectric analysis of the gelatinization mechanism of raw maize starch: An experimental and theoretical approach.
S. X. Drakopoulos, J. Karger-Kocsis, **G. C. Psarras**, *Journal of Polymers and the Environment*, vol. 27, (2019), p. 333–342.
- 78). Nanocomposites of barium titanate nanoparticles embedded in thermosetting polymer matrices (novolac resin/unsaturated polyesters/epoxy resin): A comparative study.
I. A. Asimakopoulos, **G. C. Psarras**, L. Zoumpoulakis, *ChemEngineering*, vol. 3, (2019), art. no. 3 (20p).
- 77). Assessing the critical multifunctionality threshold for optimal electrical, thermal, and nanomechanical properties of carbon nanotubes/epoxy nanocomposites for aerospace applications.
A.-F. A. Trompeta, E. P. Koumoulos, S. G. Stavropoulos, Th. G. Velmachos, **G. C. Psarras**, C. A. Charitidis, *Aerospace*, vol. 6, (2019), art. no. 7 (18p).

- 76). Magneto-dielectric behaviour of M-Type hexaferrite/polymer nanocomposites.
A. Sanida, S. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
Materials,
vol. 11, (2018), art. no. 2551 (14p).
- 75). A comparative thermomechanical study of ferrite/polymer nanocomposites.
A. Sanida, S.G. Stavropoulos, **G.C. Psarras**,
Structural Integrity Procedia,
vol. 10, (2018), p. 257-263.
- 74). Thermomechanical response of Fe₃O₄/PVDF nanocomposites.
A. Sanida, Th.G. Velmachos, S.G. Stavropoulos, **G.C. Psarras**, C. Tsonos,
A. Kanapitsas, N. Soin, E. Siores,
Structural Integrity Procedia,
vol. 10, (2018), p. 91-96.
- 73). A 'backstage force': magnetic properties of polymer composites.
G. C. Psarras,
Express Polymer Letters,
vol. 12(9), (2018), p. 767.
- 72). Entanglement dynamics in ultra-high molecular weight polyethylene as revealed by dielectric spectroscopy.
S. X. Drakopoulos, **G. C. Psarras**, G. Forte, I. Martin-Fabiani, S. Ronca,
Polymer,
vol. 150, (2018), p. 35-43.
- 71). Development, multiple characterization and functionality in magnetic nanoparticles – polymer matrix nanodielectrics.
A. Sanida, S. G. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
Materials Today: Proceedings
vol. 5, (2018), p. 27491–27499.
- 70). Dielectric response of vulcanized natural rubber containing BaTiO₃ filler: The role of particle functionalization.
N. González, M. Àngels Custal, G. N. Tomara, **G. C. Psarras**, J.-R. Riba,
E. Armelin,
European Polymer Journal,
vol. 97, (2017), p. 57–67.
- 69). Dielectric relaxation mechanisms in polyoxymethylene/ polyurethane/ layered silicates hybrid nanocomposites.
G. N. Tomara, P. K. Karahaliou, **G. C. Psarras**, S. N. Georga,
C. A. Krontiras, S. Siengchin, J. Karger-Kocsis,
European Polymer Journal,
vol. 95, (2017), p. 304–313.

- 68). Development, characterization, energy storage and interface dielectric properties in SrFe₁₂O₁₉/epoxy nanocomposites.
A. Sanida, S. G. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
Polymer,
vol. 120, (2017), p. 73-81.
- 67). Magneto-electric response and functionality in barium ferrite/barium titanate/epoxy resin nanocomposites.
A. Kanapitsas, **G. C. Psarras**, C. Tsonos, A. Speliotis, A. C. Patsidis,
E. Siores, D. Triantis,
Journal of Advanced Physics,
vol. 6, (2017), p. 69-75.
- 66). Thermoplastic starch modified with microfibrillated cellulose and natural rubber latex: A broadband dielectric spectroscopy study.
S. X. Drakopoulos, J. Karger-Kocsis, Á. Kmetty, L. Lendvai,
G. C. Psarras,
Carbohydrate Polymers,
vol. 157, (2017), p. 711-718.
- 65). Energy storage and harvesting in BaTiO₃/epoxy Nanodielectrics.
G. C. Manika, **G. C. Psarras**,
High Voltage,
vol. 1(4), (2016), p. 151-157.
- 64). "Energy materials"...the role of polymers.
G. C. Psarras,
Express Polymer Letters,
vol. 10, (2016), p. 721.
- 63). Dielectric response and molecular dynamics in epoxy-BaSrTiO₃ nanocomposites: effect of nanofiller loading.
O. Vryonis, D. L. Anastassopoulos, A. A. Vradis, **G. C. Psarras**,
Polymer,
vol. 95, (2016), p. 82-90.
- 62). Electromagnetic wave absorption properties of ternary poly(vinylidene fluoride)/magnetite nanocomposites with carbon nanotubes and graphene.
C. Tsonos, N. Soin, G. Tomara, B. Yang, **G. C. Psarras**, A. Kanapitsas,
E. Siores,
RSC Advances,
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- 61). Barium ferrite/epoxy resin nanocomposite systems: Fabrication, dielectric, magnetic and hydration studies.
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5th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC5) and 14th Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta 2019),
27 to 30 of August 2019, Rome, Italy.
- 75). Au/ultra-high molecular weight polyethylene nanodielectrics: the effect of calendaring on the electrical energy storage potential.
S. X. Drakopoulos, G. C. Manika, **G. C. Psarras**, S. Ronca,
6th International Symposium Frontiers in Polymer Science,
5-8 May 2019, Budapest, Hungary.

- 74). Boron nitride/epoxy resin nanocomposites: development, characterization and functionality.
A. C. Konstantinou, A. C. Patsidis, **G. C. Psarras**,
2nd Journal of Thermal Analysis and Calorimetry Conference and 7th V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference, June 18–21, 2019, Budapest, Hungary.
- 73). Probing the multifunctional behaviour of barium zirconate/barium titanate/epoxy resin hybrid nanodielectrics.
Z.-M. Tsikriteas, A. C. Patsidis, **G. C. Psarras**,
2nd Journal of Thermal Analysis and Calorimetry Conference and 7th V4 (Joint Czech-Hungarian-Polish-Slovakian) Thermoanalytical Conference, June 18–21, 2019, Budapest, Hungary.
- 72). Dielectric and mechanical characterization of epoxy resin/silicon carbide nanocomposites.
T. G. Velmachos, **G. C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.
- 71). Development, characterization and functionality of epoxy resin-barium zirconate nanocomposites.
Z.-M. Tsikriteas, A. Sanida, S. G. Stavropoulos, A. C. Patsidis, **G. C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.
- 70). Investigating the dielectric response of carbon black/epoxy nanocomposites incorporating magnetite nanoparticles.
S. G. Stavropoulos, A. Sanida, **G. C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.
- 69). Electromagnetic response and thermomechanical properties of multifunctional ZnFe₂O₄/epoxy nanodielectrics.
A. Sanida, S. G. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.
- 68). Barium titanate or carbon/polydimethylsiloxane nano/micro-composites: dielectric response, functional behavior and energy storage.
A. C. Patsidis, **G. C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.
- 67). Energy storage and harvesting in barium strontium titanate/epoxy nanodielectrics.
G.C. Manika, **G.C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.

- 66). A comparative study on the thermomechanical properties of carbides/or graphite/epoxy composites.
S. Gioti, S. Stavropoulos, A. Sanida, **G. C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.
- 65). Dielectric behavior and functionality in epoxy resin/barium oxide composite materials.
A.C. Konstantinou, A. Sanida, A.C. Patsidis, **G.C. Psarras**,
12th Hellenic Polymer Society International Conference, 30 September–3 October 2018, Ioannina, Greece.
- 64). Dielectric properties of polycaprolactone-hydroxyapatite/barium titanate nanocomposite membranes.
E. Mystiridou, A. C. Patsidis, N. Bouropoulos, **G. C. Psarras**,
XLV ESAO Congress, European Society for Artificial Organs,
12-15 September 2018, Madrid, Spain.
- 63). Electrospinning effect on the relaxation molecular dynamics of poly(D,L-lactide) via dielectric relaxation spectroscopy.
S. X. Drakopoulos, **G. C. Psarras**, P. Wang, S. Ronca, D. Nocita, E. Mele,
29th European Conference on Biomaterials,
September 9–13, 2018 in Maastricht, the Netherlands.
- 62). Understanding the evolution of entanglements upon the dielectric relaxations in dis-UHMWPE in the presence of Al₂O₃ catalytic ashes.
S. X. Drakopoulos, **G. C. Psarras**, S. Ronca,
10th Conference on Broadband Dielectric Spectroscopy and Its Applications,
26th – 31th August 2018, Brussels, Belgium.
- 61). An Experimental and Theoretical Analysis of the Dielectric and Rheological Spectra of nascent disentangled UHMWPE in the Melt State.
S. X. Drakopoulos, G. Forte, **G. C. Psarras**, S. Ronca,
Physical Aspects of Polymer Science 2017,
IOP Institute of Physics, 13-15 September 2017, Swansea University, Bay Campus, Swansea, UK.
- 60). Study of the dielectric relaxation spectrum of Polyoxymethylene/Polyurethane/Layered silicates (POM/PU/LS) nanocomposites.
G. Tomara, P. Karahaliou, **G. C. Psarras**, S. N. Georga, C. A. Krontiras, S. Siengchin, J. Karger-Kocsis,
Euromat 2017, European Congress and Exhibition on Advanced Materials and Processes, September 17-22, 2017, Thessaloniki, Greece.
- 59). Effect of moisture and filler content on the dielectric response of PA6/Boehmite alumina nanocomposites.
G. Tomara, P. Karahaliou, **G. C. Psarras**, S. N. Georga, C. A. Krontiras, L. Lendvai, J. Karger-Kocsis,
Euromat 2017, European Congress and Exhibition on Advanced Materials and Processes, September 17-22, 2017, Thessaloniki, Greece.

- 58). A comparative study on the electrical properties of different forms of carbon allotropes/epoxy nanocomposites
S. G. Stavropoulos, A. Sanida, **G. C. Psarras**,
Euromat 2017, European Congress and Exhibition on Advanced Materials and Processes, September 17-22, 2017, Thessaloniki, Greece.
- 57). Fe₃O₄/epoxy nanocomposites: Manufacturing, characterization and functionality
A. Sanida, S. G. Stavropoulos, Th. Speliotis, **G. C. Psarras**,
Euromat 2017, European Congress and Exhibition on Advanced Materials and Processes, September 17-22, 2017, Thessaloniki, Greece.
- 56). Improvement of dielectric properties in ac and dc of natural rubber/BaTiO₃-OH composites.
N. Gonzalez, M. A. Angels, D. Rodriguez, **G. C. Psarras**, E. Armelin, J. Riba,
IUPAC-PSK40, International Conference on Advanced Polymeric Materials : Commemorating the 40th Anniversary of the Polymer Society of Korea (PSK), International Conference Center Jeju, Jeju, Korea, October 4-7, 2016.
- 55). Epoxy Resin -Zinc Ferrite Nanocomposites: Development, Thermomechanical Properties, Dielectric Response and Energy Storage.
S. G. Stavropoulos, A. Sanida, **G. C. Psarras**,
International Conference in "Science in Technology", National Hellenic Research Foundation, Athens, Greece, November 5-7, 2015.
- 54). Swelling and Plasticization Phenomena of Semi-Crystalline Microfibrillated Cellulose: an Investigation via Dielectric Relaxation Spectroscopy.
S. X. Drakopoulos, **G. C. Psarras**, J. Karger-Kocsis,
International Conference in "Science in Technology", National Hellenic Research foundation, November 5-7, 2015.
- 53). Development and Characterization of Epoxy Resin - Strontium Ferrite Nanocomposites.
A. Sanida, S. G. Stavropoulos, E. C. Senis, O. Vryonis, **G. C. Psarras**,
International Conference in "Science in Technology", National Hellenic Research foundation, November 5-7, 2015.
- 52). Morphology, Dielectric Properties and Functionality of ZnTiO₃ / Epoxy Resin Nanocomposites.
E. I. Koufakis, T. Velmachos, A. C. Patsidis, **G. C. Psarras**,
International Conference in "Science in Technology", National Hellenic Research foundation, November 5-7, 2015.
- 51). Barium Ferrite/Barium Titanate/Epoxy Resin Hybrid Nanocomposites: study of properties and functionality.
A. Kanapitsas, C. Tsonos, **G. C. Psarras**, Th. Speliotis,
International Conference in "Science in Technology", National Hellenic Research foundation, November 5-7, 2015.

- 50). Ceramic Particles/Epoxy Resin Nanodielectrics: Development, Dielectric Response and Functionality.
G. C. Psarras, A. Kanapitsas, C. Tsonos,
 10th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Manchester Conference Center, England, UK, 13-16 September 2015.
- 49). Probing the Dielectric Response in Yttrium Oxide /Epoxy Resin Nanocomposites.
 T. Velmachos, O. Vryonis, E. C. Senis, **G. C. Psarras**,
 10th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Manchester Conference Center, England, UK, 13-16 September 2015.
- 48). Electrical and Dielectric Response of PVDF/CNT/Fe₃O₄ Nanocomposites.
 C. Tsonos, E. Siores, A. Kanapitsas, **G. C. Psarras**, Th. Speliotis,
 10th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Manchester Conference Center, England, UK, 13-16 September 2015.
- 47). Multifunctionality of Fe₃O₄-CNT and Fe₃O₄- Graphene Embedded PVDF Nanocomposites.
 C. Tsonos, E. Siores, A. Kanapitsas, **G. C. Psarras**,
 10th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Manchester Conference Center, England, UK, 13-16 September 2015.
- 46). Barium Ferrite/Barium Titanate/Epoxy Resin Hybrid Nanocomposites: Development, Characterization and Energy Storage.
 A. Kanapitsas, C. Tsonos, **G. C. Psarras**, Th. Speliotis, D. Triantis,
 10th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Manchester Conference Center, England, UK, 13-16 September 2015.
- 45). Nitinol layered composites: manufacturing and electrical properties.
 E. J. Pappa, **G. C. Psarras**, D. V. Portan, G. C. Papanicolaou,
 The 6th International Conference on Structural Analysis of Advanced Materials, ICSAAM 2015,
 8 - 11 September 2015, Porto, Portugal.
- 44). Ceramic particles/epoxy resin nanodielectrics: development, electrical response, functionality and energy storage.
G. C. Psarras,
 Workshop, Polymer Nanocomposites: Synthesis, Properties, Modeling, Applications,
 16-17 June 2015, National Technical University of Athens, Athens, Greece.
- 43). Studying the adsorbed humidity in variable fiber length cellulose biocomposites and hybrids via thermal and dielectric techniques.
 S. X. Drakopoulos, **G. C. Psarras**, L. Lendvai, Á. Kmetty, J. Karger-Kocsis,
 Workshop, Polymer Nanocomposites: Synthesis, Properties, Modeling, Applications,
 16-17 June 2015, National Technical University of Athens, Athens, Greece.

- 42). On the impact of filler loading and particle size upon structural characteristics, dielectric response and molecular dynamics in polymer nanocomposites.
E. C. Senis, O. Vryonis, **G. C. Psarras**,
Workshop, Polymer Nanocomposites: Synthesis, Properties, Modeling, Applications,
16-17 June 2015, National Technical University of Athens, Athens, Greece.
- 41). Thermal and dielectric properties of graphene/poly cyclic butylenes terephthalate (pCBT) nanocomposites.
S. G. Stavropoulos, J. Karger-Kocsis, **G. C. Psarras**,
Workshop, Polymer Nanocomposites: Synthesis, Properties, Modeling, Applications,
16-17 June 2015, National Technical University of Athens, Athens, Greece.
- 40). Dielectric characterization of yttrium oxide /epoxy resin nanocomposites.
T. Velmachos, O. Vryonis, E. C. Senis, **G. C. Psarras**,
Workshop, Polymer Nanocomposites: Synthesis, Properties, Modeling, Applications,
16-17 June 2015, National Technical University of Athens, Athens, Greece.
- 39). On the origin and relaxation dynamics of γ -mode in polyoxymethylene (POM) and POM based nanocomposites.
P. K. Karahaliou, G. N. Tomara, **G. C. Psarras**, S. N. Georga, C. A. Krontiras, J. Karger-Kocsis,
Fourth International Symposium Frontiers in Polymer Science in association with the journal Polymer,
20-22 May 2015, Riva del Garda (on Lake Garda), Italy.
- 38). ZnO/epoxy resin and BaTiO₃/epoxy resin nanocomposites: Development, Electrical characterisation and Relaxation dynamics.
G. N. Tomara, **G. C. Psarras**, A. Kanapitsas, C. Tsonos,
Fourth International Symposium Frontiers in Polymer Science in association with the journal Polymer,
20-22 May 2015, Riva del Garda (on Lake Garda), Italy.
- 37). Epoxy Resin/Barium Ferrite (BaFe) nanocomposites: A study of water sorption dynamics.
A. Georgakilas, S. Kriptou, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
Eurofillers Polymer Blends 2015, Montpellier, France, April 26th – 30th, 2015
- 36). Dielectric response, functionality and energy storage in perovskite type ceramics/epoxy resin nanodielectrics.
S. Kriptou, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
Fourth International Conference on Multifunctional, Hybrid and Nanomaterials (HYMA 2015),
9-13 March, 2015, Sitges (near Barcelona), Spain.

- 35). Dielectric and functional properties of polymer matrix/ZnO/BaTiO₃ hybrid nano-composites.
S. Kriptomou, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
Fourth International Conference on Multifunctional, Hybrid and Nanomaterials (HYMA 2015),
9-13 March, 2015, Sitges (near Barcelona), Spain.
- 34). Barium Titanate Nano- and/or Micro- Polymer Composites: Development, Characterization, and Energy Storage.
A. C. Patsidis, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
9th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Trinity College Dublin,
Republic of Ireland, 8-11 September 2014.
- 33). Development, Characterization, and Energy Storage of Polar Oxides/Polymer Matrix Nanodielectrics.
G. N. Tomara, C. Tsonos, A. Kanapitsas, **G. C. Psarras**,
9th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Trinity College Dublin,
Republic of Ireland, 8-11 September 2014.
- 32). Graphite Nanoplatelets or Barium Titanate-Polydimethylsiloxane Nano/Micro-composites: Development, Characterization, and Energy Storage.
A. C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,
9th NANOSMAT, International Conference on Surfaces, Coatings and Nanostructured Materials, Trinity College Dublin,
Republic of Ireland, 8-11 September 2014.
- 31). Dielectric and Magnetic Properties of Barium Ferrite/Epoxy resin nanocomposite system.
Th. Speliotis, E. G. Moshopoulou, S. Thanos, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
2nd USA International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT-USA 2014),
19-22 May 2014, Houston, Texas, USA.
- 30). Barium titanate- epoxy resin nanocomposites: development, dielectric response, functionality and energy storage.
A. C. Patsidis, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
The 5th International Conference on Structural Analysis of Advanced Materials (ICSAAM 2013),
23 - 26 September 2013, Island of Kos, Greece.
- 29). Barium Ferrite/epoxy resin nanocomposite as a multifunctional nanomaterial system: development, dielectric response, magnetic properties and energy storage.
Th. Speliotis, E. G. Moshopoulou, S. Thanos, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
The 5th International Conference on Structural Analysis of Advanced Materials (ICSAAM 2013),
23 - 26 September 2013, Island of Kos, Greece.

- 28). Zinc titanate/epoxy resin nanodielectrics: morphology, dielectric response and energy storage.
G. C. Psarras, A. Kanapitsas, C. Tsonos,
 8th International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT 2013),
 22-25 September 2013, Granada, Spain.
- 27). Graphite nanoplatelets / barium titanate / epoxy resin hybrid nanocomposites: thermomechanical, dielectric and functional behaviour
 A.C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,
 8th International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT 2013),
 22-25 September 2013, Granada, Spain.
- 26). Dielectric and thermal response of ZnO/epoxy resin nanocomposites.
 C. Tsonos, A. Kanapitsas, **G. C. Psarras**, E. G. Moshopoulou, S. Thanos, Th. Speliotis,
 7th International Discussion Meeting on Relaxations on Complex Systems,
 21-26 July 2013, Barcelona, Spain.
- 25). Thermal and dielectric functional properties of epoxy resin-titanium carbide nanocomposites.
 A Kanapitsas, C Tsonos, **G. C. Psarras**,
 7th International Discussion Meeting on Relaxations on Complex Systems,
 21-26 July 2013, Barcelona, Spain.
- 24). Broadband dielectric response and energy storage in elastomeric/inorganic filler nanocomposites.
 A.C. Patsidis, E. Pappa, **G.C. Psarras**,
 1st International Congress on Materials and Renewable Energy,
 1-3 July 2013, Athens, Greece, University of Bolton.
- 23). Graphite nanoplatelets and/or barium titanate / polymer nanocomposites : thermomechanical properties, dielectric response and energy storage.
 A.C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,
 1st International Congress on Materials and Renewable Energy,
 1-3 July 2013, Athens, Greece, University of Bolton.
- 22). Influence of the TiO₂ filler concentration in polymer matrices on the energy storage using Isothermal Depolarization Currents.
 D. Triantis, I. Stavrakas, K. Moutzouris, T. G. Maliaros, **G. C. Psarras**,
 A. Kanapitsas, C. Tsonos,
 1st International Congress on Materials and Renewable Energy,
 1-3 July 2013, Athens, Greece, University of Bolton.
- 21). Electrical relaxation phenomena in TiO₂-polymer matrix nanocomposites.
 G. N. Tomara, A. P. Kerasidou, P. K. Karahaliou, **G. C. Psarras**,
 S. N. Georga, C. A. Krontiras,
 4th International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N),
 16-20 June 2013, Corfu, Greece.

- 20). Graphite nanoplatelets/ polymer nanocomposites: thermomechanical, dielectric and functional behaviour.
A. C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,
11th Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2013), 12-15 June 2013, Athens, Greece.
- 19). Dynamic electrical thermal analysis on ZnO-epoxy resin nanodielectrics.
G. N. Mathioudakis, A. C. Patsidis, **G. C. Psarras**,
11th Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2013), 12-15 June 2013, Athens, Greece.
- 18). Hybrid nanocomposites of ZnTiO₃/BaTiO₃/ epoxy resin: functionality, dielectric and thermal properties.
E. I. Koufakis, A. C. Patsidis, **G. C. Psarras**,
11th Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2013), 12-15 June 2013, Athens, Greece.
- 17). Polar oxides/epoxy resin hybrid composites: thermal, electrical and functional behaviour.
D. Triantis, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,
EMRS 2013 SPRING MEETING
May 27-31, 2013, Palais des congres, Strasburg, France,
Symposium F: Nanomaterials for energy conversion and storage.
- 16). Mechanical and dielectric properties of barium titanate/polyester nanocomposite materials.
I. A. Asimakopoulos, **G. C. Psarras**, L. Zoumpoulakis,
9th International Conference on Nanosciences & Nanotechnologies (NN12),
3-6 July 2012, I. Vellidis Congress Center, Thessaloniki Greece.
- 15). Physical and dielectric properties of functionalized graphene/poly(vinyl alcohol) nanocomposites.
I. Tantis, **G. C. Psarras**, D. Tasis,
Fullerene Silver Anniversary Symposium, FSAS 2010,
4-10 October 2010, Hersonissos, Crete, Greece.
- 14). Dielectric relaxations and thermal properties in epoxy resin-TiO₂ composites.
C. Tsonos, A. Kanapitsas, H. Zois, **G. C. Psarras**,
10th International Workshop on Non Crystalline Solids, IWNCs 10,
20-23 April 2010, Barcelona, Spain.
- 13). Temperature dependence of the dielectric response of epoxy resin-ZnO microcomposites.
A. Soulintzis, G. Kontos, P. K. Karahaliou, **G. C. Psarras**,
S. N. Georga, C. A. Krontiras,
7th General Conference of the Balkan Physical Union, 9-13 September 2009, Alexandroupolis, Greece.
- 12). Electrical relaxation and conductivity processes in polymer matrix – ZnO composites.
A. Soulintzis, G. Kontos, P. K. Karahaliou, **G. C. Psarras**,
S. N. Georga, C. A. Krontiras, M. N. Pisanias,

International Conference on Structural Analysis of Advanced Materials,
ICSAM-2007, September 2-6, 2007, Patras, Greece.

- 11). Dielectric and conductivity dispersions in natural and polyurethane rubber blend-layered silicate loaded nanocomposites.
A. Kalini, K. G. Gatos, P. K. Karahaliou, S. N. Georga, C. A. Krontiras,
G. C. Psarras, J. Karger-Kocsis,
International Conference on Structural Analysis of Advanced Materials,
ICSAM-2007, September 2-6, 2007, Patras, Greece.
- 10). Electrical relaxation dynamics in polymer matrix – TiO₂ composites
G. Kontos, A. Soulintzis, P. K. Karahaliou, **G. C. Psarras**, S. N. Georga,
C. A. Krontiras, M. N. Pisanias.
3rd China-Europe Symposium on Processing and Properties of Reinforced
Polymers,
Budapest University of Technology and Economics,
Budapest, Hungary, June 11-15, 2007.
- 9). Relaxation phenomena in rubber/layered silicate nanocomposites.
G. C. Psarras, K. G. Gatos, P. K. Karahaliou, S. N. Georga,
C. A. Krontiras, J. Karger-Kocsis.
3rd China-Europe Symposium on Processing and Properties of Reinforced
Polymers,
Budapest University of Technology and Economics,
Budapest, Hungary, June 11-15, 2007.
- 8). Optical and dielectric properties of ZnO/PVA nanocomposites.
S. Baskoutas, N. Bouropoulos, N. Moustakas, **G. C. Psarras**
EMRS 2007 SPRING MEETING
May 27th-June 1st, 2007, Palais des congres, Strasburg, France,
Symposium I: Advances in transparent electronics:
from materials to devices - II.
- 7). Effect of mechanical and thermal load on the Raman spectra of aramid
fibres.
D. Bolas, J. Parthenios, **G. C. Psarras**, C. Galiotis,
15th European Symposium On Polymer Spectroscopy,
ESOPS 15, June 8-12, 2003, Crete, Greece.
- 6). Adaptive composites incorporating Shape Memory Alloy wires; effect of
wire/resin interface upon internal stress transmission.
J. Parthenios, **G. C. Psarras**, D. Bolas, C. Galiotis,
Seventh International Conference on Interfacial Phenomena in Composite
Materials, IPCM 2001,
11 to 14 September 2001,
Palais des Congrès d' Arcachon, Arcachon, France.
- 5). *In Situ* measurements of the stress transfer efficiency of full composites
during mechanical loading.
G. C. Psarras, J. Parthenios, C. Koimtzoglou, C. Galiotis,
Seventh International Conference on Interfacial Phenomena in Composite
Materials, IPCM 2001,
11 to 14 September 2001,

Palais des Congrès d' Arcachon, Arcachon, France.

- 4). Aramid Fibres; a Multifunctional Sensor for Monitoring Stress and Strain Fields and Damage Development in Composite Materials.
J. Parthenios, D. G. Katerelos, **G. C. Psarras**, C. Galiotis,
High Performance Fibres Conference, European Science Foundation in association with UPM, UIB, CICYT, NASA and DuPont, October 19-24, 2000, Palma de Mallorca, Spain.
- 3). Modelling the dielectric behaviour of an hybrid composite.
G. M. Tsangaris, **G. C. Psarras**, S. Sapalidis,
2nd International Discussion Meeting on Relaxations of Complex Systems, 28 June-8 July 1993, Alicante Spain.
- 2). Modelling the dielectric behaviour of a non conductor loaded dielectric.
G. M. Tsangaris, **G. C. Psarras**, G. Maistros,
2nd International Discussion Meeting on Relaxations of Complex Systems, 28 June-8 July 1993, Alicante Spain.
- 1). Dielectric permittivity and loss of an aluminum - filled epoxy resin.
G. M. Tsangaris, **G. C. Psarras**, A. Kontopoulos,
1st International Discussion Meeting on Relaxations of Complex Systems, 18-29 June 1990, Iraklion Crete, Greece.

d) Chapters in books / Textbooks

- 1). Conductivity and dielectric characterization of polymer nanocomposites, **G. C. Psarras**, p. 31-69, in "Polymer nanocomposites: Physical properties and applications", edited by S. C. Tjong and Y.-M. Mai, ISBN: 978-1-84569-672-6. Woodhead Publishing Limited, Cambridge, 2010.
- 2). Relaxation phenomena in elastomeric nanocomposites, **G. C. Psarras** and K. G. Gatos, p. 89-118, in "Recent advances in elastomeric nanocomposites", edited by V. Mittal, J. K. Kim and K. Pal, ISBN: 978-3-642-15786-8. Springer-Verlag, Berlin-Heidelberg, 2011.
- 3). Nanographite-polymer composites, **G. C. Psarras**, p. 647-673, in "Carbon Nanomaterials Sourcebook: Nanoparticles, Nanocapsules, Nanofibers, Nanoporous Structures and Nanocomposites", edited by K. D. Sattler, ISBN: 13:978-1-4822-5270-. Taylor & Francis, 2016.
- 4). Fundamentals of dielectric theories, **G. C. Psarras**, in "Dielectric polymer materials for high-density energy storage", edited by Zhi-Min Dang, ISBN: 978-0-12-813215-9, <https://doi.org/10.1016/C2016-0-04505-9>, Elsevier, 2018.
- 5). Applications of dielectric analysis (DEA) to multi-component polymeric systems, A. C. Patsidis, **G. C. Psarras**, chapter 11, p. 245-272, in "Polymers and Multicomponent Polymeric Systems: Thermal, Thermo-Mechanical and

Dielectric Analysis", edited by Sabu Thomas, CRC Press, Taylor & Francis Group, ISBN 9781138598140 - CAT# K387622, 2020.

- 6). Dielectric and conductivity studies of epoxy composites, A. C. Patsidis, **G. C. Psarras**, chapter 11, in "Epoxy Composites. Fabrication, Characterization and Applications", edited by Jyotishkumar Parameswaranpillai, Harikrishnan Pulikkalparambil, Sanjay Mavinkere Rangappa, Suchart Siengchin, ISBN 978-3-527-34678-3, Wiley, in press.
- 7). Composite Materials, C. Galiotis, D. Mouzakis, **G. C. Psarras**, University of Patras, Patras, Greece, 2003 p. 180.
- 8). Smart Materials, **G. C. Psarras**, University of Patras, Patras, Greece, 2004 p. 135.
- 9). Materials Science and Engineering an Introduction. W. D. Callister Jr., 9th Edition, John Wiley and Sons Inc., 2015. Translation in Greek, S. Bogiatzis, C. Galiotis, C. Pliangos, **G. C. Psarras** , V. Tangoulis, A. Vanakaras Copyright © for the Greek language Tziollas publishing co, 2016. Translation of chapters 8 (Mechanical Properties of Metals), 10 (Failure), and 19 (Electrical Properties).
- 10). Materials: Engineering, Science, Processing and Design. M. Ashby, H. Shercliff, D. Cebon, 2nd Edition, Elsevier Limited, Oxford, 2010. Translation in Greek, scientific editing, **G. C. Psarras**. Copyright © for the Greek language Klidarithmos publishing co, 2011.

(f) 110 Papers in Proceedings of National Conferences
(mostly in Greek language)

Participation in Scientific and Organizing Conferences' Committees

- Member of the organizing committee of the "XXII Panhellenic Conference on Solid State Physics and Materials Science", University of Patras, 24-27 September 2006, Patras, Greece.
- Member of the organizing committee of the "XXVIII Panhellenic Conference on Solid State Physics and Materials Science", University of Patras, 23-26 September 2012, Patras, Greece.
- Member of the Scientific Advisory Board of the international conference "Advanced Materials World Congress (AMWC 2013)", 16-19 September, 2013, Çeşme, Turkey.
- Member of the Scientific Advisory Board of the international conference "Smart Materials and Surfaces (SMS)", 26-28 August 2014, Bangkok, Thailand.

- Member of the organizing committee of the "10th Hellenic Polymer Society Conference", University of Patras, 4-6 December 2014, Patras, Greece.
- Member of the Scientific Advisory Board of the international conference "Advanced Materials World Congress (AMWC 2015)", 23-26 August 2015, Viking Line, Stockholm, Sweden.
- Co-chairman of the organizing committee of the "XXXIV Panhellenic Conference on Solid State Physics and Materials Science", University of Patras, 11-14 September 2019, Patras, Greece.

Teaching Activities:

Graduate courses:

2004-2019: "Methods of Materials Characterization I", "Methods of Materials Characterization II", "Composite Materials", in the master's degree program of *Materials Science*, University of Patras.

2019-2020: "Advanced Experimental Techniques for Materials Characterization", in the master's degree program of *Materials Science (Advanced Functional Materials)*, University of Patras.

2019-2020: "Advanced Composite and Hybrid Materials" in the master's degree program of *Materials Science (Advanced Functional Materials)*, University of Patras.

2010-2019: "Structure Properties Relationships in Polymers", "Methods of Polymer Characterization, theory and lab" in the master's degree programme of *Science and Technology of Polymers*, University of Patras.

2012-2019: "Materials' Characterization Techniques" in the master's degree program of *Materials Physics*, University of Patras.

2019-2020: "Composite Materials", "Methods of Polymer Characterization, theory and lab" in the master's degree programme of *Science and Technology of Polymers and Composites*, University of Patras.

1998-2000: "Mechanics of Polymers" (lab teaching assistant), in the master's degree program of *Science and Technology of Polymers*, University of Patras.

Undergraduate courses:

2000-2020: "Materials Science I: Introduction, crystal structure, diffusion, mechanical properties" (theory and lab.), "Materials Science VI: Electronic properties of materials" (theory and lab.), "Composite Materials", "Smart Materials", "Physics III: Electromagnetism" (theory and lab.), Department of Materials Science, University of Patras.

2016-2019: "Physics of Polymers, Composites and Liquid Crystals", Department of Physics, University of Patras.

1990-1993: Teaching assistant in the "Physical Chemistry-Electrochemistry" laboratory course, in the departments of Chemical Engineering, Mining and Metallurgist Engineering of National Technical University of Athens.

Research Supervision:

PhD supervision

- "Development, characterization and multi-functional performance of polymer matrix multi-layer composite materials". S. Gioti, PhD Thesis,

Department of Materials Science, University of Patras, Patras, Greece, in progress.

- "Development, characterization and functionality of nanocomposite systems consisted of an epoxy resin reinforced with carbides and forms of carbon". Th. Velmachos, PhD Thesis, Department of Materials Science, University of Patras, Patras, Greece, in progress.
- "Polymer matrix/carbon allotropic forms multifunctional nanodielectrics: Development, characterization, and energy storage". S. Stavropoulos, PhD Thesis, Department of Materials Science, University of Patras, Patras, Greece, in progress.
- "Polymer matrix/magnetic inclusions composite nanodielectrics: Development, characterization and functionality". A. Sanida, PhD Thesis, Department of Materials Science, University of Patras, Patras, Greece, July 2020.
- "Polymer composite nanodielectrics as bulk devices for storing energy". G. Manika, PhD Thesis, Department of Materials Science, University of Patras, Patras, Greece, January 2019.
- "Spectroscopic monitoring of any release of (nano)materials from biopolymeric packaging matrixes into food simulants". S. Andrikaki, PhD Thesis, Department of Materials Science, University of Patras, Patras, Greece, March 2019.
- "Hybrid nanodielectrics of polymer matrix/functional inclusions: Development, characterization and functionality". A. C. Patsidis, PhD Thesis, Polymer Science and Technology Interdepartmental Program, University of Patras, Patras, Greece, February 2015.

MSc supervision

- 2D reinforced polymer matrix nanodielectrics: development, characterization and multi-functional performance. Ch. Blatsi, MSc Thesis, Polymer and Composites Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, in progress.
- Development, electrical response and functionality of the epoxy resin/tin oxide nanoparticles composite system. St. Kavvas, MSc Thesis, Department of Materials Science, University of Patras, Patras, Greece, in progress.
- Development, characterization and functional behaviour of hybrid composite nanodielectrics of BaZrO₃/ZnTiO₃/epoxy resin. I. Gondas, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, in September 2020.
- "Studying the multifunctional behaviour of the composite hybrid system consisted of carbon fibres/TiC nanoparticles/epoxy resin". S. Gioti, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, June 2019.
- "Development and characterization of polymer matrix/titanium boride/boron carbide/tungsten boride". A. Kallinikou, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, June 2019.
- "Multifunctional hybrid nanodielectrics of BaZrO₃/BaTiO₃/epoxy resin: development and characterization". Z.-M. Tsikriteas, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, February 2019.

- "Development and characterization of composite materials consisted of polydimethylsiloxane (PDMS)/Boron nitride". A. C. Konstantinou, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, February 2019.
- "Development, characterization and functional behaviour of silicon carbide (SiC)/polymer matrix composite nanodielectrics". Th. Velmachos, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, February 2017.
- "Electrical response of polymer matrix composite nanodielectrics". A. Karavitis, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, June 2016.
- "Self-healing hydrogels: synthesis and characterization". Th. Sentoukas, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, June 2016.
- "Development, characterization and functional behaviour of Zinc Iron Oxide/epoxy resin nanocomposites". S. Stavropoulos, MSc Thesis, Department of Materials Science, University of Patras, Patras, Greece, November 2015.
- "Development, characterization, and functional behaviour of Strontium Ferrite/epoxy resin nanocomposites". A. Sanida, MSc Thesis, Department of Materials Science, University of Patras, Patras, Greece, November 2015.
- "Studying the dynamic mechanical behaviour of composite materials consisting of epoxy resin and micro- or nano- BaTiO₃ particles". M. Athanasopoulos, MSc Thesis, Department of Materials Science, University of Patras, Patras, Greece, November 2015.
- "Development characterization, and functional behaviour of Boron Carbide/epoxy resin nanocomposites". E. Senis, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, July 2015.
- "Development, characterization, and functional behavior of Barium Strontium Titanate/epoxy resin nanocomposites". O. Vryonis MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, October 2014.
- "Zinc oxide/titanium carbide/polymer matrix: development, characterization and functional, behaviour". G. Mathioudakis, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, March 2013.
- "Development, characterization, and functional behavior of the hybrid nanocomposite system: epoxy resin/zinc titanate/barium titanate". E. Koufakis, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, November 2012.
- "Electrical response of Hydrogenated Nitrile Rubber (HNBR) and rubber blends with Fluorocarbon Elastomer (HNBR/FKM) which incorporate MWCNTs". G. A. Sofos, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, November 2009.
- "Electric response of Poly(ethylene Oxide)/modified multiwall carbon nanotubes nanocomposites". P. Pontikopoulos, MSc Thesis, Department of Materials Science, University of Patras, Patras, Greece, July 2009.
- "Epoxy resin/BaTiO₃ nanodielectrics: development, electrical response and functionality". A. C. Patsidis, MSc Thesis, Polymer Science and Technology

Interdepartmental Programme, University of Patras, Patras, Greece, April 2009.

- "Dielectric response of rubber matrix/inorganic nanoparticles composite systems". A. Kalini, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, March 2008.
- "Shape Memory Alloys: Study of the phase transformations under constrained conditions". P. Petalis, MSc Thesis, Department of Materials Science, University of Patras, Patras, Greece, April 2007.

University Degree (BSc) theses supervision

Supervision of 86 University Degree (BSc) theses of undergraduate students, which resulted in 11 papers in refereed journals and 33 conference papers.

Administration

- Member of the General Assembly of the Department of Materials Science of University of Patras (2003-today)
- Member of the Committee for the Undergraduate Program and Academic Affairs of the Department of Materials Science of University of Patras (2003-2006).
- Member of the Committee for the Organization of Studies of the Department of Materials Science of University of Patras (2003-today).
- Member of the Financial Planning Committee of the Department of Materials Science of University of Patras (2008-2010).
- Coordinator of the Committee of Public Relations and Graduated Students Affairs of the Department of Materials Science of University of Patras (2006-today).
- Member of the executive committee of the post-graduate studies in "Materials Science" of the Department of Materials Science of University of Patras (2003-2018).
- Member of the executive committee of the post-graduate studies in "Polymer Science and Technology" of University of Patras (2004-today).
- Deputy member of the Senate of University of Patras (2010-2011).
- Member of the executive committee of the Hellenic Federation of University Teachers' Associations (2016-2019).
- Chairman of the executive committee of the Master's studies in "Polymer Science and Technology" of University of Patras (2017-today).
- Vice-Chairman of the executive committee of the Master's studies in "Science and Technology of Polymers and Composites Materials" of University of Patras (2018-today).
- President of the Association of Faculty Members of University of Patras, 2018-today.