

## **Dr. GEORGIOS Chr. PSARRAS**

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URL:<http://www.matersci.upatras.gr/en/Psarras>

### **Education and Research Training:**

- Ph.D. in 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:**

- July 2014: Visiting Professor, Department of Polymer Science and Engineering, University of Science and Technology of Beijing, China.
- January 2013 – today: 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.
- Mechanical properties of polymers and composite materials.
- Micromechanics of composite materials using the Laser Raman Spectroscopy.
- Anticorrosive behaviour of composite polymeric systems using impedance spectroscopy.

**Participation in Funded Research Projects:**

Participation in 12 international and national research projects:

- 1). "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.
- 2). "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.
- 3). "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.
- 4). "Dielectric behaviour and conductivity (dc, ac) of metal particles/polymer matrix composite materials". 2<sup>nd</sup> Programme for Post-Doctoral Research in Greece, Greek State Scholarships Foundation. G. C. Psarras, duration: 1999-2000.
- 5). "Adaptive Composites with Embedded Shape Memory Alloy Wires". Brite-Euram (N<sup>o</sup>: 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.
- 6). "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.

- 7). "Development of a MW scale wind turbine for high wind complex terrain sites".  
Growth (Energie) (N<sup>o</sup>: 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.
- 8). "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
- 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). "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.
- 11). "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.

- 12). "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.

### **Publications/Citations:**

57 Refereed papers, 20 full papers in refereed proceedings of international conferences, 34 extended abstracts in proceedings of international conferences, 62 papers in proceedings of national conferences, 2 textbooks, 2 chapters in books, translation of 2 textbooks in Greek.

#### *Citations*

- Over 1092 citations (excluding self-citations, source: Science Citation Index, google.com, scholar.google.com, books.google.com, scopus.com, publish or perish, October 2014).

### **Conference Participation/Attendance:**

20 International conferences, 35 national conferences, 11 invited lectures.

### **Editorial Activity/Invited Lectures**

#### *Editorial membership*

- Member of the Editorial Board of the scientific journal "Express Polymer Letters", BME-PT, [www.expresspolymlett.com](http://www.expresspolymlett.com).
- Member of the Editorial Board of the scientific journal "Advanced Materials Letters", VBRI Press, [www.amlett.com](http://www.amlett.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/Materials Science of the scientific journal "The Scientific World Journal", <https://www.tswj.com/editotrs/materials.science>.
- Member of the Editorial Board of the scientific journal "Journal of Chinese Advanced Materials Society", [http://www.tandfonline.com/loi/TADM20#.UzXH5me\\_nIU](http://www.tandfonline.com/loi/TADM20#.UzXH5me_nIU).
- Member of the Editorial Board of the scientific journal "The Open Industrial & Manufacturing Engineering Journal", Bentham Science Publishers (ISSN:1874-1525), [www.bentham.org/open/toimej/EBM.htm](http://www.bentham.org/open/toimej/EBM.htm).

#### *Active referee in the journals:*

1. Advanced Composites Letters
2. Advanced Functional Materials
3. Advanced Materials
4. Applied Materials & Interfaces
5. Applied Physics Letters
6. E-Polymer
7. Express Polymer Letters

8. Carbon
9. Ceramic International
10. Chemical Physics Letters
11. Composites Part A: Applied Science and Manufacturing
12. Composites Part B: Engineering
13. Composites Science and Technology
14. Journal of Advanced Physics
15. Journal of Applied Physics
16. Journal of Composite Materials
17. Journal of Experimental Nanoscience
18. Journal of Materials Chemistry
19. Journal of Materials Research
20. Journal of Materials Science
21. Journal of Molecular Liquids
22. Journal of Molecular Structure
23. Journal of Nanoresearch
24. Journal of Nanostructured Polymers and Nanocomposites
25. Journal of Physical Chemistry
26. Journal of Physics and Chemistry of Solids
27. Journal of Physics: Condensed Matter
28. Journal of Physics D: Applied Physics
29. Journal of Polymer Research
30. Journal of Polymer Science B: Polymer Physics
31. Journal of Reinforced Plastics and Composites
32. Journal of the American Ceramic Society
33. Journal of Theoretical and Allied Physics
34. Journal of Thermal Analysis and Calorimetry
35. Journal of Thermoplastic Composite Materials
36. International Journal of Applied Ceramic Technology
37. International Journal of Modern Physics B
38. KMUTNB International Journal of Applied Science and Technology
39. Macromolecular Rapid Communications
40. Macromolecules
41. Materials Design
42. Materials Chemistry and Physics
43. Materials Letters
44. Materials Science and Engineering B: Solid State Materials for Advanced Technology
45. Materials Science and Technology
46. Materiaux et Techniques
47. Microsystem Technologies
48. Modern Physics Letters B
49. Nanotechnology
50. New Journal of Physics
51. Physica Scripta
52. Plastics, Rubbers and Composites
53. Polymer
54. Polymer Composites
55. Semiconductor Science and Technology
56. Soft Matter
57. Spectroscopy Letters
58. 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.

### **Professional Affiliations:**

- Member of the Hellenic Society of Science and Technology of Condensed Matter.
- Member of the Hellenic Society of Composite Materials.
- Member of the Hellenic Society for Thermal Analysis.
- Member of the European Society for Composite Materials.

### **Publications:**

#### **a) Refereed Papers**

- 57). Dielectric relaxations in polyoxymethylene and in related nanocomposites: identification and molecular dynamics.  
P. K. Karahaliou, A. P. Kerasidou, S. N. Georga, **G. C. Psarras**,  
C. A. Krontiras, J. Karger-Kocsis,  
Polymer,  
accepted Oct. 2014.

- 56). Water vapour transport enhancement through isotactic polypropylene by incorporating multiwalled carbon nanotubes.  
G. Bounos, K. S. Andrikopoulos, H. Moschopoulou, Th. Ioannides ,  
K. Kouravelou, **G. C. Psarras**, G. A. Voyiatzis,  
Journal of Powder Metallurgy,  
accepted Oct. 2014.
- 55). 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.
- 54). Barium titanate/polyester resin nanocomposites: Development, structure-properties relationship and energy storage capability.  
I. A. Asimakopoulos , **G. C. Psarras**, L. Zoumpoulakis,  
Express Polymer Letters,  
vol. 8(9), (2014), p. 692-707.
- 53). HNBR and its MWCNT reinforced nanocomposites: crystalline morphology and electrical response.  
**G. C. Psarras**, G. A. Sofos, A. Vradis, D. L. Anastassopoulos,  
S. N. Georga, C. A. Krontiras, J. Karger-Kocsis,  
European Polymer Journal,  
vol. 54, (2014), p. 190-199.
- 52). Graphite nanoplatelets/polymer nanocomposites: thermomechanical, dielectric, and functional behaviour.  
A. C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,  
Journal of Thermal Analysis and Calorimetry,  
vol. 116, (2014), p. 41-49.
- 51). Dynamic electrical thermal analysis on zinc oxide/epoxy resin nanodielectrics  
G. N. Mathioudakis, A. C. Patsidis, **G. C. Psarras**,  
Journal of Thermal Analysis and Calorimetry,  
vol. 116, (2014), p. 27-33.
- 50). The ongoing impact of carbon (allotropic forms)/polymer composites.  
**G. C. Psarras**,  
Express Polymer Letters,  
vol. 8(2), (2014), p. 73.
- 49). Structural transition, dielectric properties and functionality in epoxy resin – barium titanate nanocomposites.  
A. C. Patsidis, **G. C. Psarras**,  
Smart Materials and Structures,  
vol. 22, (2013), 115006 (8pp).

- 48). Effect of filler size on the thermal properties of ER/BaTiO<sub>3</sub> composites.  
A. C. Patsidis, S. N. Georga, C. A. Krontiras, **G. C. Psarras**, A. Kanapitsas,  
C. Tsonos,  
Macromolecular Symposia,  
vol. 331-332, (2013), p. 189-196.
- 47). Thermogravimetric and dielectric study of ER/BaTiO<sub>3</sub>/ZnO composites.  
A. Kanapitsas, C. Tsonos, C. G. Delides, **G. C. Psarras**,  
Macromolecular Symposia,  
vol. 331-332, (2013), p. 181-188.
- 46). Thermal and mechanical characterization of epoxy resin nanocomposites.  
A. Kanapitsas, C. Tsonos, H. Zois, C. G. Delides, **G. C. Psarras**,  
Journal of Advanced Physics,  
vol. 2(1), (2013), p. 25-28.
- 45). Carbon or barium titanate reinforced epoxy resin nanocomposites:  
dielectric, thermomechanical and functional behavior.  
A. C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,  
Journal of Advanced Physics,  
vol. 2(1), (2013), p. 7-12.
- 44). Dynamic percolation and dielectric response in multiwall carbon  
nanotubes/poly(ethylene oxide) composites.  
P. L. Pontikopoulos, **G. C. Psarras**,  
Science of Advanced Materials,  
vol. 5, (2013), p. 14-20.
- 43). Dielectric response, functionality and energy storage in epoxy  
nanocomposites: barium titanate vs exfoliated graphite nanoplatelets.  
A. C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,  
Materials Chemistry and Physics,  
vol. 135, (2012), p. 798-805.
- 42). Development and characterization of novolac resin/BaTiO<sub>3</sub> nanoparticles  
composite system.  
I. Asimakopoulos, L. Zoumpoulakis, **G. C. Psarras**,  
Journal of Applied Polymer Science,  
vol. 125, (2012), p. 3737-3744.
- 41). Functionalized graphene-poly(vinyl alcohol) nanocomposites: Physical and  
dielectric properties.  
I. Tantis, **G. C. Psarras**, D. Tasis,  
Express Polymer Letters,  
vol. 6(4), (2012), p. 283-292
- 40). Smart polymer systems: a journey from imagination to applications.  
**G. C. Psarras**  
Express Polymer Letters,  
vol. 5(12), (2011), p. 1027.



- 39). Dielectric relaxation phenomena and dynamics in polyoxymethylene/polyurethane/alumina hybrid nanocomposites.  
**G. C. Psarras**, S. Siengchin, P. K. Karahaliou, S. N. Georga, C. A. Krontiras, J. Karger-Kocsis,  
Polymer International,  
vol. 60, (2011), p. 1715-1721.
- 38). Dielectric and functional properties of polymer matrix/ZnO/BaTiO<sub>3</sub> hybrid composites.  
G. Ioannou, A. Patsidis, **G. C. Psarras**,  
Composites Part A: applied science and manufacturing,  
vol. 42, (2011), p. 104-110.
- 37). Probing the dielectric response of polyurethane/alumina nanocomposites,  
A. Kalini, K. G. Gatos, P. K. Karahaliou, S. N. Georga, C. A. Krontiras,  
**G. C. Psarras**,  
Journal of Polymer Science:Part B: Polymer Physics,  
vol. 48, (2010), p. 2346-2354.
- 36). DC and AC conductivity in epoxy resin/multiwall carbon nanotubes percolative system.  
A. Vavouliotis, E. Fiamegou, P. Karapappas, **G. C. Psarras**,  
V. Kostopoulos,  
Polymer Composites,  
vol. 31, (2010), p. 1874-1880.
- 35). Probing the reverse martensitic transformation in constrained shape memory alloys via electrical resistance.  
G. Triantafyllou, **G. C. Psarras**,  
Journal of Intelligent Material Systems and Structures,  
vol. 21, (2010), p. 975-981.
- 34). POM/PU/Carbon nanofiber composites produced by water-mediated melt compounding: structure, thermo-mechanical and dielectrical properties.  
S. Siengchin, **G. C. Psarras**, J. Karger-Kocsis,  
Journal of Applied Polymer Science,  
vol. 117, (2010), p. 1804-1812.
- 33). Electrical response and functionality of polymer matrix-titanium carbide composites.  
C. G. Raptis, A. Patsidis, **G. C. Psarras**,  
Express Polymer Letters,  
vol. 4(4), (2010), p. 234-243.
- 32). Electrical properties of polymer matrix composites: current impact and future trends.  
**G. C. Psarras**,  
Express Polymer Letters,  
vol. 3(9), (2009), p. 533.

- 31). Conduction processes in percolative epoxy resin/silver particles composites.  
**G. C. Psarras**,  
Science of Advanced Materials,  
vol.1, (2009), p. 101-106.
- 30). Dielectric relaxation processes in epoxy resin – ZnO composites.  
A. Soulintzis, G. Kontos, P. Karahaliou, **G. C. Psarras**, S. N. Georga,  
C. A. Krontiras,  
Journal of Polymer Science:Part B: Polymer Physics,  
vol. 47, (2009), p. 445-454.
- 29). Some physicochemical aspects of nanoparticulate magnetic iron oxide colloids in neat water and in the presence of poly(vinyl alcohol).  
A. Bakandritsos, **G. C. Psarras**, N. Boukos,  
Langmuir,  
vol. 24(10), (2008), p. 11489-11496.
- 28). Dielectric behaviour and functionality of polymer matrix-ceramic BaTiO<sub>3</sub> composites.  
A. Patsidis, **G. C. Psarras**,  
Express Polymer Letters,  
vol. 2(10), (2008), p. 718-726.
- 27). Polyoxymethylene/Polyurethane/Alumina ternary composites: Structure, mechanical, thermal and dielectrical properties.  
S. Siengchin, J. Karger-Kocsis, **G. C. Psarras**, R. Thomann,  
Journal of Applied Polymer Science,  
vol. 110, (2008), p. 1613-1623.
- 26). Optical and dielectric properties of ZnO/PVA nanocomposites.  
N. Bouropoulos, **G. C. Psarras**, N. Moustakas, A. Chrissanthopoulos,  
S. Baskoutas,  
Physica Status Solidi A,  
vol. 205(8), (2008), p. 2033-2037.
- 25). Nanodielectrics: an emerging sector of polymer nanocomposites.  
**G. C. Psarras**,  
Express Polymer Letters,  
vol. 2(7), (2008), p. 460.
- 24). 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,  
Express Polymer Letters,  
vol. 1(12), (2007), p. 837-845.
- 23). Electrical relaxation dynamics in TiO<sub>2</sub>-polymer matrix composites.  
G. A. Kontos, A. L. Soulintzis, P. K. Karahaliou, **G. C. Psarras**,  
S. N. Georga, C. A. Krontiras, M. N. Pisanias,  
Express Polymer Letters,  
vol. 1(12), (2007), p. 781-789.

- 22). Charge transport properties in carbon black/polymer composites.  
**G. C. Psarras**,  
Journal of Polymer Science:Part B: Polymer Physics,  
vol. 45(18), (2007), p. 2535-2545.
- 21). Dielectric properties of layered silicate-reinforced natural and polyurethane rubber nanocomposites.  
**G. C. Psarras**, K. G. Gatos, J. Karger-Kocsis,  
Journal of Applied Polymer Science,  
vol. 106(2), (2007), p. 1405-1411.
- 20). Polyurethane latex/water dispersible boehmite alumina nanocomposites: thermal, mechanical and dielectric properties.  
K. G. Gatos, J. G. Martínez Alcázar, **G. C. Psarras**, J. Karger-Kocsis,  
Composites Science and Technology,  
vol. 76, (2007), p. 157-167.
- 19). Dielectric and conductivity processes in Poly(ethylene terephthalate) and Poly(ethylene naphthalate) homopolymers and copolymers.  
**G. C. Psarras**, A. Soto, G. A. Voyiatzis, P. Karahaliou, S. Georga,  
C. Krontiras, J. Sotiropoulos,  
Journal of Polymer Science:Part B: Polymer Physics,  
vol. 44, (2006), p. 3078-3092.
- 18). Hopping conductivity in polymer matrix – metal particles composites.  
**G. C. Psarras**,  
Composites Part A: applied science and manufacturing,  
vol. 37, (2006), p. 1545-1553.
- 17). Investigation of the phase transformation behaviour of constrained shape memory alloy wires.  
P. Petalis, N. Makris, **G. C. Psarras**,  
Journal of Thermal Analysis and Calorimetry,  
vol. 84(1), (2006), p. 219-224.
- 16). Determination of interface integrity in high volume fraction polymer composites at all strain levels.  
G. Anagnostopoulos, D. Bollas, J. Parthenios, **G. C. Psarras**, C. Galiotis,  
Acta Materialia,  
vol. 53, (2005), p. 647-657.
- 15). Dielectric dispersion and ac conductivity in –Iron particles loaded- polymer composites.  
**G. C. Psarras**, E. Manolakaki, G. M. Tsangaris,  
Composites Part A: applied science and manufacturing,  
vol. 34(12), (2003), p. 1187-1198
- 14). Stress and Temperature Self-Sensing Fibres.  
**G. C. Psarras**, J. Parthenios, D. Bollas, C. Galiotis,  
Chemical Physics Letters,  
vol. 367(3-4), (2003), p. 270-277.

- 13). Progress on Composites with Embedded Shape Memory Alloy wires.  
J. Schrooten, V. Michaud, J. Parthenios, **G. C. Psarras**, C. Galiotis,  
R. Gotthardt, J. A. Manson, J. Van Humbeeck,  
Materials Transactions JIM,  
vol. 43(5), (2002), p. 961-973.
- 12). 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,  
Engineering Fracture Mechanics,  
vol. 69(9), (2002), p. 1067-1087.
- 11). Electrical relaxations in polymeric particulate composites of epoxy resin  
and metal particles.  
**G. C. Psarras**, E. Manolakaki, G. M. Tsangaris  
Composites Part A: applied science and manufacturing,  
vol. 33, (2002), p. 375-384.
- 10). Adaptive Composites Incorporating Shape Memory Alloy Wires;  
Part 2: Development of internal recovery stresses as a function of  
activation temperature.  
J. Parthenios, **G. C. Psarras**, C. Galiotis,  
Composites Part A: applied science and manufacturing,  
vol. 32(12), (2001), p. 1735-1747.
- 9). Adaptive Composites Incorporating Shape Memory Alloy Wires; Part 1:  
Probing the internal stress and temperature distributions with a laser  
Raman sensor.  
**G. C. Psarras**, J. Parthenios, C. Galiotis,  
Journal of Materials Science,  
vol. 36, (2001), p. 535-546.
- 8). Composite coatings and their performance in corrosive environment.  
N. Kouloumbi, G. M. Tsangaris, S. T. Kyvelidis, **G. C. Psarras**,  
British Corrosion Journal,  
vol. 34(4), (1999), p. 267-272.
- 7). The dielectric response of a polymeric three-component  
composite.  
G. M. Tsangaris, **G. C. Psarras**,  
Journal of Materials Science,  
vol. 34, (1999), p. 2151-2157.
- 6). DC and AC conductivity in polymeric particulate composites of epoxy resin  
and metal particles.  
G. M. Tsangaris, **G. C. Psarras**, E. Manolakaki,  
Advanced Composites Letters,  
vol. 8(1), (1999), p. 25-29.
- 5). Electric modulus and interfacial polarization in compositepolymeric  
systems.  
G. M. Tsangaris, **G. C. Psarras**, N. Kouloumbi,  
Journal of Materials Science,  
vol. 33, (1998), p. 2027-2037.

- 4). Evaluation of the dielectric behaviour of particulate composites consisting of a polymeric matrix and a conductive filler.  
G. M. Tsangaris, **G. C. Psarras**, N. Kouloumbi,  
Materials Science and Technology,  
vol. 12, July 1996, p. 533-538.
- 3). Modelling the dielectric behaviour of composites of epoxy resin and Kevlar fibres. G. M. Tsangaris, **G. C. Psarras**, N. Kouloumbi,  
Advanced Composites Letters,  
vol. 4(6), (1995), p. 175-180
- 2). Permittivity and loss of composites of epoxy resin and kevlar fibres.  
G. M. Tsangaris and **G. C. Psarras**,  
Advanced Composites Letters,  
vol. 4(4), (1995), p. 125-128.
- 1). Dielectric permittivity and loss of an aluminum - filled epoxy resin.  
G. M. Tsangaris, **G. C. Psarras**, A. Kontopoulos,  
Journal of Non - Crystalline Solids,  
vol. 131-133, (1991), p. 1164-1168.

**b) Full Papers in Refereed Proceedings of International Conferences**

- 20). Dielectric, thermomechanical and functional behavior of epoxy resin-barium titanate and/or graphite nanoplatelets nanocomposites.  
A. C. Patsidis, K. Kalaitzidou, **G. C. Psarras**,  
15<sup>th</sup> European Conference on Composite Materials,  
ECCM15, 24-28 June 2012, Venice, Italy,  
Proceedings of the Conference in electronic form.
- 19). Disorder to order transition and functionality in polymer matrix – barium titanate nanocomposites.  
A. C. Patsidis, **G. C. Psarras**,  
5<sup>th</sup> International Conference on Emerging Technologies in Non-Destructive Testing, ETNCT5,  
September 19-21 2011, Ioannina, Greece,  
Proceedings of the Conference in electronic form.
- 18). Dielectric behavior and thermomechanical performance of BaTiO<sub>3</sub> reinforced and carbon reinforced epoxy composites.  
A. C. Patsidis, **G. C. Psarras**, K. Kalaitzidou,  
18<sup>th</sup> International Conference on Composite Materials, ICCM18,  
21-26 August 2011, Jeju, Korea.  
Proceedings of the Conference in electronic form.
- 17). Dielectric behavior and thermomechanical performance of BaTiO<sub>3</sub>-epoxy composites.  
A. C. Patsidis, **G. C. Psarras**, K. Kalaitzidou,  
Society for Plastics Engineers, ANTEC 2011,  
May 1-5 2011, Boston, Massachusetts, USA,  
Proceedings of the Conference p. 511-514.

- 16). Relaxation phenomena and dynamics in polyoxymethylene/polyurethane/alumina hybrid nanocomposites. S. Siengchin, P. K. Karahaliou, S. N. Georga, C. A. Krontiras, J. Karger-Kocsis, **G. C. Psarras**, 14<sup>th</sup> European Conference on Composite Materials, ECCM14, 7-10 June 2010, Budapest, Hungary, Proceedings of the Conference in electronic form.
- 15). Dielectric and functional properties of polymer matrix/ZnO/BaTiO<sub>3</sub> hybrid composites, G. Ioannou, A. Patsidis, **G. C. Psarras**, 14<sup>th</sup> European Conference on Composite Materials, ECCM14, 7-10 June 2010, Budapest, Hungary, Proceedings of the Conference in electronic form.
- 14). Dielectric properties of polymer matrix-ceramic BaTiO<sub>3</sub> composites. A. Patsidis, **G. C. Psarras**, International Conference on Structural Analysis of Advanced Materials, ICSAM-2007, September 2-6, 2007, Patras, Greece Proceedings of the Conference in CD-ROM.
- 13). Probing the reverse martensitic transformation in constrained shape memory alloys via the variations of electrical resistance. G. Triantafyllou, **G. C. Psarras**, International Conference on Structural Analysis of Advanced Materials, ICSAM-2007, September 2-6, 2007, Patras, Greece Proceedings of the Conference in CD-ROM.
- 12). Electrical relaxation phenomena in TiO<sub>2</sub>-polymer matrix composites. G. A. Kontos, A. L. Soulintzis, S. N. Georga, J. Sotiropoulos, C. A. Krontiras, P. K. Karahaliou, **G. C. Psarras**, 6<sup>th</sup> International Symposium on Advanced Composites (COMP 2007), 16-18 May, 2007, Corfu, Greece, Proceedings of the Conference in CD-ROM (COMP2007-048).
- 11). Thermoelastic response of epoxy resin-aramid fibres composites incorporating shape memory alloy wires. N. Makris, P. Petalis, N.-M. Barkoula, **G. C. Psarras**, 7<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2005), 2-6 July, Thessaloniki, Greece, 2005, Proceedings of the Conference p. 390-394.
- 10). Investigation of the phase transformation behaviour of constrained shape memory alloy wires. P. Petalis, N. Makris, **G. C. Psarras**, 7<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2005), 2-6 July, Thessaloniki, Greece, 2005, Proceedings of the Conference p. 321-326.

- 9). Hopping conductivity in –polymer matrix-granular metal composites.  
**G. C. Psarras**,  
11<sup>th</sup> European Conference on Composite Materials (ECCM-11),  
May 31 – June 3, 2004, Rhodes, Greece,  
Proceedings of the Conference in CD-ROM.
- 8). Investigation of stress transfer mechanisms in fibre reinforced composites under tension and compression.  
G. Anagnostopoulos, C. Koimtzoglou, D. Bollas, S. Goutianos,  
J. Parthenios, **G. C. Psarras**, C. Galiotis,  
5<sup>th</sup> International Symposium on Advanced Composites,  
Comp '03: Advances in composite technology,  
Corfu, Imperial Hotel, Corfu, Greece, 5-7 May 2003,  
Proceedings of the Conference in CD-ROM.
- 7). Investigation of the Morphing Capability of Composites using Raman Spectroscopy.  
D. Bollas, J. Parthenios, **G. C. Psarras**, C. Galiotis,  
5<sup>th</sup> International Symposium on Advanced Composites,  
5-7 May 2003, Corfu, Greece,  
Proceedings of the Conference in CD-ROM.
- 6). A new approach for assessing the interface efficiency on standard full-composites specimens.  
D. Bollas, C. Koimtzoglou, G. Anagnostopoulos, **G.C. Psarras**,  
J. Parthenios, C. Galiotis,  
European Society for Composite Materials, ECCM 10,  
June 3-7, 2002, Bruges, Belgium,  
Proceedings of the Conference in CD-ROM.
- 5). Internal stress generation in composites incorporating prestrained Shape Memory Alloy Wires.  
**G. C. Psarras**, J. Parthenios, D. Bollas, C. Galiotis,  
European Society for Composite Materials, ECCM 10,  
June 3-7, 2002, Bruges, Belgium,  
Proceedings of the Conference in CD-ROM.
- 4). Electric Modulus and dielectric relaxations in polymeric particulate composites of epoxy resin and metal particles.  
G. M. Tsangaris, **G. C. Psarras**, E. Manolakaki, I. Korinthiou,  
2<sup>nd</sup> International Conference on Dielectrics and Insulations, Dep. of High Voltage Engineering and Informatics, Technical University of Kosice and The Institute of Electrical Engineers (IEE),  
June 13-15, 2000, Stara Lesna, High Tatras, Slovakia,  
Proceedings of the Conference p. 34-39.
- 3). Mechanical response of intelligent composite systems activated by Shape Memory Alloys wires.  
**G. C. Psarras**, J. Parthenios, C. Galiotis,  
European Society for Composite Materials, ECCM 9,  
June 4-7, 2000, Brighton Conference Centre, UK,  
Proceedings of the Conference in CD-ROM.

- 2). Permittivity and conductivity in polymeric particulate composites of epoxy resin and metal powders.  
G. M. Tsangaris, N. Kouloumbi, **G. C. Psarras**, S. Kyvelides, E. Manolakaki,  
International Conference on Dielectrics and Insulations, Technical University of Budapest and the Institution of Electrical Engineers (I.E.E.), September 10-13, 1997, Budapest, Hungary, Proceedings of the Conference p. 101-104.
- 1). Conductivity and percolation in polymeric particulate composites of epoxy resin and conductive fillers.  
G. M. Tsangaris, N. Kouloumbi, **G. C. Psarras** and E. Manolakaki, G. Ponticopoulos, D. Tsekouras,  
7th International Conference on Dielectric Materials, Measurements and Applications, The Institution of Electrical Engineers, 23-26 September 1996, University of Bath, U. K., Conference Publication No. 430, p. 100-103.

***c) Extended Abstracts in Proceedings of International Conferences***

- 34). Barium Titanate Nano- and/or Micro- Polymer Composites: Development, Characterization, and Energy Storage  
A. C. Patsidis, A. Kanapitsas, C. Tsonos, **G. C. Psarras**,  
9<sup>th</sup> 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**,  
9<sup>th</sup> 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**,  
9<sup>th</sup> 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**,  
2<sup>nd</sup> 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 5<sup>th</sup> 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 5<sup>th</sup> 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,  
7<sup>th</sup> 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**,  
7<sup>th</sup> 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**,  
1<sup>st</sup> 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**,  
1<sup>st</sup> International Congress on Materials and Renewable Energy,  
1-3 July 2013, Athens, Greece, University of Bolton.

- 22). Influence of the TiO<sub>2</sub> 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,  
1<sup>st</sup> International Congress on Materials and Renewable Energy,  
1-3 July 2013, Athens, Greece, University of Bolton.
- 21). Electrical relaxation phenomena in TiO<sub>2</sub>-polymer matrix nanocomposites.  
G. N. Tomara, A. P. Kerasidou, P. K. Karahaliou, **G. C. Psarras**,  
S. N. Georga, C. A. Krontiras,  
4<sup>th</sup> 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**,  
11<sup>th</sup> 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**,  
11<sup>th</sup> Mediterranean Conference on Calorimetry and Thermal Analysis (MEDICTA 2013), 12-15 June 2013, Athens, Greece.
- 18). Hybrid nanocomposites of ZnTiO<sub>3</sub>/BaTiO<sub>3</sub>/ epoxy resin: functionality, dielectric and thermal properties.  
E. I. Koufakis, A. C. Patsidis, **G. C. Psarras**,  
11<sup>th</sup> 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,  
9<sup>th</sup> 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-TiO<sub>2</sub> composites.  
C. Tsonos, A. Kanapitsas, H. Zois, **G. C. Psarras**,  
10<sup>th</sup> 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,  
7<sup>th</sup> 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 – TiO<sub>2</sub> composites  
G. Kontos, A. Soulintzis, P. K. Karahaliou, **G. C. Psarras**, S. N. Georga,  
C. A. Krontiras, M. N. Pisanias.  
3<sup>rd</sup> 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.  
3<sup>rd</sup> 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 27<sup>th</sup>-June 1<sup>st</sup>, 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,  
15<sup>th</sup> 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). Composite Materials,  
C. Galiotis, D. Mouzakis, **G. C. Psarras**,  
University of Patras,  
Patras, Greece, 2003  
p. 180.
- 4). Smart Materials,  
**G. C. Psarras**,  
University of Patras,  
Patras, Greece, 2004  
p. 135.
- 5). Materials Science and Engineering an Introduction.  
W. D. Callister Jr., 5<sup>th</sup> Edition, John Wiley and Sons Inc., 2000.  
Translation in Greek, S. Baskoutas, S. Bogiatzis, E. Drakopoulou, C. Galiotis, E. Meletis, C. Pliangos, **G. C. Psarras**, V. Tangoulis, A. Vanakaras  
Copyright © for the Greek language Tziollas publishing co, 2004.  
Translation of chapters 6 (Mechanical Properties of Metals), 8 (Failure), and 19 (Electrical Properties).
- 6). Materials: Engineering, Science, Processing and Design.  
M. Ashby, H. Shercliff, D. Cebon, 2<sup>nd</sup> Edition, Elsevier Limited, Oxford, 2010. Translation in Greek, scientific editing, **G. C. Psarras**.  
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**(f) 62 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 "10<sup>th</sup> 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.

## Teaching Activities:

### *Graduate courses:*

2004-2014: "Methods of Materials Characterization I", "Methods of Materials Characterization II", "Composite Materials", in the master's degree program of *Materials Science*, University of Patras.

2010-2014: "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.

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:*

2000-2014: "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.

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*

- "Hybrid nanodielectrics of polymer matrix / functional composites: Development, Characterization and Functionality". A. C. Patsidis, PhD Thesis, Polymer Science and Technology Interdepartmental Program, University of Patras, Patras, Greece, in progress.
- "Elastomeric materials of high technological interest: Development, characterization, and functional behaviour". G. A. Sofos, PhD Thesis, Department of Materials Science, University of Patras, Patras, Greece, in progress.
- "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, in progress.

### *MSc supervision*

- "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.
- "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.
- "Epoxy resin/BaTiO<sub>3</sub> nanodielectrics: development, electrical response and functionality" A. C. Patsidis, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, April 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.
- "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.
- 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.
- Zinc oxide/titanium carbide/polymer matrix: development, characterization and functional, behavior, G. Mathioudakis, MSc Thesis, Polymer Science and Technology Interdepartmental Programme, University of Patras, Patras, Greece, March 2013.
- 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.

#### *Diploma thesis supervision*

Supervision of 43 diploma theses of undergraduate students, which resulted in 6 papers in refereed journals and 18 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-today).
- 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).