CURRICULUM VITAE

Christos A. Tsonos

Position:	Professor, Department of Physics, University of
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Education:

1989:	Degree in Physics, Aristotle University of Thessaloniki,
	Greece
1993:	Post graduate courses in Physics, N.C.S.R. DEMOKRITOS,
	Greece
1998:	PhD, Physics Department, National Technical University of
	Athens, Greece

Professional experience:

9/2019-today	Professor, Department of Physics, University of
	Thessaly, Greece
2/2019-9/2019	Professor, General Department of Lamia, University of
	Thessaly, Greece
2005-2019	Academic staff at the former Technological Education
	Institute of Lamia and former Technological Education
	Institute of Sterea Ellada, Greece
2000-2005	Research Fellow, former Technological Education
	Institute of Lamia, Greece
1998-2000	Research associate, Department of Physics &
	Department of Primary Education, Aristotle University
	of Thessaloniki
1992-1998	Research associate, Physics Department, National
	Technical University of Athens, Greece

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Field of research:

The research interests include:

- Electrical and dielectric characterization of technological materials: ionic liquids, nanocomposite polymeric materials, multifunctional polymeric materials, composite polymeric materials, materials of micro-nanoelectronics, semiconductor materials and devices, ceramic materials, insulating materials, polymer electrolytes.
- Investigation of the relationship between structure and properties of materials using a variety of experimental techniques: electrical-dielectric, thermal, mechanical and morphological.
- Energy harvesting and storage in polymeric nanosystems and nanostructured systems.
- Study of the conductivity of polymeric systems.
- Study of Weyl and Dirac particles interaction with electromagnetic fields.
- Development of complex polymeric systems for electromagnetic shielding.

Academic Appointments:

- Head of Electronics Engineering Department, TEI of Sterea Ellada (2013-2014 and 2016-2018)
- Director of the Electronics Section and member at the Council of the Electronics Department, Technological Education Institute of Lamia (2006-2011)

Participation in National and European Research Projects:

Participation in 10 National and European Research Projects

Publications:

>100 publications in refereed journals and conferences

Additional Activities:

- Member in Administrative Council at Hellenic NARIC (2018-2019)
- Departmental academic coordinator of Erasmus Program of the former TEI of Lamia (2010-2014)
- Examiner at National Institution for Scholarships (IKY) for scholarships to postgraduate students studying at foreign Universities in the subjects areas: Electronics (2008-2012)
- Teaching postgraduate courses in University of Thessaly (2022), Aristotle University of Thessaloniki (1999-2000), University of West Attica (2017-2021), International Hellenic University (2018-2020), member of the supervising team for MSc students participating a joint program of TEI of Athens and Brunel University of West London (2009)

Scientific Publications in Journals (over the last 4 years)

- C. Tsonos, "Exploring the High Frequencies AC Conductivity Response in Disordered Materials by Using the Damped Harmonic Oscillator", Journal of Composites Science, 6(7), 200 (2022).
- S. Kripotou, G. Tsonos, A. Mezzetta, A. Mero, L. Guazzelli, K. Moutzouris, I. Stavrakas, C. Tsonos, "Dielectric Study of Tetraalkylammonium and Tetraalkylphosphonium Levulinate Ionic Liquids", International Journal of Molecular Sciences, 23, 5642 (2022).
- **3.** G. Tsigaridas, A. Kechriniotis, C. Tsonos, K. Delibasis, "Degenerate solutions to the massless Dirac and Weyl equations and a proposed method for controlling the quantum state of Weyl particles", Chinese Journal of Physics, 77, 2324-2332 (2022).

- **4.** Panagiotis Photopoulos, Christos Tsonos, Ilias Stavrakas, Dimos Triantis, '*A method for the calculation the activation energies of thermally stimulated depolarization current peaks: Application in polyvinylidene fluoride/graphene nanocomposites''*, Physica B: Physics of Condensed Matter, 622, 413338 (2021).
- **5.** G. Tsigaridas, A. Kechriniotis, C. Tsonos, K. Delibasis, "Degenerate solutions to the Dirac equation for massive particles and their applications in quantum tunneling", Physica Scripta, 96 (6), 065507 (2021).
- 6. Zidong Yu, Han Yang, Navneet Soin, Liming Chen, Nathan Black, Ke Xu,Preetam Kumar Sharma, Christos Tsonos, Amit Kumar, Jikui Luo, *"BismuthOxyhalide based Photo-enhanced Triboelectric Nanogenerators"*, Nano Energy, 89, 106419 (2021).
- Pengfei Zhao, Gourav Bhattacharya, Sam J. Fishlock, Joseph G. M. Guy, Amit Kumar, Christos Tsonos, Zidong Yu, Shasidran Raj, James A. McLaughlin, Jikui Luo, Navneet Soin, ''Replacing the Metal Electrodes in Triboelectric Nanogenerators: High-Performance Laser-Induced Graphene Electrode'', Nano Energy, 75, 104958 (2020).
- 8. A. Kechriniotis, C. Tsonos, K. Delibasis, G. Tsigaridas, "On the connection between the solutions to the Dirac and Weyl equations and the corresponding electromagnetic 4-potentials", Communications in Theoretical Physics, 72, 045201 (2020).
- 9. Pengfei Zhao, Navneet Soin, Amit Kumar, Lin Shi, Shaoliang Guan, Christos Tsonos, Zidong Yu, Sekhar C Ray, James McLaughlin, Zhigang Zhu, Erping Zhou, Junfeng Geng, Chan H See, Jikui Luo, "Expanding the portfolio of tribo-

positive materials: aniline formaldehyde condensates for high charge density triboelectric nanogenerators'', Nano Energy, 67, 104291 (2020).

- **10.** C. Tsonos, "Comments on frequency dependent AC conductivity in polymeric materials at low frequency regime", Current Applied Physics, 19, 491–497 (2019).
- 11. C. Tsonos, H. Zois, A. Kanapitsas, N. Soin, E. Siores, G.D. Peppas, E.C. Pyrgioti, A. Sanida, S.G. Stavropoulos, G.C. Psarras, "Polyvinylidene fluoride/magnetite nanocomposites: Dielectric and thermal response", Journal of Physics and Chemistry of Solids, 129, 378-386 (2019).