

## CURRICULUM VITAE

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### Education

Ph.D. in Physics, The Victorian University of Manchester, UK (1983).

M.Sc. in Physics, The Victorian University of Manchester, UK (1980).

Diploma in Physics, National and Kapodistrian University of Athens (1978).

### Research and teaching appointments

2004 - : Director of Research, TPCI, NHRF, Athens, Greece.

1999-2004: Senior Researcher, TPCI, NHRF, Athens, Greece.

1991-1999: Associate Researcher, TPCI, NHRF, Athens, Greece.

1984-1991: Assistant Researcher, TPCI, NHRF, Athens, Greece.

2015-2020: Visiting Professor at Kazan Federal University, Physics Department, Kazan, Russia.

2005-2010: Visiting Professor at the post graduate school of Josef Stefan Institute, Ljubljana, Slovenia.

1992: Visiting Professor at Oxford University, Physics Department, Clarendon Laboratory UK.

## Current research interests

- Quantum and coherent effects at the nanoscale. Molecular engines.
- Complexity, hierarchy and chaos in bio and small systems.
- Nanothermodynamics.
- Laser Physics and technology and interaction of radiation with atoms and molecules.

## External funding

Scientific coordinator of 16 European and 4 National research projects.

## Conferences and invited talks

Participating at 198 international conferences, 51 invited talks.

## Honors and awards

Greek Scholarship Foundation (1973); Greek Scholarship Foundation (1980-1983); NATO scholarship (1978-1979); NATO Summer Schools (1982, 1984, 1987); Royal Society (1986 University of Edinburgh and 1997 University of Liverpool); EU scholarship for access at large scale installations (1996); National expert at the European Commission (2004-2006); National representative of Greece at the European Commission (2006-2010); the article "Surface profile gradient in amorphous Ta<sub>2</sub>O<sub>5</sub> semi conductive layers regulates nanoscale electric current stability." picked up as "a significance statement in physics for the year 2017" by "[Advances in Engineering](#)"; 51 invited talks at international conferences; member of international conference committees; invited professor at 5 institutions and universities; invitations to present and analyze scientific topics with social impact at Greek and Cypriot Houses of Parliament and the European Commission; More than 300 scientific, technological, ecological and political articles in various Greek newspapers and national and international journals.

## Teaching activities

The Victorian University of Manchester, UK (1980-1983).

Postgraduate School of Josef Stefan Institute, Slovenia (2005-2010) and University of Oxford (1992). Postgraduate program of Department of Biology, National Kapodistrian University of Athens. National Technical University of Athens, Department of Chemical Engineering. Teaching activities within the framework of educational European and National Projects. Supervision for 8 post-graduate students (5 Ph.D. and 3 Master Thesis), 6 honor theses.

## Professional affiliations & activities

Greek National Expert at the Program Committee for Nanotechnology in European Union (2004-2007).

National Representative of Greece at the NMP-FP7, Nanotechnology, Materials, Processing (2007-2010 ).

Reviewer for several international scientific journals.

Evaluator of Research Projects in various European Commission panels and governmental bodies.

## Publications

168 publications, 33 publications in refereed conference proceedings, 5 chapters in books. More than 1740 citations, h-index: 25 and h-index-10: 54 (Google Scholar, 9/2021).

## Selected recent publications

A.C. Cefalas, V. Gavriil, A. Ferraro, Z. Kollia, E. Sarantopoulou, "[Dynamics and Physics of Integrin Activation in Tumor Cells by Nano-Sized Extracellular Ligands and Electromagnetic Fields](#)", *The Integrin Interactome, Methods and Protocols. Methods in molecular biology, Springer Nature* **2021**, 2217, 197.

[DOI:10.1007.978-1-0716-0962-0](https://doi.org/10.1007.978-1-0716-0962-0)

E. Bakalis, V. Gavriil, A.C. Cefalas, Z. Kollia, F. Zerbetto, E. Sarantopoulou, "Viscoelasticity and noise properties reveal the formation of biomemory in cells", *JPC B* **2021**, *125*, 10883.

[DOI: /10.1021/acs.jpcc.1c01752](https://doi.org/10.1021/acs.jpcc.1c01752)

A.D. Velentzas, P.D. Velentzas, S.A. Katarachia, A.K. Anagnostopoulos, N.E. Sagioglou, E.V. Thanou, M.M. Tsioka, V.E. Mpakou, Z. Kollia, V.E. Gavriil, I.S. Papassideri, G.T. Tsangaris, A.C. Cefalas, E. Sarantopoulou, D.J. Stravopodis, "The indispensable contribution of s38 protein to ovarian-eggshell morphogenesis in *Drosophila melanogaster*.", *Sci. Rep.* **2018**, *8*, 16103.

[DOI: 10.1038.s41598-018-34532-2](https://doi.org/10.1038/s41598-018-34532-2)

A.C. Cefalas, Z. Kollia, N. Spyropoulos-Antonakakis, V. Gavriil, D. Christofilos, G. Kourouklis, V.V. Shemashko, V. Pavlov, E. Sarantopoulou, "Surface profile gradient in amorphous Ta<sub>2</sub>O<sub>5</sub> semi conductive layers regulates nanoscale electric current stability.", *Appl. Surf. Sci.* **2017**, *396*, 1000.

[DOI: 10.1016.j.apsusc.2016.11.076](https://doi.org/10.1016/j.apsusc.2016.11.076)

A.D. Velentzas, P.D. Velentzas, N.E. Sagioglou, E.G. Konstantakou, A.K. Anagnostopoulos, M.M. Tsioka, V.E. Mpakou, Z. Kollia, C. Consoulas, L.H. Margaritis, I.S. Papassideri, G.Th. Tsangaris, E. Sarantopoulou, A.C. Cefalas, D. J. Stravopodis. "Targeted Downregulation of s36 Protein Unearths its Cardinal Role in Chorion Biogenesis and Architecture during *Drosophila melanogaster* Oogenesis.", *Sci. Rep.* **2016**, *6*, 35511.

[DOI: 10.1038.srep35511](https://doi.org/10.1038.srep35511)