





CONTACT INFORMATION

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EDUCATION

- 2010 - 2015 Ph.D., [Department of Materials Science and Technology, University of Crete, Greece](#)
Thesis Title: “Hydrogen in Carbon-Based Nanostructured Materials
– Theoretical and Computational Study”
Supervisor: Associate Professor G. Kopidakis,
- 2004 - 2007 Interdisciplinary (Medicine, Physics, Mathematics) M.Sc. - “Optics & Vision”,
[Department of Medicine, University of Crete, Greece](#)
Advanced education in optics, computational mathematics, biostatistics and the physiology
of the human eye
Thesis Title: “Wavefront Analysis and Reconstruction with Applications in Various Human
Eye Models”
Supervisor: Assistant Professor D. Papazoglou
- Spring 2002 Erasmus visiting student,
[Department of Physics, Norwegian University of Science and Technology](#)
- 1999 - 2004 B.Sc.Ed. In Physics, [Department of Physics, University of Crete, Greece](#)
Specialization in Computational Physics
Thesis Title: “Quantum Cryptography - BB84 Demonstration”
Supervisor: Professor P. Lambropoulos

WORK EXPERIENCE

- 09.2015-08.2016 Research Associate in “GRAPHENE - Graphene Based Revolutions in ICT and Beyond”
Scientific Coordinator: Assoc. Prof. M. Kafesaki
- 04.2014-02.2015 Research Assistant in “ARISTEIA II - NILES” program
Modeling and simulation of new designs of III-V nanowire heterostructures
Scientific Coordinator: Prof. N. Pelekanos
- 2011 - 2012 Teaching Assistant in “Introduction to Electrodynamics”
Department of Materials Science and Technology, University of Crete
- 2009 - 2011 Teaching Assistant in Laboratories of “Optics and Electricity”
Department of Materials Science and Technology, University of Crete
- 2009 - 2010 Teaching Assistant in Laboratories of “Classical Mechanics”
Department of Materials Science and Technology, University of Crete
- 2008 - 2009 Unified Upper Secondary School Teacher in Physics
Directory of Secondary Education, Monofatsiou 8, 71201 Heraklion, Crete
- 2008 Physicist - Environmentalist
Prefecture of Heraklion - Directory of Environment, Markou Mousourou 15, 71201 Heraklion, Crete
Participation in the expression of the Department’s opinion concerning projects and activities that fall within the
competence of the Directory of Environment and in the investigation of environmental legislation violations in
the area and the proposal of penalties for parties responsible
- 2002 - 2003 Teaching assistant in Computers I, II
Department of Physics, University of Crete

SCHOLARSHIPS

2010-2013	Greek Ministry of Education & European Social Fund PhD scholarship, including travel and consumables, HERACLITUS II
2002	State Scholarship Foundation (IKY) Scholarship for participating in the SOCRATES-ERASMUS program Norwegian University of Science and Technology, Trondheim, Norway

SKILLS

Languages

Greek	Native speaker
English	Teaching permit, Greek Ministry of Education Certificate of Proficiency in English, Michigan University, (Level C2 of CEFR)

Organizing

Participation in organizing the “Metal nanoparticles for advanced materials: From theory to practice” meeting, Heraklion, Greece, 2012

Computer Skills

Programming	C, Python, C++, Java, Unix bash-shell scripting, Fortran, Pascal
Software Packages	VASP, GPAW, LAMMPS, Dacapo, L ^A T _E X, MS Office, Open Office, Mathematica, Optica, AutoCAD, Matlab
Operating Systems	Linux, Microsoft Windows

RESEARCH INTERESTS

- Molecular dynamics simulations with empirical potentials for the study of structural, vibrational and mechanical properties of amorphous and nanostructured materials
- Implementation of an empirical potential for hydrocarbons
- First principle, quantum mechanical simulations, using DFT, for the study of structural, mechanical and electronic properties of nanomaterials

PUBLICATIONS

- A.E. Maniadaki, G. Kopidakis, I.N. Remediakis, *Strain Engineering of Electronic Properties of Transition Metal Dichalcogenide Monolayers*, Solid State Communications, 227, 33-39, (2016) doi:10.1016/j.ssc.2015.11.017
- A.E. Maniadaki, G. Kopidakis, *Hydrogen on Hybrid MoS₂/Graphene Nanostructures*, physica status solidi (RRL) - Rapid Research Letters doi:10.1002/pssr.201600060
- A.E. Maniadaki, G. Kopidakis, *Vibrational Properties of Pure and Hydrogenated Amorphous Carbon - Diamond Nanocomposites*, in preparation

CONFERENCES/WORKSHOPS/SUMMER SCHOOLS

- “Theoretical study on hydrogen evolution edge-site activity of MoS₂ and hybrid MoS₂/Graphene structures” A. E. Maniadaki, G. Kopidakis, 31th Panhellenic Conference on Solid-State Physics and Materials Science, Thessaloniki (September 2015) (Oral Presentation)
- “Electronic Properties Engineering of Molybdenum Sulfide: Strained Monolayers and Nanoribbons”, G. Kopidakis, D. Davelou, A. E. Maniadaki, G. Kioseoglou, I. N. Remediakis, MRS Fall Meeting 2014, Boston, Massachusetts (Fall 2014) (Oral Presentation)
- “Electronic Properties Engineering of TMDs: Strained Monolayers and Nanoribbons”, A. E. Maniadaki, D. Davelou, G. Kioseoglou, I. N. Remediakis, G. Kopidakis, 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, Crete (September 2014) (Oral Presentation)

- “Computational Approach For The Characterization Of Carbon Nanostructures”, *A. E. Maniadaki & G. Kopidakis*, [International Symposium on Advanced Nanoporous and Nanostructured Materials](#), Heraklion, Crete (September 2014), (Poster Presentation & Oral Presentation at the “Theoretical Satellite Event”)
- “Workshop on Advanced Techniques for Scientific Programming and Management of Open Source Software Packages”, [International Center for Theoretical Physics](#), Trieste, Italy (March 2014)
- “Dimensionality-dependent Electronic and Optical Properties of MoS₂”, *G. Kopidakis, D. Davelou, A. E. Maniadaki, G. Kioseoglou, I. N. Remediakis*, [APS March Meeting 2014](#), Denver, Colorado, (March 2014) (Oral Presentation)
- “Computational Study of Carbon-based Nanostructured Materials”, *A. E. Maniadaki & G. Kopidakis*, [Metal nanoparticles for advanced materials: From theory to practice](#), Heraklion, Crete, (Oct. 2012) (Poster presentation)
- “Computational Study of Carbon-based Nanostructured Materials”, *A. E. Maniadaki & G. Kopidakis*, [XI International Conference on Nanostructured Materials](#), Rhodes, (Aug. 2012) (Poster presentation)
- “Computational Study of Carbon-based Nanostructured Materials”, *A. E. Maniadaki & G. Kopidakis*, [International Conference on Advanced Materials Modeling](#), Institute of Materials Jean Rouxel, CNRS/University of Nantes, (Jun. 2012), (Short oral presentation and poster presentation)
- VASP Workshop, [Institute of Materials Jean Rouxel, CNRS/University of Nantes](#) (Jun. 2012)
- Nanowires Workshop, [Institute of Electronic Structure and Laser - Foundation for Research and Technology](#), Heraklion, Crete (Sep. 2010)
- Summer School in “Electronic Structure Theory and Materials Design”, [Center of Atomic-scale Materials Design, Department of Physics, Technical University of Denmark](#) (Aug. 2010)
- 5th Aegean Summer School In Visual Optics, [Department of Medicine, University of Crete](#), Rethymno, Crete (Jul. 2006)
- Summer School in Advanced Physics; circle: “Computational Physics”, [Department of Physics, University of Crete](#), Heraklion, Crete (Jul. 2005)
- 4th Aegean Summer School In Visual Optics, [Department of Medicine, University of Crete](#), Heraklion, Crete (Jun. 2005)
- Summer School in Advanced Physics, [Department of Physics, University of Crete](#), Heraklion, Crete (Jul. 2004)