

## Curriculum Vitae

### PERSONAL INFORMATION

**SURNAME:** ROGDAKIS  
**NAME:** KONSTANTINOS  
**DATE OF BIRTH:** 18/12/1982  
**PLACE OF RESIDENCE:** HERAKLION  
**MARITAL STATUS:** MARRIED, 2 CHILDREN  
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### CURRENT ACADEMIC POSITION

- Assistant Professor in Nanoelectronics, Electrical and Computer Engineering Department of the Hellenic Mediterranean University (HMU)
- Affiliated Researcher at i-EMERGE Institute of HMU Research Center (HMU-RC), Greece

### MAIN RESEARCH INTERESTS

- SiC and Si nanowire field effect transistors
- Perovskite oxide nanoelectronics
- Single spin quantum-bits
- Superconductive spintronics
- Neuromorphic devices and computation
- Emerging printed electronics based on 2d materials (photovoltaics, sensors, transistors)

### RESEARCH EXPERIENCE

<b>07.2018-06.2024</b>	<b>Research Scientist</b> Sustainable printed opto-electronic devices, Nanomaterials for Emerging Devices, Hellenic Mediterranean University (HMU), Greece
<b>03.2017 - 06.2018</b>	<b>Research Associate</b> Superconductive spintronics London Centre for Nanotechnology – Univ. College of London (UCL), UK
<b>07.2016 – 02.2017</b>	<b>Research Associate</b> European Proposal writing/submission on tunnel FETs Microelectronics Research Group - FORTH, Greece
<b>07.2013 – 06.2015</b>	<b>Research Associate</b> Single spin quantum-bits in GaAs heterostructures Neel Institute, CNRS, Grenoble, France
<b>01.2010 – 06.2013</b>	<b>Post-doctoral research Associate</b> Perovskites oxide nanoelectronics Electron Complexity Laboratory - FORTH, Greece

### EDUCATION

<b>10.2006 - 10.2009</b>	Ph.D in Nanoelectronics /Grenoble Institute of Technology (GIT), France in co-supervision with University of Crete (UoC), Greece <a href="#">PhD thesis manuscript</a>
<b>09.2005 - 09.2006</b>	Master in Microsystems & Nanodevices - National Technical University of Athens (NTUA), Greece / GPA 8.78/10 ( <u>ranked 1<sup>st</sup> among 25</u> )
<b>09.2000 - 09.2005</b>	Diploma (BSc+MSc) in Applied Mathematics and Physics (10 semesters study) – NTUA, Greece; GPA 7.70/10 (ranking at the top 7% of his class)

## RESEARCH VISITING

3/2008 Visit in Prof. S. K. Lee group, Nano Sensor and Device Lab (NSDL), Jeonju, S. Korea  
5/2010 Visit in Prof. S. K. Lee group, NSDL, Jeonju, S. Korea  
4/2011 Visit in Dr K. Kiefer group, Helmholtz Zentrum Berlin, Germany  
10/2017 Visit in ISIS center, Oxford, UK  
06/2022 Visit in UNINOVA university, Lisbon, Portugal  
10/2022 Visit in ICN2 research center, Barcelona, Spain  
03/2023 Visit in Graphene research Center, Cambridge, UK  
03/2023 Visit in Imperial College of London, London, UK  
02/2024 Visit in INAM UJI lab, Castellon, Spain  
05/2024 Visit in UNINOVA, Lisbon, Portugal  
08/2025 Visit in UNINOVA, Lisbon, Portugal

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## RESEARCH PROPOSAL SUBMISSION & CONSORTIUM MANAGEMENT

Dr. Rogdakis possesses extensive expertise in securing and managing competitive European and National grants. His track record includes over **30 proposal submissions**, resulting in **10 successful grants** and securing a total budget of **>€5.6 million** for HMU (2020–2027). Beyond writing, he specializes in building and coordinating large-scale consortia. Notably, he served as Scientific Admin for the Graphene Flagship (WP11, Core 3) on energy conversion (2018–2023).

As a lead author, he secured the **€6.2M EMERGE** project (Emerging Printed Electronics Infrastructure), where he leads the Technical Liaison Office. He also co-authored the **€15M INFRACHIP** infrastructure project (securing ~€1.5M for HMU) and serves as Deputy Leader of its Interface Office. His success with EIC funding includes authoring the funded EIC Pathfinder projects HOLISTIC and HYPERSONIC (securing €430k and €540k for HMU, respectively) and the ELEGANCE project under the 'Responsible Electronics' challenge (€6.3M total), where he leads Working Group 1 of the Retronics Portfolio. He is also an active proposal evaluator for the RISEENERGY infrastructure project.

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## REVIEWER IN INTERNATIONAL SCIENTIFIC JOURNALS

He has acted as a reviewer for the following journals:

- Nature Electronics, Chemistry Society Reviews, Advanced Functional Materials, Nanoenergy (Elsevier), ACS Advanced Electronic Materials, The Journal of Physical Chemistry Letters (ACS), IEEE Trans. Elec. Devices / Nanotechnology / Electron Dev. Letters, Journal of Physics D (IOP), Nanotechnology (IOP), Physica B & E, Microelectronics Engineering, Applied Surface Science & Applied Physics A, Journal of Material Chemistry A&C, Materials Advances, Nanoscale (ACS), Nanomaterials (MDPI), Buildings, Micromachines, Optoelectronics (MDPI), BMC Materials.
- Reviewer Editor in Frontiers: Condensed matter and Photonics.

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## PUBLICATIONS IN PEER-REVIEWED JOURNALS

- 50 M. Loizos, K. Rogdakis, et al., 2026 Electrode-Engineered Dual-Mode Multifunctional Lead-Free Perovskite Optoelectronic Memristors for Neuromorphic Computing, **Advanced Electronic Materials**, e00713 (2026)
- 49 K. Rogdakis et al., 2026 Opto-Electronic Tuning of Neuron Emulation in Perovskite/Volatile Memristive Transistors, **Advanced Electronic Materials** 12 (1), e00488 (2026)
- 48 M. Đapović et al., 2025 Early-stage analysis of PET–fullerene derivatives for electron transport in photovoltaics. **Phys. Chem. Chem. Phys.**, 27, 18256-18262 (2025)
- 47 K. Anagnostou et al., 2025 Water-based graphene oxide inks for inkjet-printed flexible moisture energy generators, **Scientific Reports** 15, Article number: 24685 (2025) (Citations=6)
- 46 M. Loizos, K. Chatzimanolis, K. Anagnostou, K. Rogdakis, E. Kymakis, 2025 Threshold Resistive Switching in Inorganic Lead-Free Cesium–Bismuth Iodide Perovskite for Neuron Emulation, **ACS Applied Electronic Materials** 7 (8), 3610-3619 (2025) (Citations=5)
- 45 P. Mariani et al., 2025 Upscaling Perovskite Photovoltaics: From 156 cm<sup>2</sup> Modules to 0.73 m<sup>2</sup> Panels, **Advanced Science**, 2416316 (2025) (Citations=8)

- 44 E. Spiliarotis, G. Viskadourous, K. Rogdakias, et al., 2025 Long-Term Outdoor Performance of a Solar Farm enabled by Graphene-Perovskite Panels: Investigating Degradation Mechanisms, Dark Storage Recovery, and Visual Defects, **EES Solar**, 1, 295-309 (2025) (Citations=2)
- 43 K Anagnostou, E Sotiropoulos, N Tzoganakis, C Polyzoidis, K Rogdakias, et al., 2025 Enhancing the Dispersibility and Stability of Graphene in Water Using Porphyrin-Based Compounds, **Small Methods**, 2401431 (2025) (Citations=1)
- 42 M. Loizos, K. Rogdakias, et al., 2024 Emerging materials for resistive switching memories: Prospects for enhanced sustainability and performance for targeted applications, **APL Energy** 2, 040901 (2024) (Citations=8)
- 41 M. Loizos, K. Rogdakias, E. Kymakis 2024 Sustainable Mixed-Halide Perovskite Resistive Switching Memories Using Self-Assembled Monolayers as the Bottom Contact, **The Journal of Physical Chemistry Letters** 15, 7635-7644 (2024) (Citations=11)
- 40 G Fagas, C O'Murchu, K Rogdakias, E Kymakis, E Fortunato, R Martins, 2024 The INFRACHIP European research infrastructure for emerging and responsible electronics **Nature Review Electr. Eng.** 1, 354–355 (2024) (Citations=1)
- 39 M. Almalki, K. Anagnostou, K. Rogdakias, et al., 2024 Improving the operational stability of perovskite solar cells with cesium-doped graphene oxide interlayer **Journal of Energy Chemistry** 96, 483-490 (Citations=10)
- 38 G. Psaltakis, K. Rogdakias, et al., 2024 Dataset of Perovskite Memristive Current-Voltage Characteristics for Pattern Recognition, **IEEE Journal on Flexible Electronics**, DOI: 10.1109/JFLEX.2024.3390671
- 37 M. Loizos, K. Rogdakias\*, et al., 2024 Resistive switching memories with enhanced durability enabled by mixed-dimensional perfluoroarene perovskite heterostructures **Nanoscale Horizons** 9, 1146-1154 (Citations=20)
- 36 D. Tsikritzis et al, 2024 Engineering of perovskite/electron-transporting layer interface with transition metal chalcogenides for improving the performance of inverted perovskite solar cells **Sustainable Energy Fuels**, 8, 2180-2190 (Citations=5)
- 35 N. Vidakis et al., 2024 Optimization course of hexagonal boron carbide ceramic nanofiller content in polypropylene for material extrusion additive manufacturing: Engineering response, nanostructure, and rheology insights. **Next Nanotechnology** 5, 100054 (Citations=6)
- 34 G. Psaltakis, K. Rogdakias, M. Loizos and E. Kymakis, 2024 One-vs-One, One-vs-Rest, and a novel Outcome-Driven One-vs-One binary classifiers enabled by optoelectronic memristors towards overcoming hardware limitations in multiclass classification, **Discover Materials** 4, 7 (Nature Springer). (Citations=16)
- 33 K. Rogdakias, George Psaltakis, Giorgos Fagas, Aidan Quinn, Rodrigo Martins and Emmanuel Kymakis 2024 Hybrid Chips to Enable a Sustainable Internet of Things Technology: Opportunities and Challenges, **Discover Materials** 4 (1), 4 (Nature Springer) (Citations=75)
- 32 Konstantinos Rogdakias and Emmanuel Kymakis 2023 Interface engineering toward efficient carbon-based perovskite solar cells, **Device**, 1 (5) (Citations=2)
- 31 M. Tountas et al., 2023 Improved Performance of Hole-Transporting Material-Free Perovskite Solar Cells Using a Low-Temperature Printed Carbon Paste, **ACS Applied Electronic Materials**, 5, 11, 6228–6235 (Citations=7)
- 30 K. Rogdakias, K. Chatzimanolis, G. Psaltakis, N. Tzoganakis, T. D. Anthopoulos and E. Kymakis 2023 Mixed-Halide Perovskite Memristors with Gate-Tunable Functions Operating at Low-Switching Electric Fields, **Advanced Electronic Materials**, 2300424 (Citations=17)
- 29 D. Jovanović, et al., 2023 Long term stability of graphene/c-Si Schottky-junction solar cells, **Solar Energy Materials & Solar Cells** 258 (2023) 112414 (Citations=8)
- 28 C. Polyzoidis et al., 2023, Piezo-phototronic In<sub>2</sub>Se<sub>3</sub> nanosheets as a material platform for printable electronics towards multi-functional sensing applications, **Advanced Materials Technologies** 8, 2300203 (on the cover of the journal) (Citations=4)
- 27 M. Loizos, M. Tountas, P. Mangelis, K. Rogdakias, E. Kymakis, 2023 Surface Passivation of sequentially-deposited perovskite solar cells by octylammonium spacer cations, **APL Energy** 1, 026102 (2023) DOI: 10.1063/5.0144330 (Citations=7)
- 26 K. Anagnostou et al., 2022, Geometric Tuning for Enhanced Moisture-Driven Electricity Generation Enabled by Graphene-Oxide Flakes, **Coatings** 12 (12), 1970. (Citations=5)

- 25 M. Loizos, K. Rogdakis and E. Kymakis, **2022**, An electronic synaptic memory device based on four-cation mixed halide perovskite, *Discover Materials (Nature Springer)* 2, Article number: 11 (2022) **(Citations=20)**
- 24 D. Tsikritzis et al., **2022** Two-dimensional BiTeI as a novel perovskite additive for printable perovskite solar cells, *Sustainable Energy Fuels*, 6, 5345-5359 (Citations=12)
- 23 V. Thiney, P.-A. Mortemousque, K. Rogdakis et al. **2022** In-flight detection of few electrons using a singlet-triplet spin qubit, *Phys. Rev. Research* 4, 043116 (Citations=9)
- 22 K. Rogdakis et al., **2022** Memristive perovskite solar cells towards parallel solar energy harvesting and processing-in-memory computing, *Mater. Adv.*, **2022**, 3, 7002-7014 **(on journal's cover)** **(Citations=31)**
- 21 S. Pescetelli et al. **2022** Integration of two-dimensional materials-based perovskite solar panels into a stand-alone solar farm, *Nature Energy* 7, p. 597–607 (2022) **(Citations=197)** (journal cover)
- 20 K. Zekentes, E. Choi, E. Bano and K. Rogdakis **2022** Progress in SiC nanowire field-effect-transistors for integrated circuits and sensing applications, *Microelectronic Engineering*, 255, 111704 **(Citations=34)**
- 19 C. Polyzoidis, K. Rogdakis and E. Kymakis, **2021** Indoor perovskite photovoltaics for the Internet of Things – challenges and opportunities towards market uptake, *Adv. Energy Materials*, DOI: 10.1002/aenm.202101854 **(Citations=133)**
- 18 N. Zhao et al. **2021** Growth, strain and spin orbit torques in epitaxial NiMnSb films sputtered on GaAs, *Phys. Rev. Materials* 5, 014413. (Citations=5)
- 17 K. Rogdakis, N. Karakostas and E. Kymakis **2021** Up-scalable emerging energy conversion technologies enabled by 2D materials: from miniature power harvesters towards grid-connected energy systems, *Energy & Environmental Science*, 14, 3352 **(Citations=65)**
- 16 K. Chatzimanolis, K. Rogdakis et al. **2021**, Inverted perovskite solar cells with enhanced lifetime and thermal stability enabled by a metallic Tantalum Disulfide buffer layer, *Nanoscale Adv.*, 3, 3124. **(Citations=28)**
- 15 D. Tsikritzis, K. Rogdakis et al. **2020** A two-fold engineering approach based on Bi<sub>2</sub>Te<sub>3</sub> flakes towards efficient and stable inverted perovskite solar cells, *Materials Advances*, 2020, 1, 450 – 462 **(Citations=30)**
- 14 M. Petrović, K Rogdakis, E Kymakis **2019** Beneficial impact of materials with reduced dimensionality on the stability of perovskite-based photovoltaics. *Journal of Physics: Energy* 1 (4), 044001 (Citations=9)
- 13 P. Phu et al. **2019** Bolometric ferromagnetic resonance techniques for characterising spin-Hall effect at high temperatures, *J. Magn. Magn. Mater.* 485, 304-307 (Citations=8)
- 12 K. Rogdakis et al. **2019** Spin diffusion length and spin Hall angle extraction of NbN thin films from spin pumping experiments, *Phys. Rev. Materials* 3, 014406 **(Citations=48)**
- 11 K. Rogdakis et al., **2017** Energy transfer in spin-pumping experiments *Appl. Phys. Express* 11 013004 (Citations=3)
- 10 K. Rogdakis et al. **2015** Geometric tuning of charge and spin correlations in manganite superlattices *Appl. Phys. Lett.* 106 023120 (Citations=2)
- 9 K. Rogdakis et al. **2012** Tunable ferroelectricity in artificial tri-layer superlattices comprised of non-ferroic components *Nature Communications* 3:1064, Doi:10.1038/ncomms2061 **(Citations=59)**
- 8 K. Zekentes and K. Rogdakis **2011** SiC nanowires: Material and devices *J. Phys. D: Appl. Phys.* 44 133001 **Invited Topical Review (Citations=228)**
- 7 K. Rogdakis, **2010** Experimental and theoretical study of 3C-silicon carbide nanowire field effect transistors, PhD dissertation, Grenoble INP (Citations=2)
- 6 K. Rogdakis et al. **2011** Rectifying source and drain contacts for effective carrier transport modulation of extremely doped SiC nanowire FETs *IEEE Trans. On Nanotechnology* 10 980-984 **(Citations=24)**
- 5 K. Rogdakis et al. **2009** Phonon and surface roughness limited mobility of gate-all-around 3C-SiC and Si nanowire FETs *Nanotechnology* 20 295202 **(Citations=66)**
- 4 S. K. Lee et al. **2009** Si Nanowire p-FET with asymmetric source-drain I-V characteristics *Solid State Communications* 149 461-463 **(Citations=13)**

- 3 S. Y. Lee et al. **2008** Fabrication of Ion-implanted Si Nanowire p-FETs *J. Phys. Chem. C* **112** 13287–13291 (**Citations=13**)
- 2 K. Rogdakis et al. **2008** 3C-SiC nanowire FET: An experimental and theoretical Approach *Special Issue on SiC of IEEE Transactions on Electron Devices* **55** 1970-1976 (**Citations=57**)
- 1 K. Rogdakis et al. **2007** Theoretical comparison of 3C-SiC and Si nanowire FETs in ballistic and diffusive regimes *Nanotechnology* **18** 475715 (**Citations=34**)

**Citations summary (Google Scholar):** 1384 (since 2021: 945), H-factor=17, i10-index=24

## ORAL-POSTER PRESENTATIONS IN INTERNATIONAL CONFERENCES

Relevant work and obtained experimental results were presented in **>45 conferences** with **>35 oral** and **10 poster** contributions (full list of abstracts available upon request). Among the oral presentations, **>15 of them were invited talks**.

1. K. Rogdakis delivered an **invited webinar** on BIP framework for Emerging Materials & Applications organized by EMINENT Master program with a title “Printable Non-volatile and Volatile Memristors Based on Halides Perovskites for Artificial Synapses and Neurons Emulation”.
2. K. Rogdakis delivered an **invited oral presentation** in nanoBALKAN 2025 conference on 29<sup>th</sup> of October 2025 in Tirana, Albania, with a title “Printable Non-volatile and Volatile Memristors Based on Halides Perovskites for Artificial Synapses and Neurons Emulation”
3. K. Rogdakis delivered an **invited oral presentation** in NanoGe conference 2025 conference in the SimChar symposium in October 2025 in Valencia, Spain, with a title “Towards Energy-Efficient Neuromorphic Systems: Pattern Recognition and Multiclass Classification Enabled by Perovskite Memristors”
4. K. Rogdakis delivered an **invited oral presentation** in NanoGe conference 2025 conference in the Neuromorph symposium in October 2025 in Valencia, Spain, with a title “Printable Non-volatile and Volatile Memristors Based on Halides Perovskites for Artificial Synapses and Neurons Emulation”
5. K. Rogdakis delivered an **invited oral presentation** in NanoGe conference 2025 conference on October 2025 in Valencia, Spain, with a title “Towards Energy-Efficient Neuromorphic Systems: Pattern Recognition and Multiclass Classification Enabled by Perovskite Memristors”
6. Printable Non-volatile and Volatile Memristors Based on Halides Perovskites for Artificial Synapses and Neurons Emulation, Micro Nano International Conference, 6-9/11 2025, Chania, Greece
7. Memristive switching in mixed-halide perovskite transistors, *NanoBio 2025 conference*, Heraklion, Greece September 2025; **Invited talk**
8. K. Rogdakis delivered a talk in ICAMAT conference on 2nd of July 2025 in Singapore, with a title “Printable Non-volatile and Volatile Memristors Based on Lead-Free Perovskites for Artificial Synapses and Neurons Emulation”
9. K. Rogdakis delivered a talk in E-MRS conference on 26th of May 2025 in Strasburg, France, with a title “Printable Volatile memristors based on Lead-Free Perovskites for neuron emulation”
10. K. Rogdakis delivered an **invited webinar** in INFRACHIP series of digital schools on 17<sup>th</sup> of March 2025, with a title “Perovskites meet 2D materials: A novel materials platform for efficient energy harvesting and neuromorphics”
11. K. Rogdakis delivered an **invited oral presentation** in nanoBALKAN 2024 conference on 28<sup>th</sup> of October 2024 in Tirana, Albania, with a title “Sustainable Resistive Switching Memories Enabled by Halide Perovskites”
12. K. Rogdakis delivered an **invited oral presentation** (virtually connected) in ICPAMs 2024 conference on 14<sup>th</sup> of September 2024 in Antalya, Turkey, with a title “Perovskites meet 2D materials: A novel materials platform for efficient energy harvesting and neuromorphics”
13. K. Rogdakis delivered an **invited oral presentation** (virtually connected) in nanoALB network 2024 in Tirana, Albania on 10<sup>th</sup> of September, with a title “Perovskites meet 2D materials: A novel materials platform for efficient energy harvesting and neuromorphics”
14. K. Rogdakis delivered an **oral presentation** in EMRS Conference on May 2024 in Strasbourg, France, with a title “Memristive switching in mixed-halide perovskite transistors”
15. K. Rogdakis delivered an **invited oral presentation** in IEEE HMU workshop on May 2024 in Heraklion, Greece, with a title “Perovskites meet 2D materials: A novel materials platform for efficient energy harvesting and neuromorphics”

16. K. Rogdakis delivered an **invited oral presentation** in WOCSDICE-EXMATEC 2024 conference on May 2024 in Heraklion, Greece, with a title “Perovskites meet 2D materials: A novel materials platform for efficient energy harvesting and neuromorphics”
17. K. Rogdakis delivered an **invited oral presentation** in HOPV 2024 conference on May 2024 in Valencia, Spain, with a title “Memristive perovskite solar cells for self-powered IoT edge computing”
18. K. Rogdakis delivered an **oral presentation** in Neuronics conference 2024 on February 2024 in Valencia, Spain, with a title “Parallel volatile and non-volatile memristive switching in mixed-halide perovskite synaptic transistors”
19. K. Rogdakis delivered an **oral presentation** in Memrysis 2023 on November 2023 in Torino, Italy, with a title “3D/2D Heterostructure mixed halide perovskite resistance memories enabled by perfluorinated spacer cations with enhanced retention and endurance characteristics”
20. K. Rogdakis delivered an **invited talk** in nanoBalkan2023 International Conference in Tirana on October 2023 with a title “Perovskites meet 2D materials: A novel materials platform for efficient energy harvesting and neuromorphics”.
21. K. Rogdakis delivered an **invited talk** in Graphene CDT Advanced Technology Lectures in Cambridge Graphene Center on March 2023 with a title “Perovskites meet 2D materials: A novel materials platform for efficient energy harvesting and neuromorphics”.
22. K. Rogdakis delivered an oral presentation in Innolae conference 2023 organized in Cambridge, UK with a title: *Memristive perovskite solar cells towards parallel solar energy harvesting and processing-in-memory computing*.
23. K. Rogdakis delivered an **invited talk** in 2DNanoMat - 2D Nanomaterials for Energy and Environmental Applications in October 2022 in Barcelona with a title: *Up-scalable conventional and emerging energy conversion technologies enabled by 2D materials: from miniature power harvesters towards grid-connected energy systems*.
24. K. Rogdakis delivered an oral presentation in TCM conference 2022 in Heraklion October 2022 with a title: *Memristive perovskite solar cells towards parallel solar energy harvesting and processing-in-memory computing*.
25. K. Rogdakis delivered an oral presentation during 36<sup>th</sup> Pan-Hellenic conference on Solid-State Physics and Materials Science Heraklion, 26-28 September 2022, presenting results on the Integration of two-dimensional materials-based perovskite solar panels into a stand-alone solar farm- an event financially supported by Graphene Flagship.
26. K. Rogdakis delivered an oral presentation disseminating Emerging Printed Electronics Research Infrastructure- EMERGE during the 15th International Symposium on Flexible Organic Electronics (ISFOE22) held in Thessaloniki, Greece in 4-7th July 2022, an event financially supported by EMERGE.
27. K. Rogdakis delivered an oral presentation related to ‘*Memristive perovskite solar cells towards self-powered IoT edge computing*’ during the 15th International Symposium on Flexible Organic Electronics (ISFOE22) held in Thessaloniki, Greece in 4-7th July 2022, a study financially supported by EMERGE.
28. Numerous meetings within Graphene Flagship, GF, presenting HMU deliverables for WP11- Core 2 and Core 3 phases during the period 6/2018-present. (i.e., recent annual GF meeting held in Dublin during 20-22/4 2022).
29. K. Rogdakis delivered a webinar on the School in Layered Materials and Applications organized by Athena university with a title of Up-scalable emerging energy conversion technologies enabled by 2D materials: from miniature power harvesters towards grid-connected energy systems.
30. Highly efficient and stable perovskite solar cells using Graphene-related-materials as dopants and interlayers, *NanoBio 2018 conference*, Heraklion, Greece September 2018; Invited talk
31. Spin pumping and spin transport in NbN/YIG structures, *IOP Magnetism 2018, Manchester, UK, 10-11 April 2018*; Oral presentation
32. Geometric tuning of charge and spin correlations in manganite superlattices, *E-MRS Spring Meeting, Lille, France, May 11-15 2015*; Poster presentation
33. Tunable ferroelectricity in tri-color superlattices composed of non-ferroic components, *ICAE2013, South Africa, July 1-4, 2013*; Oral presentation
34. Coupled ferromagnetism and ferroelectricity in superlattices of non-ferroelectric antiferromagnetic manganites, *Meeting of the American Physical Society 2013, Baltimore, USA*; Oral presentation
35. Magnetically tunable ferroelectricity in artificial tri-layer superlattices of non-ferroelectric manganites, *MMM-Intermag conference 2013, January 13-18, Chicago, USA*; Oral presentation
36. Emergent ferroelectricity and magnetoelectricity in asymmetric superlattices based on antiferromagnets, *E-MRS Fall Meeting, Warsaw, Poland, September 17-21 2012*; Oral presentation

37. Ferroelectricity and magnetoelectric coupling in superlattices composed of non-ferroic components, *Energy Materials Nanotechnology Meeting, Orlando Florida, April 16-20 2012*; Invited talk
38. Tunable ferroelectricity and magnetoelectricity at the interfaces of superlattices of antiferromagnets, *Meeting of the American Physical Society, Boston 27/2-2/3 2012*; Invited talk
39. Ferroelectricity and magnetoelectric coupling in superlattices composed of non-ferroic components, *The 4th APCTP workshop on multiferroics, Beijing 10-12/1/2012*; Invited talk
40. Material limitations for the development of high performance SiC NWFETs, *HeteroSiC 2011*; Oral presentation
41. SiC nanowire FET operation improvement by using Schottky contacts at source and drain regions, *WOCSDICE 2011*, Oral presentation
42. Experimental and theoretical study of 3C-SiC nanowire field effect transistors, *IESL Seminar at FORTH Institute, 21/7/2009*
43. Field effect transistors based on catalyst-free grown 3C-SiC nanowires *International Conference of Silicon Carbide and Related Material, Germany 2009*; Poster presentation
44. Backscattering coefficient in 3C-SiC gate-all-around nanowire FETs *9<sup>th</sup> Nanotechnology conference IEEE NANO Genoa July 26-30 2009*; Oral presentation
45. Electrical transport properties of catalyst free grown 3C-SiC nanowires, *HeteroSiC/Workshop on Advanced Semiconductor Materials and devices for Power Electronics applications, Catania, Italy 2009*; Oral presentation
46. Electrical properties of 3C-SiC nanowires *17th European Heterostructure Technology Workshop HETECH, Venice, 2008*; Oral presentation
47. Effect of Source and Drain contacts Schottky Barrier on 3C- SiC nanowire FETs I-V characteristics *appeared in the European Conference of Silicon Carbide and Related Materials, Barcelona, Spain 2008*; Poster presentation
48. Theoretical comparison of 3C-SiC and Si nanowire FETs in ballistic regime *appeared in the International Conference of Silicon Carbide and Related Materials, Otsu, Japan 2007*; Poster presentation
49. *SiC nanowire FET Migas Summer School with subject: Multi-Physics and Multi-Scale Simulation for NanoElectronics, Grenoble, 2007*; Poster presentation

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#### Participation in international committees for thesis evaluation

Assist. Professor K. Rogdakis participated in the evaluation of the research progress of Maria Elias Lopes Pereira of university UNINOVA, Portugal, with evaluation date 24/07/2023, and the final PhD thesis defence in 4/11/2024. The thesis subject was «Neuromorphic computation using memristor and thin film transistor devices based on amorphous oxide semiconductor technology».

In the committee for the progress monitoring (24/07/2023) participated the following scientists:

Pedro Miguel Cândido Barquinha	Chair and co-supervisor, Associate Professor	NOVA University Lisbon
Konstantinos Rogdakis	External member, Principal Researcher	Hellenic Mediterranean University, Greece
Joana Maria Dória Vaz Pinto Morais Sarmiento	Internal member, Assistant Professor	NOVA University Lisbon
Asal Kiazadeh	Supervisor, Assistant Researcher	NOVA University Lisbon
Pydi Ganga Bahubalindrani	Co-supervisor, Assistant Professor	Indian Institute of Science Research and Education, Bhopal, India

In the committee for PhD defence (4/11/2024) participated the following scientists:

José Alferes	President, Professor	NOVA University Lisbon
Carlo Ricciardi	Reviewer, Professor	Politecnico di Torino, Italy
Konstantinos Rogdakis	External member, Assist. Professor	Hellenic Mediterranean University, Greece
Valeria Bragaglia	Reviewer, Researcher	IBM, Zurich
Sérgio de Almeida Matos	Internal member, Professor	NOVA University Lisbon
Asal Kiazadeh	Supervisor, Assistant Researcher	NOVA University Lisbon
Elvira Maria Correia Fortunato	Internal member, Professor	NOVA University Lisbon

Assist. Professor K. Rogdakis was **the chair** of the international PhD thesis defence committee implemented in 11/11/2024 of Ms Ashitha Paingott Parambil, a PhD candidate in the University Autonomous of Barcelona, Spain. The thesis subject was «Functionalized MXene-based Halide Perovskite Solar Cells for Self-Power Electronics».

In the committee for PhD defence (11/11/2024) participated the following scientists:

Lira Cantú, Mónica	Supervisor, Professor	University Autonomous of Barcelona, Spain
Antonio Urbina Yeregui	Reviewer, Professor	Universidad Pública de Navarra, Spain
Konstantinos Rogdakis	President, Assist. Professor	Hellenic Mediterranean University, Greece
Antonio Guerrero Castillejo	Reviewer, Professor	Universitat Jaume I
Jovana V. Milic	Reviewer, Professor	UNIVERSITÉ DE FRIBOURG
Sonia Ruiz Raga	Internal member, Professor	Universitat Autònoma de Barcelona

Assist. Professor K. Rogdakis participated in the supervision and evaluation of the master thesis of Mr Manuel Vieira with thesis title «Flexible Triboelectric Nanogenerators of Metallic Mxenes» in the framework of the master program “MASTER IN MICRO AND NANOTECHNOLOGIES ENGINEERING” of university UNINOVA, Portugal, with evaluation date 20/11/2023. Mr Manuel Vieira during his thesis visited HMU and worked in NANO@HMU labs for two months where he fabricated and characterized corresponding samples.

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## OTHER ACCOMPLISHMENTS

- Foreign languages: English (fluent), German (intermediate), French (beginner)
- Programming languages: Turbo Pascal, Java, C, C++, LISP, Fortran
- TCAD-software: Synopsis (Medici/Suprem) and Silvaco (Atlas/Athena) simulation packages
- Other software: Mathematica, Matlab, Origin, Labview
- Material characterization tools: optical microscope, SEM, AFM, XRD, surface profilometer
- Trained in clean room processes (including e-beam lithography)
- RF-electronics
- Low temperature (20mK) electrical and magnetic characterization including C-V, I-V, Hall effect, pyroelectric-current, endurance and data retention of memory devices, RF measurements in HEMTs and QPCs, Coulomb diamond and stability diagram in quantum dots, ferromagnetic resonance, inverse spin Hall effect.
- Solar cells optoelectronic characterization (steady and transient J-V characteristics, transient photocurrent and photovoltage, external quantum efficiency, ISOS stability protocols, etc.)