CURRICULUM VITAE
of
Georgios Papadimitropoulos

PERSONAL INFORMATION

FULL NAME: Papadimitropoulos D. Georgios
DATE OF BIRTH: 5th April 1978
ADDRESS: Smyrnis 20, Melissia – 151 27
MOBILE: 00306973989966
SEX: MALE
MARITAL STATUS: Married (three children)
NATIONALITY: Greek
MILITARY SERVICE: Completed (from 17th August 2009 to 17th April 2010)
Email: g.papadimitropoulos@inn.demokritos.gr

EDUCATION

- **PhD** in "Growth of Cu and WO_x films by thermal and hot-wire Chemical Vapor Deposition. Characterization and application of these films to microelectronics" [2009].
  National and Kapodistrian University of Athens, Department of Informatics & Telecommunications (in cooperation with NCSR Demokritos).
- **MSc** in Microelectronics, thesis in "A novel transistor based on cuprous oxide (Cu_2O)" [2004].
  National and Kapodistrian University of Athens, Department of Informatics & Telecommunications (in cooperation with NCSR Demokritos).
- **BSc** in Physics, thesis in "Photovoltaic Panels" [2002].
  University of Ioannina, Physics Department.

RESEARCH FIELDS

1. Chemical Vapor Deposition (CVD), Hot-Wire (HW) Deposition, Atomic Layer Deposition (ALD) of thin films (experience in Cu, Cu_xO, W, WO_x, Ta, TaO_x, Mo, MoO_x films).
2. Thin film characterization using various spectroscopic and electrical measurements.
3. Fabrication and characterization of various electronic devices based on the above films.

DEVELOPMENT OF CVD REACTORS

Development of a fully automated-PC driven, vertical, hot-wire (HW) assisted CVD reactor for the deposition of Cu films from CupraSelect® directly-liquid-injected (DLI) in the reactor.

PARTICIPATION TO SCIENTIFIC PROJECTS:

- Occupation to scientific projects from 2004-2015:

  01/01/2004 – 30/03/2004 Fabrication of metalized glass substrates for applications in decoration using microelectronic techniques.
  01/03/2005 – 31/05/2005 FOOD SAFETY AND QUALITY MONITORING WITH MICROSYSTEMS.
  01/04/2005 – 31/12/2005 Triple Hybride Concentrating PV system for the cogeneration of electricity, heat and cooling power.
  01/04/2006 – 31/03/2008 Copper nano-electrodes and novel transistors based on tungsten oxides nano-rods (CONECTOR).
  01/05/2008 – 23/05/2008 Smoke Optical Detectors (OAKA).
  24/05/2008 – 17/06/2008 Size and shape dependence of exchange-bias in ferromagnetic/antiferromagnetic nanoparticles for high density data storage media.
  18/12/2008 – 24/4/2009 Thin films deposition.
  01/03/2010 – 31/05/2010 Microelectronic elements for LAB on Chip.
  01/06/2010 – 31/05/2011 Microelectronic elements for LAB on Chip molecular analysis instruments for genetic and environmental applications.
  02/11/2011 – 01/7/2013 TFTsolar – Processes for developing new photovoltaic silicon nanomaterials
  01/07/2012 – 30/6/2013 Hybrid Light Emitting Diodes (HyLEDs) Eco Power with Improved Features Operation .
  01/07/2012 – 30/6/2013 Innovative Hybrid Organic Photovoltaic Cells (HyOPVs) High Performance.
  01/04/2012 – 31/3/2015 Fotopolis – Photonic polymeric systems for information technology applications.
  01/8/2014 – 31/10/2015 YDISE – Advanced Materials and Devices for Collecting and Energy Management.

PUBLICATIONS: **51** scientific journals, 37 international conferences.

CITATIONS : 1228 **h-index: 17**
(http://www.scopus.com/authid/detail.url?authorId=8639036700#**)**

FUNDING

IKY-SIEMENS: Financial support by IKY fellowships of excellence for postgraduate studies in Greece.
Title : An innovative chemical sensor of low power and low manufacturing cost.
Duration: 2013-2015.

TEACHING:

- Teaching Associate at National and Kapodistrian University of Athens, Physics Department (2002-2003).
- Teaching Associate at TEI of Chalkida (2005-2006, 2006-2007, 2007-2008, 2008-2009, 2010-2011, 2012-2013).
- Teaching Associate at TEI of Piraeus (2010- 2017).

Theses Co-Supervising

MSc theses:

1. E. Kritikos, "Structure and electrical properties of CVD vanadium oxide films", UoA July 2006 (Master Program: Microelectronics)
2. D. Renesis. "Deposition of W/Cu layers on patterned LTO surfaces. Study of the dependence of step coverage on the deposition conditions", UoA Dec. 2006 (Master Program: Microelectronics)
3. L. Zambelis. Selective chemical vapor deposition of vanadium oxides on Cu features made by colloidal lithography, (NTUA, Master Program: Nanodevices and Nanosystems 2009)
4. G. L. Rokadakis Micrographic concentration silicon photovoltaic cells, (UoA Master Program: Microelectronics 2009)
5. K. Tsevas. Advanced materials for the fabrication of photovoltaic cells, (NTUA, Master Program: Nanodevices and Nanosystems 2015)
6. N. Panousis. Development and study of the contact of multi-crystalline Si/Cu and application in photovoltaic cells, (NTUA, Master Program: Nanodevices and Nanosystems 2013).
7. G. Dapei. Screen print copper metallization of Si photovoltaic solar cells" University where the Thesis was presented: (NTUA, Master Program: Nanodevices and Nanosystems 2015)
8. T. Tsiatouras. Study of the interface metal/metallic sub-oxides/semiconductor and optimization of the method of extraction of Schottky diodes parameters University where the Thesis was presented: (NTUA, Master Program: Nanodevices and Nanosystems 2016)

Phd thesis co-supervision:

Ioannis Kostis. Micro- and Nano- Electronics Semiconductor Devices for Applications in Advanced Information Systems, University of Aegean (2013)

Co-supervision and guidance of the following BSc theses of TEI of Piraeus:

1. Karystinos I. «Characterization of Photovoltaic Systems in field conditions» (2016)
2. N. Pasipoularidis, Resistive gas sensing elements using as catalytic (sensing) materials thin films of WO_3, MoO_3 and Ta_2O_5, which were tested using H_2 and CO as target gases (ongoing).

LANGUAGES:

- Greek: Mother language.
- English: Excellent, Michigan Proficiency in English.
- German: Elementary.

OTHER SKILLS / KNOWLEDGE:

- Fortran, Windows, Microsoft Office, Spice, Cadence, SEM and AFM.

SEMINARS:

- *Communication systems and network development (850 hours).*

JOURNAL PAPERS:

1. **G. Papadimitropoulos**, N. Vourdas, V Em Vamvakas and D Davazoglou Journal of Physics 10 (2005) p.182.
   Deposition and characterization of copper oxide thin films.

2. **G. Papadimitropoulos**, N. Vourdas, V. Em. Vamvakas and D. Davazoglou Thin Solid Films 515 (2006) p.2428.
   Optical and structural properties of copper oxide thin films grown by oxidation of metal layers.

3. **G. Papadimitropoulos**, D. Davazoglou, Microelectronic Engineering 84 (2007) p.1148.
   Copper metallization based on direct-liquid-injection hot-wire CVD.

4. **G. Papadimitropoulos**, D. Davazoglou, Surface and Coatings Technology 201 (2007) p.8935.
   Hot-wire assisted chemical vapor deposition of Cu by direct-liquid-injection of CupraSelect®.

5. L. Kritikos, L. Zambelis, **G. Papadimitropoulos** and D. Davazoglou, Surface and Coatings Technology 201 (2007) p.9334.
   Structure and electrical properties of selectively chemically vapor deposited vanadium oxide films from Vanadium tri-i-propoxy oxide vapors.

6. **G. Papadimitropoulos** and D. Davazoglou, Chemical Vapor Deposition 13, (2007), p.656.
Copper films deposited by hot-wire chemical vapor deposition and direct- liquid-injection of CupraSelect®.

7. **G. Papadimitropoulos**, A. Arapoyanni and D. Davazoglou, Physica Status Solidi (a) 205**, (**2008)**,** p.2607.
Hot-wire CVD of Copper films on Self-Assembled-Monolayers of MPTMS.

8. M. Vasilopoulou, A. Botsialas, P. Argitis, G. Aspiotis, **G. Papadimitropoulos**, and D. Davazoglou, Physica Status Solidi (c) 5-12, (2008), p.3868.
Flexible WO_3 based electrochromic displays using proton conducting solidelectrolytes.

9. **G. Papadimitropoulos**, T. Speliotis, A. Arapoyianni and D. Davazoglou, ECS Transactions 25 (8), (2009), p.893. *Initial stages of thermally and hot-wire assited CVD Copper on SiLK and LTO substrates activated with Mercaptopropyl triethoxysilane Self-Assembled Monolayers*.

10. **G. Papadimitropoulos**, S. Cibella, R. Leoni, A. Arapoyianni and D. Davazoglou, ECS Transactions 25 (8), (2009), p. 1285. *Fabrication of Micro- and Nano-Electrodes by Selective Chemical Vapor Deposition of Cu on Si Substrates Patterned with AZ5214™ and PMMA*.

11. P. Dimitrakis, **G. Papadimitropoulos**, L.C. Palilis, M. Vassilopoulou, P. Normand, P. Argitis and D. Davazoglou, ECS Transactions 25 (8), (2009), p.1073. *Memory Structures Based on the Self-organization of Cu Nanoparticles Deposited by Hot-Wire CVD onPolythiophene Layers.*

12. Nikolaos A. Stathopoulos, Leonidas C. Palilis, Stylianos P. Savaidis, Stepan R. Yesayan, Maria Vasilopoulou, **Giorgos Papadimitropoulos**, Dimitris Davazoglou and Panagiotis Argitis, IEEE Journal of Selected Topics in Quantum Electronics 16, 6, (2010), p.1784. *Optical modeling of hybrid polymer solar cells using a transmission line model and comparison with experimental results.*

13. M. Vasilopoulou, L. C. Palilis, D. G. Georgiadou, P. Argitis, I. Kostis, **G. Papadimitropoulos**, N. A. Stathopoulos, A. A. Iliadis, N. Konofaos and D. Davazoglou, *Advances in Science and Technology Vol. 75 (2010) pp 74-78. Nanostructured metal oxides as cathode interfacial layers for hybrid-polymer electronic devices*

14. M. Vasilopoulou, L. C. Palilis, D. G. Georgiadou, P. Argitis, S. Kennou, I. Kostis, **G. Papadimitropoulos**, N. A. Stathopoulos, A. A. Iliadis, N. Konofaos and D. Davazoglou, *Thin Solid Films 519 (2011) 5748–5753.*
Tungsten oxides as interfacial layers for improved performance in hybrid optoelectronic devices.

15. Maria Vasilopoulou, Leonidas C. Palilis, Dimitra G. Georgiadou, Antonios M. Douvas, Panagiotis Argitis, Stella Kennou, Labrini Sygellou, **Georgios Papadimitropoulos**, Ioannis Kostis, Nikos A. Stathopoulos and Dimitris Davazoglou, *Adv. Funct. Mater.* ***2011****, 21, 1489–1497.*
Reduction of tungsten oxide: a path towards dual functionality utilization for efficient anode and cathode interfacial layers in Organic Light Emitting Diodes.

16. Maria Vasilopoulou, Leonidas Palilis, Dimitra Georgiadou, Panagiotis Argitis, Stella Kennou, Labrini Sygellou, Ioannis Kostis, **Giorgos Papadimitropoulos**, Nikos Konofaos, Agis A. Iliadis and Dimitris Davazoglou, *APPLIED PHYSICS LETTERS,* ***98****, 123301, 2011.*
Reduced Molybdenum Oxide as an Efficient Electron Injection Layer in Polyner Light emitting Diodes.

17. **G. Papadimitropoulos**, N. Vourdas, K. Giannakopoulos, M. Vasilopoulou and D. Davazoglou, *JOURNAL OF APPLIED PHYSICS 109 (10), 103527 (2011).*
Porous hot-wire WO_3 thin films with high optical transmission.

18. **G. Papadimitropoulos**, D. Davazoglou, Nanoscience and Nanotechnology, vol. 11, 9, 8169-8173, 2011.
Investigation of thermal and hot-wire CVD copper thin films on TiN substrates using Cupraselect® as precursor.

19. **G. Papadimitropoulos**, D. Davazoglou, Nanoscience and Nanotechnology, vol. 11, 9,8237-8241,2011.
Deposition of thermal and hot-wire CVD copper thin films on patterned substrates.

20. M. Vasilopoulou , D.G. Georgiadou, L.C. Palilis, P. Argitis , S. Kennou , L. Sygellou , N. Konofaos, A. Iliadis, I. Kostis, **G. Papadimitropoulos**, D. Davazoglou Microelectron. Eng. 90, 59-61, 2012.
Reduced transition metal oxides as electron injection layers in hybrid-PLEDs.

21. **Giorgos Papadimitropoulos**, Ioannis Kostis, Roubini Triantafyllopoulou, Vasiliki Tsouti, Maria Vasilopoulou & Dimitris Davazoglou, Microelectron. Eng., 90, 51-54, 2012.
Investigation of porous hot-wire WO_3 thin films for gas sensing application.

22. N. Vourdas, **G. Papadimitropoulos**, I. Kostis, M. Vasilopoulou and D. Davazoglou, Thin Solid Films, 520 (9), 3614-3619, 2012.

Substoichiometric hor-wire WO_x films deposited in reducing ambient.

23. M. Vasilopoulou, **G. Papadimitropoulos**, L. Pallilis, D. Georgiadou, P. Argitis, S. Kennou, I. Kostis, N. Vourdas, N. Stathopoulos, D. Davazoglou, Organic Electronics 13 (2012) p.796.

    High performance organic light emitting diodes using substoichiometric tungsten oxide as efficient hole injection layer.

24. I Kostis, L Michalas, M Vasilopoulou, N Konofaos, G Papaioannou, A A Iliadis, S Kennou, K Giannakopoulos, **G Papadimitropoulo**s and D Davazoglou, J. Phys. D: Appl. Phys. 45 (2012) 445101 (7pp)
    Hot-wire substoichiometric tungsten oxide films deposited in hydrogen environment with n-type conductivity.

25. Maria Vasilopoulou, Antonios M. Douvas, Dimitra G. Georgiadou, Leonidas C. Palilis, Stella Kennou, Labrini Sygellou, Anastasia Soultati, Ioannis Kostis, **Giorgos Papadimitropoulos**, Dimitris Davazoglou and Panagiotis Argitis, J. Am. Chem. Soc. 2012, 134, 16178-16187.
    The influence of Hydrogenation and Oxygen Vacancies on Molybdenum Oxides Work Function and Gap States for Application in Organic Optoelectronics.

26. Kostis I., Vourdas N., Vasilopoulou M., Douvas A., **Papadimitropoulos G.**, Konofaos N., Iliadis A., Davazoglou D., Thin Solid Films, 537, p.124-130, 2013.
    Formation of stoichiometric, sub-stoichiometric undoped and hydrogen doped tungsten oxide films, enabled by pulsed introduction of O_2 or H_2 during hot-wire vapor deposition.

27. Maria Vasilopoulou, Ioannis Kostis, Antonios M. Douvas, Dimitra G. Georgiadou, Anastasia Soultati, **Giorgos Papadimitropoulos**, Nikos A. Stathopoulos, Stelios S. Savaidis, Panagiotis Argitis, Dimitris Davazoglou, Surface and Coatings Technology, 230, 2013, p. 202-207.
    Vapor-deposited hydrogenated and oxygen-deficient molybdenum oxide thin films for application in organic optoelectronics.

28. I. Kostis, M. Vasilopoulou, A. Soultati, P. Argitis, N. Konofaos, A. M. Douvas, N. Vourdas, **G. Papadimitropoulos,** D. Davazoglou, Microelecton. Eng., 111, 2013, p. 149-153.
    Highly porous tungsten oxides for electrochromic applications.

29. Kostis I., Vasilopoulou M., **Papadimitropoulos G.**, Stathopoulos N., Savaidis S., Davazoglou D., Surface and Coatings Technology, 230, 2013, p. 51-58.
    Deposition of Undoped and H doped WO_x ($x \leq 3$) Films in a Hot-Wire Atomic Layer Deposition System Without the Use of Tungsten Precursors

30. Maria Vasilopoulou, Panagiotis Dimitrakis, Dimitra G. Georgiadou, Dimitrios Velesiotis, **G. Papadimitropoulos,** Dimitris Davazoglou, Athanasios Coutsoleos

and Panagiotis Argitis, Applied Physics Letters, vol 103, issue 2, 2013, art. No 022908.
Emergence of ambient temperature ferroelectricity in meso-tetrakis(1-methylpyridinium-4-yl)porphyrin chloride thin films.

31. Kostis I., Vourdas N., **Papadimitropoulos G**., Douvas A., Vasilopoulou M., Boukos N., Davazoglou D., Journal of Physical Chemistry C, v. 117, issue 35, 2013, p. 18013.
Effect of the oxygen sub-stoichiometry and of hydrogen insertion on the formation of intermediate bands within the gap of disordered molybdenum oxide films

32. Vasilopoulou, M., Georgiadou, D.G., Soultati, A., **Papadimitropoulos, G.**, Argitis, P., Alexandropoulos, D., Vainos, N., Politi, C.T., Kamalakis, T., Davazoglou, D., International Conference on Transparent Optical Networks, ICTON, 2014, 6876661.
Enhancing spectral response of organic photodetectors through surface modification of metal oxide electrodes.

33. Soultati A., Georgiadou D., Douvas A., Argitis P., Alexandropoulos D., Vainos N.A., Stathopoulos N.A., **Papadimitropoulos G.**, Davazoglou D., Vasilopoulou M., Microelectronic Eng., 117, 2014, p. 13-17.
The role of metal/metal oxide/organic anode interfaces in efficiency and stability of bulk heterojunction organic photodetectors.

34. Vasilopoulou, M., Kostis, I., Vourdas, N., **Papadimitropoulos, G.**, Douvas, A., Boukos, N., Kennou, S., Davazoglou, D.,Journal of Physical Chemistry C, 118, (24), 2014, p. 12632-12641.
Influence of the oxygen substoichiometry and of the hydrogen incorporation on the electronic band structure of amorphous tungsten oxide films.

35. Kouvatsos, D.N., **Papadimitropoulos, G.**, Spiliotis, T., Vasilopoulou, M., Barreca, D., Gasparotto, A., Davazoglou, D., Physica Status Solidi (C) Current Topics in Solid State Physics, 12 (7), 2015, p. 975-979.
Electrical characteristics of vapor deposited amorphous MoS_2 two-terminal structures and back gate thin film transistors with Al, Au, Cu and Ni-Au contacts

36. **Papadimitropoulos, G.**, Kostis, I., Trantalidis, S., Tsiatouras, A., Vasilopoulou, M., Davazoglou, D., Physica Status Solidi (C) Current Topics in Solid State Physics, 12 (7), 2015, p. 964-968.
Investigation of structural, morphological and electrical properties of APCVD vanadium oxide thin films

37. **Papadimitropoulos, G.**, Vourdas, N., Kontos, A., Vasilopoulou, M., Kouvatsos, D.N., Boukos, N., Gasparotto, A., Barreca, D., Davazoglou, D., Physica Status Solidi (C) Current Topics in Solid State Physics, 12 (7), 2015, p. 969-974.
Hot-wire vapor deposition of amorphous MoS_2 thin films.

38. Psifis, K., Louloudakis, D., Vernardou, D., Spanakis, E., **Papadimitropoulos, G.**, Davazoglou, D., Katsarakis, N., Koudoumas, E., Physica Status Solidi (C) Current Topics in Solid State Physics, 12 (7), 2015, p. 1011-1015.
Effect of O_2 flow rate on the electrochromic response of WO_3 grown by LPCVD.

39. Soultati, A., **Papadimitropoulos, G.**, Davazoglou, D., Argitis, P., Alexandropoulos, D., Politi, C.T., Vainos, N., Pistolis, G., Coutsolelos, A.G., Vasilopoulou, M., International Conference on Transparent Optical Networks, 2015-August, 7193672.
Near-IR organic light emitting diodes based on porphyrin compounds.

40. Vasilopoulou, M., Stathopoulos, N.A., Savaidis, S.A., Kostis, I., **Papadimitropoulos, G.**, Davazoglou, D., Applied Surface Science, 350, 2015, p. 25-30.
Engineering of the energetic structure of the anode of organic photovoltaic devices utilizing hot-wire deposited transition metal oxide layers.

41. Vernardou, D., Psifis, K., Louloudakis, D., **Papadimitropoulos, G.**, Davazoglou, D., Katsarakis, N., Koudoumas, E., 2015, Journal of the Electrochemical Society, 162 (9), 2015, p. H579-H582.
Low pressure CVD of electrochromic WO_3 at 400°C.

42. Vasilopoulou, M., Georgiadou, D.G., Soultati, A., Douvas, A.M., **Papadimitropoulos, G.**, Davazoglou, D., Pistolis, G., Stathopoulos, N.A., Kamalakis, T., Alexandropoulos, D., Vainos, N., Politi, C.T., Palilis, L.C., Couris, S., Coutsolelos, A.G., Argitis, P., Microelectronic Engineering, 145, 2015, p. 21-28.
Solution processed multi-color organic light emitting diodes for application in telecommunications

43. Dapei, G., **Papadimitropoulos, G.**, Varvitsiotis, D., Koustas, G., Vasilopoulou, M., Davazoglou, D., Physica Status Solidi (A) Applications and Materials, 2015, Article in Press.
Screen-printed copper for front- and back-side metallization of single- and multi-crystalline silicon solar cells

44. Angelika Balliou, **Giorgos Papadimitropoulos**, George Skoulatakis, Stella Kennou, Dimitrios Davazoglou, Spiros Gardelis, Nikos Glezos, ACS Appl. Mater. Interfaces, 2016, 8 (11), pp 7212–7220.
Low-Dimensional Polyoxometalate Molecules/Tantalum Oxide Hybrids for Non-Volatile Capacitive Memories

45. A. Soultati, M. Vasilopoulou , **G. Papadimitropoulos**, A. Douvas, I. Kostis, I. Karystinos, S. Kennou, G. Skoulatakis, D. Davazoglou, Thin Solid Films, 2016, 615, p. 329-337.

Impact of microwave post-deposition annealing on the crystallization of amorphous hydrogenated perovskites

46. Anastasia Soultati, Ioannis Kostis, **Giorgos Papadimitropoulos**, Angelos Zeniou, Envagelos Gogolides, Dimitris Alexandropoulos, Nikos Vainos, Dimitris Davazoglou, Thanassis Speliotis, Nikolaos A Stathopoulos, Panagiotis Argitis and Maria Vasilopoulou, J. Phys. D: Appl. Phys. **50** (2017) 505105 (11pp).
Microwave exposure as a fast and cost effective alternative of oxygen plasma treatment of indium-tin oxide electrode for application in organic solar cells

47. Maria Vasilopoulou, Nikolaos Kelaidis, Ermioni Polydorou, Anastasia Soultati, Dimitris Davazoglou, Panagiotis Argitis, **Giorgos Papadimitropoulos**, Dimitris Tsikritzis, Stella Kennou, Florian Auras, Dimitra G. Georgiadou, Stavros-Richard G. Christopoulos and Alexander Chroneos, Scientific Reports, DOI:10.1038/s41598-017-18051-0.
Hydrogen and nitrogen co doping of anatase TiO_2 for efficiency enhancement in organic solar cells

48. D. Louloudakis, D. Vernardou, **G. Papadimitropoulos**, D. Davazoglou and E. Koudoumas, Advanced Materials Letters, (2018), **9**(3), 192-198.

Effect of deposition temperature on the electrochromic properties of WO3 grown by LPCVD

49. **Giorgos Papadimitropoulos**, Maria Vasilopoulou, Nikos Vourdas, Dimitris N. Kouvatsos, Kostas Giannakopoulos, Stella Kennou, Dimitris Davazoglou, Advanced Materials Letters, (2019), **10**(6), 395-399.
Room temperature growth of ultra-porous hot-wire deposited tantalum pentoxide

50. Angelika Balliou, Dimitrios Skarlatos, **Giorgos Papadimitropoulos**, Nikolaos Z. Vouroutzis, Nikos Boukos, Nikos Glezos, Advanced Functional Materials, (2019), 1902642.
Molecular/Nanostructured Functional Metal Oxide Stacks for Nanoscale Nanosecond Information Storage

51. Maria Vasilopoulou, Abd Rashid Bin Mohd Yusoff, Navaratnarajah Kuganathan, Xichang Bao, Apostolis Verykios, Ermioni Polydorou, Konstantina-Kalliopi Armadorou, Anastasia Soultati, **Georgios Papadimitropoulos**, Muhammad Irfan Haider, Azhar Fakharuddin, Leonidas C. Palilis, Stella Kennou, Alexander Chroneos, Panagiotis Argitis, Dimitris Davazoglou, Nano Energy 70 (2020) 104508.
A carbon-doped tantalum dioxyfluoride as a superior electron transport material for high performance organic optoelectronics

CONFERENCE PROCEEDINGS (REFFEREED):

1. **G. Papadimitropoulos**, D. Davazoglou, *Copper metallization based on direct-liquid-injection hot-wire CVD,* 32rd International Conference on Micro- and Nano-Engineering (MNE), September 2006, Barcelona, Spain.

2. **G. Papadimitropoulos**, D. Davazoglou *Hot-Wire Chemical Vapor Deposition of Copper Films on (3-Mercaptopropyl)trimethoxysilane Activated SiLK® and SiO_2 substrates by Direct-Liquid-Injection of CupraSelect®,* 4th International Workshop on "Nanosciences & Nanotechnologies - NN07", July 2007, Thessaloniki, Greece.

3. L. Zambelis,L. Kritikos, **G. Papadimitropoulos** and D. Davazoglou, *Selective Chemical Vapor Deposition of Vanadium Oxide Films from Vanadium tri-i-propoxy Oxide Vapors*, 4th International Workshop on "Nanosciences & Nanotechnologies - NN07", July 2007, Thessaloniki, Greece.

4. M. Vasilopoulou, P. Argitis, G. Aspiotis, **G. Papadimitropoulos** and D. Davazoglou, *Flexible all-solid state electrochromic displays based on polymeric electrolytes*, 4th International Workshop on "Nanosciences & Nanotechnologies - NN07", July 2007, Thessaloniki, Greece.

5. **G. Papadimitropoulos**, D. Davazoglou, *Hot-wire assisted chemical vapor deposition of Cu by direct-liquid-injection of CupraSelect®,* EuroCVD-16, September 2007, Den Haag, The Netherlands.

6. L. Kritikos, L. Zambelis, **G. Papadimitropoulos** and D. Davazoglou, *Selective chemical vapor deposition of vanadium oxides by of Vanadium tri-i-propoxy oxide vapors*, EuroCVD-16, September 2007, Den Haag, The Netherlands.

7. **G. Papadimitropoulos**, A. Arapoyanni and D. Davazoglou, *Hot-wire CVD of Copper films on Self-Assembled-Monolayers of MPTMS,* 3rd International Conference on Micro-Nanoelectronics, Nanotechnology & MEMs (Micro-Nano), November 2007, Athens, Greece.

8. M. Vasilopoulou, A. Botsialas, P. Argitis, G. Aspiotis, **G. Papadimitropoulos**, and D. Davazoglou, *Flexible WO_3 based electrochromic displays using proton conducting solidelectrolytes,* 3rd International Conference on Micro-Nanoelectronics, Nanotechnology & MEMs (Micro-Nano), November 2007, Athens, Greece.

9. **G. Papadimitropoulos**, T. Speliotis, A. Arapoyianni and D. Davazoglou, *Initial stages of thermal and hot-wire assisted CVD Copper growth on SiLK® and LTO activated with Mercaptopropyl triethoxysilane self-assembled monolayers,* Materials for Advanced Metallization (MAM), March 2008, Dresden, Germany.

10. P. Dimitrakis, M. Vassilopoulou, L. Palilis, **G. Papadimitropoulos**, D. Davazoglou, A. Argitis, P. Normand, *Self-organization of Cu nanoparticles on polythiophene layers for bistable memory devices,* European Material Research Society (E-MRS) 2008 Spring Meeting, May 2008, Strasbourg, France.

11. **G. Papadimitropoulos**, S. Cibella, Th. Speliotis, R. Leoni, M. Vassilopoulou and D. Davazoglou, *Selective Deposition of Copper on TiN Substrates versus electron beam patterned PMMA,* 5th International Workshop on "Nanosciences & Nanotechnologies - NN08", July 2008, Thessaloniki, Greece.

12. **G. Papadimitropoulos**, S. Cibella, Th. Speliotis, R. Leoni, M. Vassilopoulou and D. Davazoglou, *Selective Deposition of Copper on TiN Substrates versus electron beam patterned PMMA by DLI of CupraSelect®,* 34rd International Conference on Micro- and Nano-Engineering (MNE), September 2008, Athens, Greece.

13. M. Vasilopoulou, L. C. Palilis, D. G. Georgiadou, P. Argitis, I. Kostis, **G. Papadimitropoulos**, N. A. Stathopoulos, A. Iliadis, N. Konofaos and D. Davazoglou, *Tungsten oxides as cathode interfacial layers for improved electron injection in polymer light- emitting diodes,* 39th European Solid-State Device Research Conference (ESSDERC) 2009.

14. **G. Papadimitropoulos**, T. Speliotis, A. Arapoyianni and D. Davazoglou, *Initial stages of thermally and hot-wire assited CVD Copper on SiLK and LTO substrates activated with Mercaptopropyl triethoxysilane Self-Assembled Monolayers,* EuroCVD-17 2009, Vienna, Austria.

15. **G. Papadimitropoulos**, S. Cibella, R. Leoni, A. Arapoyianni and D. Davazoglou, *Fabrication of Micro- and Nano-Electrodes by Selective Chemical Vapor Deposition of Cu on Si Substrates Patterned with AZ5214™ and PMMA,* EuroCVD-17 2009, Vienna, Austria.

16. P. Dimitrakis, **G. Papadimitropoulos**, L.C. Palilis, M. Vassilopoulou, P. Normand, P. Argitis and D. Davazoglou, *Memory structures based on the self-organization of Cu nanoparticles deposited by hot-wire CVD on polythiophene*

layers, EuroCVD-17 2009, Vienna, Austria.

17. M. Vasilopoulou , D.G. Georgiadou, L.C. Palilis, P. Argitis , S. Kennou , L. Sygellou , N. Konofaos, A. Iliadis, I. Kostis, **G. Papadimitropoulos**, D. Davazoglou, *Reduced transition metal oxides as electron injection layers in hybrid-PLEDs*, 4th International Conference on Micro-Nanoelectronics, Nanotechnology & MEMs (Micro-Nano), December 2010, Athens, Greece.

18. **Giorgos Papadimitropoulos**, Ioannis Kostis, Roubini Triantafyllopoulou, Vasiliki Tsouti, Maria Vasilopoulou & Dimitris Davazoglou, *Investigation of porous hot-wire WO_3 thin films for gas sensing application*, 4th International Conference on Micro-Nanoelectronics, Nanotechnology & MEMs (Micro-Nano), December 2010, Athens, Greece.

19. M. Vasilopoulou, L. C. Palilis, **G. Papadimitropoulos**, P. Argitis, I. Kostis, A. A. Iliadis, N. Konofaos and D. Davazoglou, Improving the characteristics of Hybrid Organic-inorganic optoelectronic devices using metal oxide interfacial layers, 8th International Conference on Nanosciences & Nanotechnologies (NN11), June 2011, Thessaloniki, Greece.

20. I. Kostis, M. Vasilopoulou, D. G. Georgiadou, **G. Papadimitropoulos**, P. Argitis, , A. A. Iliadis, N. Konofaos and D. Davazoglou, A hot filament vapour deposition method for growing metal oxides applied in hybrid organic-inorganic optoelectronic devices, 8th International Conference on Nanosciences & Nanotechnologies (NN11), June 2011, Thessaloniki, Greece.

21. **G. Papadimitropoulos**, D. Davazoglou, *Deposition of thermal and hot-wire CVD copper thin films on patterned substrates*, EuroCVD18 September 2011, Cork, Ireland.

22. **G. Papadimitropoulos**, D. Davazoglou, *Investigation of thermal and hot-wire CVD copper thin films on TiN substrates using Cupraselect® as precursor*, EuroCVD18 September 2011, Cork, Ireland.

23. I. Kostis, **G. Papadimitropoulos**, N. Vourdas, M. Vasilopoulou, N. Konofaos and D. Davazoglou, *Characterization of Metal Oxides Thin Films Deposited by Hot-Wire Vapor Deposition*, EuroSensors XXV, September 2011, Athens, Greece.

24. **G. Papadimitropoulos**, M. Vasilopoulou, D. Davazoglou, *Porous Hot-Wire Metal Oxides Thin Films in Hydrogen Sensing,* EuroSensors XXV September 2011, Athens, Greece.

25. **Papadimitropoulos G.** , Pasipouraridis N., Kostis I., Vasilopoulou M. , Davazoglou D., *Room temperature growth of porous molybdenum oxides for hydrogen and*

carbon monoxide sensing, International Conference on Micro- and Nano-Engineering (MNE), September 2013, London, U.K.

26. **Papadimitropoulos G.**, Vasilopoulou M., Davazoglou D., *Tantalum hot-wire porous oxides for hydrogen and carbon monoxide sensing,* International Conference on Micro- and Nano-Engineering (MNE), September 2014, Lausanne, Switzerland

27. Dimitrios N. Kouvatsos, **George Papadimitropoulos**, Thanassis Speliotis, Maria Vasilopoulou, Davide Barreca, Alberto Gasparotto and Dimitris Davazoglou, *Electrical characteristics of vapor deposited amorphous MoS_2 two-terminal structures and back gate thin film transistors with Al, Au, Cu and Ni-Au contacts,* EuroCVD 20, July 2015, Sempach, Switzerland.

28. **Georgios Papadimitropoulos**, Nikolaos Vourdas, A. Kontos, Maria Vasilopoulou, Dimitrios N. Kouvatsos, Nicolas Boukos, Alberto Gasparotto, Davide Barreca and Dimitrios Davazoglou, *Hot-wire vapor deposition of amorphous MoS_2 thin films,* EuroCVD 20, July 2015, Sempach, Switzerland.

29. **Georgios Papadimitropoulos**, Ioannis Kostis, Stelios Trantalidis, Athanasios Tsiatouras, Maria Vasilopoulou, Dimitris Davazoglou, *Investigation of structural, morphological and electrical properties of APCVD Vanadium Oxide thin films,* EuroCVD 20, July 2015, Sempach, Switzerland.

30. **G. Papadimitropoulos**, D.N. Kouvatsos and D. Davazoglou, *Structural, morphological and electrical characterization of hot-wire deposited metal oxides,* Euromat2017, September 2017, Thessaloniki, Greece

31. V. Tsouti, **G. Papadimitropoulos**, S. Chatzandroulis, *Graphene based resistive flexible strain sensors and their limitations,* 15th International Conference on Nanoscieces & Nanotechnologies (NN18) 3-6 July 2018, Thessaloniki, Greece

32. **G. Papadimitropoulos**, V. Tsouti, D. N. Kouvatsos, D. Davazoglou, S. Chatzandroulis, *Hot Wire Deposition of MoS_2 films on flexible polyimide/metal substrates and their use as flexible strain sensors,* 15th International Conference on Nanoscieces & Nanotechnologies (NN18) 3-6 July 2018, Thessaloniki, Greece

33. **G. Papadimitropoulos**, A. Gasparotto, D. Barreca, A. G. Kontos, D. Davazoglou and D. N. Kouvatsos, *Structural and morphological properties of hot-wire deposited MoS_2 thin films,* EuroCVD22, Luxembourg, 24-28 June, 2019.

34. **G. Papadimitropoulos**, V. Tsouti, D. N. Kouvatsos, I. Kostis, D. Goustouridis, N. Stathopoulos, S. Kaminaris, D. Davazoglou, *Investigation of structural, morphological and electrical characterization of hot-wire metal oxides*, 16th International Conference on Nanoscieces & Nanotechnologies (NN18) 1-5 July 2019, Thessaloniki, Greece.

35. **G. Papadimitropoulos**, A. Balliou, D. Davazoglou and D. N. Kouvatsos, *Investigation of morphological and structural properties of hot-wire deposited molybdenum sulphide thin films,* 45th International Conference on Micro & Nano Engineering, Rhodes Greece, 23-26 September, 2019.

36. **G. Papadimitropoulos**, A. Balliou , D. Davazoglou and D. N. Kouvatsos, *Growth of molybdenum sulphide ultra-thin films and their characterization,* 17th International Conference on Nanosciences & Nanotechnologies (NN20) 7-10 July 2020, Thessaloniki, Greece.

37. **G. Papadimitropoulos**, J. Theodorakos, I. Zergioti and D. N. Kouvatsos, *Laser annealing of amorphous molybdenum sulphide ultra-thin films,* 17th International Conference on Nanosciences & Nanotechnologies (NN20) 7-10 July 2020, Thessaloniki, Greece.