

**PERSONAL INFORMATION**



**Evangelos V. Hristoforou**

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Sex Male | Date of birth 07/01/1961 | Nationality Hellenic

**POSITION**

Professor of Electronic Materials, Director, Laboratory of Electronic Sensors  
School of Electrical and Computer Engineering, National TU of Athens, Greece

**WORK EXPERIENCE**

– today

**Professor**

Director, Laboratory of Electronic Sensors, School of Electrical and Computer Engineering, National Technical University of Athens, Zografou Campus, Athens 15780, Greece

7/2012 – 6/2016

**Professor**

Department of Metallurgy and Technology of Materials, School of Mining and Metallurgy Engineering, National Technical University of Athens, Zografou Campus, Athens 15780, Greece, [www.metal.ntua.gr](http://www.metal.ntua.gr)

2/2007 – 7/2012

**Associate Professor**

Department of Metallurgy and Technology of Materials, School of Mining and Metallurgy Engineering, National Technical University of Athens, Zografou Campus, Athens 15780, Greece, [www.metal.ntua.gr](http://www.metal.ntua.gr)

3/2000 – 2/2007

**Assistant Professor**

Department of Metallurgy and Technology of Materials, School of Mining and Metallurgy Engineering, National Technical University of Athens, Zografou Campus, Athens 15780, Greece, [www.metal.ntua.gr](http://www.metal.ntua.gr)

11/1998 – 3/2000

**Professor**

Department of Electrical Engineering, Technological & Educational Institute of Chalkis, Psahna, Euboea, 34400, Greece

4/1994– 11/1998

**Assistant Professor**

Department of Electrical Engineering, Technological & Educational Institute of Chalkis, Psahna, Euboea, 34400, Greece

1/1991 – 12/1993

**Research Fellow**

National Centre for Scientific research "Demokritos", Aghia Paraskevi, Greece

10/1988 – 11/1990

**Research Assistant**

Electronic & Electrical Engineering Department, King's College, University of London, UK

10/1986 – 10/1988

**Research Engineer**

Peadouce SA, Avlon Attika, Greece

1/1985 – 9/1986

**Electrical Engineer**

202 State Factory of Airplanes, Greece

**EDUCATION AND TRAINING**

10/1987-11/1991

**PhD**

Electronic & Electrical Engineering Department, King's College, University of London, UK  
Thesis on "Array Sensors Based on Amorphous Alloys"

10/1978-4/1984

**Diploma in Electrical Engineering**

Electrical Engineering Department, School of Engineering, University of Patras, Greece  
Final Year Thesis on "Development of a Galvanometric Sensor"

**PERSONAL SKILLS**

Mother tongue(s)

Greek

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	A1	A1	A1	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user - Common European Framework of Reference for Languages

Organisational / managerial skills

- Dean, School of Engineering, TEI of Chalkis, 1996-1998
- Chair, Electrical Engineering Department, TEI of Chalkis, 1998-1999
- Director, Laboratory of Metrology, TEI of Chalkis, 1994-1999
- Leader, Group of Electronic and Magnetic Materials, National TU of Athens, 2000 – 2016
- Director, Laboratory of Electronic Sensors, National TU of Athens, 2016 – today

Job-related skills

- Material development: rapidly quenched ribbons-wires, thin films, thick films, powders
- Material characterization: structure (electron microscopy, x-rays, other), properties (electric, magnetic, optical, other) and their simulation-correlation
- Sensor development & testing: magnetometers, mechanical sensors, steel health monitoring

Other skills

- 1500 meter runner (best personal record 3:53:45 in 1986)

Driving licence

- B (car)

ADDITIONAL INFORMATION

Distinctions

Among the 2% of **highly cited researchers** in the field of sensors & electronic materials  
Member of the Mediterranean Academy of Sciences & Arts

Publications  
Presentations  
Conferences

He has published more than **175 3papers in international journals**, more than 50 papers in international conferences and more than 300 presentations in conferences. His papers have been cited more than 3000 times in journal publications and patents of well-known companies in the field of sensors (**h-index=29 in Scopus & 33 in Google Scholar**). He has given more than **50 invited talks** in international conferences and workshops. He has also published **2 review articles**. He is reviewer in more than 21 international journals and 11 international conferences.

Editorial Boards

**Memberships to Editorials Boards of International Journals**

1. Editorial Board in several Journals of MDPI (Sensors, Materials, Metals, Magnetochemistry)
2. Regional Editor, "Recent Patents in Material Science"
3. Editorial Board in "Journal of Electrical Engineering", "Journal of Automation Mobile Robotics and Intelligent Systems" and "Measurement Automation Robotics"
4. Guest Editor in "Sensors & Actuators: A", IEEE T Magnetics

Conference committees

1. President, Internati3onal Advisory Committee, European Magnetic Sensor and Actuator Conference
2. X-President, International Conference on Materials and Applications for Sensors and Transducers
3. Member, International Steering Committee, Soft Magnetic Materials Conference

Organization of Conferences

**Organisation of International Conferences:**

- Chair, 4<sup>th</sup> European Magnetic Sensor and Actuator Conference, 2002, publishing in Sensors and Actuators
  - Chair, 1<sup>st</sup> International Conference on Materials and Applications for Sensors and Transducers, 2011, publishing in Key Engineering Materials, Sensor Letters and Journal of Optoelectronics and Advanced Materials
  - Chair, 20<sup>th</sup> Soft Magnetic Materials Conference, 2011, publishing in IEEE Transactions on Magnetics
  - Chair, 2<sup>nd</sup> International Conference on Materials and Applications for Sensors and Transducers, 2012, publishing in Key Engineering Materials, Sensor Letters
  - Chair, 3<sup>rd</sup> International Conference on Materials and Applications for Sensors and Transducers, 2013, publishing in Key Engineering Materials and Sensor Letters
  - Chair, 4<sup>th</sup> International Conference on Materials and Applications for Sensors and Transducers, 2014, publishing in Key Engineering Materials and Sensor Letters
  - Chair, 5<sup>th</sup> International Conference on Materials and Applications for Sensors and Transducers, 2015, publishing in the Institute of Physics, Conference Series
  - Chair, 6<sup>th</sup> International Conference on Materials and Applications for Sensors and Transducers, 2016, publishing in the Institute of Physics, Conference Series
  - Chair, 12<sup>th</sup> European Magnetic Sensor and Actuator Conference, 2018, publishing in IEEE Transactions on Magnetics
  - Chair, 7<sup>th</sup> International Conference on Materials and Applications for Sensors and Transducers, 2018, publishing in the Institute of Physics, Conference Series
- (Also chair-person in numerous sessions of international conferences)

Projects

**Current research projects:**

1. Valuable products from micro-Algae (VALUEMAG). H2020 project, coordinated by E Hristoforou; Budget: 4,750,000 Euros. Targeting an innovative method for magnetic cultivation of micro-algae. Recently, extending towards bio-degradable polymers.
2. SUMBIO. Interreg project; Budget: 1,300,000 Euros. Targeting production of bio-fuel from green, domestic and industrial wastes.
3. Steel health monitoring (STHEMON). Budget: open program (up to this moment >1,500,000 Euros). This project is related to the correlation of magnetic and mechanical properties with residual stresses, thus offering the possibility of predicting the crack generation.

**More than 10 million Euros from projects as project coordinator or principal investigator**

## RESEARCH PLAN

Prof E Hristoforou is the Director of the Laboratory of Electronic Sensors of the National Technical University of Athens. His group targets include scientific research, technology development and technology products and knowledge transfer in the following scientific fields:

### Materials and Applications for Sensors and Transducers

**Steel Health Monitoring (SteHeMon)**: The offered innovation refers to a method for monitoring the residual stress tensor distribution in steels, which consequently provides the prediction of crack due to high gradient, including localized induction heating for localized stress rehabilitation. TRL 6-7.

**Magnetic Effects for Sensing Applications (MESA)**: Development of magnetic field sensors using magnetic techniques with sensitivity  $\sim 1 \text{ pT Hz}^{-1}$  and moderate cost; mechanical sensors based on the magnetostriction effect (position, force digitizers, coagulation sensors). Applications of magnetometers in magnetic anomaly detection. TRL 5.

**Innovative materials (Materials)**: Development of thin and thick (hybrid) films for sensing elements, powders for several applications and rapidly quenched alloys for sensors, using magnetic, optical, conducting and semiconducting properties.

### Hybrid Electric Energy & Environment Integrated Cluster (HELENIC)

**Marine & Maritime Technologies (MARITECH)**: Innovative products, including sensors, microplastics monitoring, etc. TRL stands for 1-2 for basic research (microplastics), 4-7 for sensors & processes under development (hydrogen production, pyrolysis) and 8 for ready products (antifouling & pipeline cleaning).

**Advances for Smart Cities (Smart Cities)**: Development of harvesting techniques with new renewable fuels (mainly hydrogen production & pyrolysis), insulating technologies, storage technologies (batteries and supercapacitors, thermal storage); IoT for smart city monitoring in electricity-water-gas metering, road traffic-parking-charging & resilience fire-flooding-earthquake sensors and reaction systems. TRL 2-5.

**Advances Environmental Engineering (Environment)**: Development of innovative methods for desalination, sewage and other cleaning processes, based on our selective magnetic separation technology, used for mining and waste of agricultural products, extraction of valuable products. TRL 5-6.

### Health & Life Explorers (HELIX)

**Biosensors**: Development Lab-on-Chip (LoC) sensors to detect viruses, enzymes, proteins and other compounds for use either out-of-body, or implantables or wearables; software applications for electro & magneto cardiographs, scoliosis, and other applications. TRL 3-4.

**Valuable products from Agriculture (Agri)**: Development of a Digital Innovation Hub on Agri-Food and Bio-economy. Precision agriculture (IoT); development of pharmaceutical & therapeutic products. TRL 4-5.

**Therapeutics & Diagnostics (THERAGNOSTICS)**: Development of innovative techniques for: preventing tumor multiplication; curing neurological diseases; curing organs. TRL 3.

**Electromagnetic Stimulation (EMS)**: Basic research on the effect of electromagnetic fields on the properties of proteins, organs and tissues, aiming at new therapy technologies. TRL 1-2.

## STATEMENT OF TEACHING INTERESTS

- Solid state physics, structure & properties correlation
- Sensors, microsystems, calibration
- Microelectronics technology & packaging
- Magnetism and magnetic materials



## PUBLICATIONS WITH CHRONOLOGICAL ORDER

### A. Monographies, Reviews

#### A1. Monographies

- 1) E. Hristoforou, Array Sensors Based on Amorphous Alloys, PhD Thesis, University of London, 1991
- 2) E. Hristoforou, Basic Circuit Theory & Electronic Technology, Kallipos, Hellenic Ministry of Education, 2015
- 3) E. Hristoforou, Electronic materials, Kallipos, Hellenic Ministry of Education, 2015

#### A2. Reviews

- 1) E. Hristoforou, "Magnetostrictive Delay Lines: Engineering Theory and Sensing Applications", Review Article, Meas. Sci. & Technol., 14, p. R15-R47, 2003.
- 2) A. Ktena and E. Hristoforou, "Magnetic Effects in Sensing Applications", Encyclopedia of Sensors, Amerikan Publishers (Ed. C. Grimes), 2005

### B. Journal Publications

- 1) Angelopoulos, S., Misiaris, D., Banis, G., (...), Ktena, A., Hristoforou, E., Steel health monitoring device based on Hall sensors, Journal of Magnetism and Magnetic Materials 515,167304, 2020
- 2) Liang, K., Tsarabaris, P., Ktena, A., Bi, X., Hristoforou, E., Smart stress annihilation in steels using residual stress distribution monitoring and localized induction heating Open Access, Metals 10(6),838, pp. 1-11, 2020
- 3) Kouli, M.-E., Banis, G., Savvidou, M.G., Ferraro, A., Hristoforou, E., A study on magnetic removal of hexavalent chromium from aqueous solutions using magnetite/zeolite-x composite particles as adsorbing material Open Access, International Journal of Molecular Sciences 21(8),2707, 2020
- 4) Banis, G., Tyrovolas, K., Angelopoulos, S., Ferraro, A., Hristoforou, E., Pushing of magnetic microdroplet using electromagnetic actuation system Open Access, Nanomaterials 10(2),371,2020
- 5) Marino, T., Casella, P., Sangiorgio, P., (...), Molino, A., Musmarra, D., Natural beta-carotene: A microalgae derivate for nutraceutical applications, Chemical Engineering Transactions 79, pp. 103-108, 2020
- 6) Zaky, A.A., Ibrahim, M.N., Rezk, H., (...), Sergeant, P., Falaras, P., Energy efficiency improvement of water pumping system using synchronous reluctance motor fed by perovskite solar cells, International Journal of Energy Research, Article in Press, 2020
- 7) Liang, K., Angelopoulos, S., Lepipas, G., (...), Bi, X., Hristoforou, E., Sensor to monitor localized stresses on steel surfaces using the magnetostrictive delay line technique Open Access, Sensors (Switzerland) 19(21),4797,2019
- 8) Hristoforou, E., Ktena, A., Gong, S., Magnetic Sensors: Taxonomy, Applications, and New Trends, IEEE Transactions on Magnetics 55(7),8606122, 2019
- 9) Berkesi, K., Živković, P.M., Elezović, N., (...), Hristoforou, E., Nikolić, N.D., Mechanism of formation of the honeycomb-like structures by the regime of the reversing current (RC) in the second range, Journal of Electroanalytical Chemistry 833, pp. 401-410, 2019
- 10) Angelopoulos, S., Vourna, P., Ktena, A., Tsarabaris, P., Hristoforou, E., Design and development of a new magnetometer calibration device, IEEE Transactions on Magnetics 55(1),8493562, 2019
- 11) Savvidou, M.G., Banis, G., Ferraro, A., (...), Kolisis, F., Hristoforou, E., Production of magnetic modified microalgae using iron oxide nanoparticles and electroporation technique, Chemical Engineering Transactions 73, pp. 13-18, 2019
- 12) Kouli, M.-E., Banis, G., Tsarabaris, P., Ferraro, A., Hristoforou, E., A study on magnetic removal of sodium, calcium and potassium ions from seawater using magnetite/clinoptilolite–Na composite nanoparticles, Journal of Magnetism and Magnetic Materials 465, pp. 692-699, 2018
- 13) Molino, A., Rimauro, J., Casella, P., (...), Hristoforou, E., Musmarra, D., Extraction of astaxanthin from microalga Haematococcus pluvialis in red phase by using generally recognized as safe solvents and accelerated extraction Open Access, Journal of Biotechnology 283, pp. 51-61, 2018
- 14) Vourna, P., Ktena, A., Tsarabaris, P., Hristoforou, E., Magnetic residual stress monitoring technique for ferromagnetic steels Open Access, Metals 8(8),592, 2018
- 15) Giouroudi, I., Hristoforou, E., Perspective: Magnetostrictive sensors for biomedicine Open Access, Journal of Applied Physics 124(3),030902, 2018
- 16) Aivazoglou, E., Metaxa, E., Hristoforou, E., Microwave-assisted synthesis of iron oxide nanoparticles in biocompatible organic environment Open Access, AIP Advances 8(4),048201, 2018
- 17) Hristoforou, E., Ktena, A., Vourna, P., Argiris, K., Dependence of magnetic permeability on residual stresses in alloyed steels Open Access, AIP Advances 8(4),047201, 2018
- 18) Markova, I.N., Piskin, M.B., Zahariev, I.Z., (...), Ivanova, D.I., Fachikov, L.B., Influence of the support on the morphology of Co-Sn, Ni-Sn, Co-Ni nanoparticles synthesized through a borohydride reduction method applying a template technique Open Access, Reviews on Advanced Materials Science 55(1-2), pp. 82-91, 2018
- 19) Molino, A., Rimauro, J., Casella, P., (...), Chianese, S., Musmarra, D., Microalgae valorisation via accelerated solvent extraction: Optimization of the operative conditions, Chemical Engineering Transactions 65, pp. 835-840, 2018
- 20) Vourna, P., Hristoforou, E., Ktena, A., Svec, P., Mangiorou, E., Dependence of Magnetic Permeability on Residual Stresses in Welded Steels, IEEE Transactions on Magnetics 53(4),7742409, 2017
- 21) Zahariev, I.Z., Hristoforou, E., Markova, I.N., Template synthesis and study of Co-Ni core/carbon shell nanoparticles, Journal of Chemical Technology and Metallurgy 52(2), pp. 400-414, 2017
- 22) Markova, I.N., Zahariev, I.Z., Milanova, V.L., (...), Fachikov, L.B., Hristoforou, E., Nanomaterials based on intermetallic (Co-Sn, Ni-Sn, Co-Ni) nanoparticles studied by ftir spectroscopy, Reviews on Advanced Materials Science 52(1-2), pp. 70-81, 2017

- 23) Banis, G., Kouli, M.E., Ferraro, A., (...), Musmarra, D., Hristoforou, E., An innovative application of super-paramagnetic iron oxide nanoparticles for magnetic separation, *Chemical Engineering Transactions* 60, pp. 85-90, 2017
- 24) Banis, G., Kouli, M.E., Ferraro, A., (...), Musmarra, D., Hristoforou, E., An innovative application of super-paramagnetic iron oxide nanoparticles for magnetic separation, *Chemical Engineering Transactions* 60, pp. 85-90, 2017
- 25) Kossyvakis, D.N., Voutsinas, G.D., Hristoforou, E.V., Experimental analysis and performance evaluation of a tandem photovoltaic-thermoelectric hybrid system, *Energy Conversion and Management* 117, pp. 490-500, 2016
- 26) Kossyvakis, D.N., Vassiliadis, S.G., Vossou, C.G., (...), Potirakis, S.M., Hristoforou, E.V., Computational Analysis of a Thermoelectric Generator for Waste-Heat Harvesting in Wearable Systems, *Journal of Electronic Materials* 45(6), pp. 2957-2966, 2016
- 27) Hristoforou, E., Vourna, P., Ktena, A., Svec, P., On the Universality of the Dependence of Magnetic Parameters on Residual Stresses in Steels, *IEEE Transactions on Magnetics* 52(5), 7362189, 2016
- 28) Adamaki, B., Karatza, D., Chianese, S., (...), Metaxa, E., Hristoforou, E., Super-paramagnetic nanoparticles: Manufacturing, structure, properties, simulation, applications, *Chemical Engineering Transactions* 47, pp. 79-84, 2016
- 29) Kossyvakis, D.N., Vossou, C.G., Provaidis, C.G., Hristoforou, E.V., Computational analysis and performance optimization of a solar thermoelectric generator, *Renewable Energy* 81, pp. 150-161, 2015
- 30) Vourna, P., Ktena, A., Tsakiridis, P.E., Hristoforou, E. An accurate evaluation of the residual stress of welded electrical steels with magnetic Barkhausen noise, *Measurement: Journal of the International Measurement Confederation* 71, pp. 31-45, 2015
- 31) Antipas, G.S.E., Mangiorou, E., Hristoforou, E., The effect of indium content on the atomic environment and cluster stability of GeSe<sub>4</sub>In<sub>x=10,15</sub> glasses Open Access, *Metals* 5(1), pp. 102-118, 2015
- 32) Vourna, P., Ktena, A., Tsakiridis, P.E., Hristoforou, E., A novel approach of accurately evaluating residual stress and microstructure of welded electrical steels, *NDT and E International* 71, pp. 33-42, 2015
- 33) Kossyvakis, D.N., Vossou, C.G., Provaidis, C.G., Hristoforou, E.V., Computational and experimental analysis of a commercially available Seebeck module, *Renewable Energy* 74, pp. 1-10, 2015
- 34) Vourna, P., Hervochoes, C., Vrana, M., Ktena, A., Hristoforou, E., Correlation of magnetic properties and residual stress distribution monitored by X-ray and neutron diffraction in welded AISI 1008 steel sheets, *IEEE Transactions on Magnetics* 51(1), 7029219, 2015
- 35) Koumoulos, E.P., Markakis, V., Tsikourkitoudi, V.P., (...), Papadopoulos, N., Hristoforou, E., Tribological characterization of chemical vapor deposited Co and Co<sub>3</sub>O<sub>4</sub> thin films for sensing reliability in engineering applications, *Tribology International* 82(PA), pp. 89-94, 2015
- 36) Koumoulos, E.P., Tsikourkitoudi, V.P., Kartsonakis, I.A., (...), Hristoforou, E., Charitidis, C.A., Synthesis, structural and nanomechanical properties of cobalt based thin films, *International Journal of Structural Integrity* 6(2), pp. 225-242, 2015
- 37) Christopoulos, A., Hristoforou, E., Koulalis, I., Tsamasphyros, G., Inductive strain sensing using magnetostrictive wires embedded in carbon fibre laminates, *Smart Materials and Structures* 23(8), 085035, 2014
- 38) Ktena, A., Manasis, C., Hristoforou, E., On the measurement of permeability and magnetostriction in ribbons and wires, *IEEE Transactions on Magnetics* 50(4), 6798058, 2014
- 39) Vourna, P., Ktena, A., Hristoforou, E., Residual stress analysis in nonoriented electrical steel sheets by barkhausen noise measurements, *IEEE Transactions on Magnetics* 50(4), 6798041
- 40) Antipas, G.S.E., Mangiorou, E., Hristoforou, E., Solute-solvent interactions and atomic cohesion in GeSe<sub>4</sub> and GeSe<sub>4</sub>In<sub>5</sub> metallic glasses, *Materials Research Express* 1(1), 015202, 2014
- 41) Ktena, A., Davino, D., Visone, C., Hristoforou, E., Stress dependent vector magnetic properties in electrical steel, *Physica B: Condensed Matter* 435, pp. 25-27, 2014
- 42) Ktena, A., Hristoforou, E., Gerhardt, G.J.L., (...), Rodrigues Jr., D.L., Alberteris-Campos, M., Barkhausen noise as a microstructure characterization tool, *Physica B: Condensed Matter* 435, pp. 109-112, 2014
- 43) Karagiovanaki, S., Christopoulos, A., Zoumpoulakis, L., Hristoforou, E., Inductive method of monitoring plastic deformation on boat shafting systems based on magnetic composites, *Sensor Letters* 12(9), pp. 1368-1371, 2014
- 44) Konstantopoulos, S., Christopoulos, A., Schledjewski, R., Hristoforou, E., Using glass covered magnetic micro-wire composites in fiber reinforced polymeric composites for aeronautical applications, *Sensor Letters* 12(9), pp. 1408-1413, 2014
- 45) Konstantopoulos, S., Potirakis, S., Christopoulos, A., Schledjewski, R., Hristoforou, E., Glass covered magnetic micro-wires operating in the domain wall nucleation and propagation sensing mode for stress detection in FRP composite structures, *Sensor Letters* 12(10), pp. 1481-1487, 2014
- 46) Ioakeimidis, E.K., Kytopoulos, V.N., Hristoforou, E., Investigation of magnetic, mechanical and microfailure behavior of ARMCO-type low carbon steel corroded in 3.5% NaCl-aqueous solution, *Materials Science and Engineering A* 583, pp. 254-260, 2013
- 47) Antipas, G.S.E., Statharas, E., Tserotas, P., Papadopoulos, N., Hristoforou, E., Experimental and first-principles characterization of functionalized magnetic nanoparticles, *ChemPhysChem* 14(9), pp. 1934-1942, 2013
- 48) Petrou, J., Skafidas, P., Hristoforou, E., Electronic toll and road traffic monitoring system using 3-D field AMR sensors, *Sensor Letters* 11(1), pp. 91-95, 2013
- 49) Ktena, A., Hristoforou, E., Stress dependent magnetization and vector Preisach modeling in low carbon steels, *IEEE Transactions on Magnetics* 48(4), 6172345, pp. 1433-1436, 2012
- 50) Christopoulos, A., Hristoforou, E., Tsamasphyros, G., Strain sensing capabilities of iron/epoxy composites, *Smart Materials and Structures* 21(8), 085030, 2012
- 51) Tsikourkitoudi, V.P., Koumoulos, E.P., Papadopoulos, N., Hristoforou, E., Charitidis, C.A., Growth, structural and mechanical characterization and reliability of chemical vapor deposited Co and Co<sub>3</sub>O<sub>4</sub> thin films as candidate materials for sensing applications, *Journal of Optoelectronics and Advanced Materials* 14(1-2), pp. 169-175, 2012
- 52) Dufay, B., Saez, S., Cordier, C., (...), Hristoforou, E., Ubizskii, S., 2D hybrid yttrium iron garnet magnetic sensor noise characterization, *IEEE Sensors Journal* 11(12), 5873114, pp. 3211-3215, 2011
- 53) Papadopoulos, N., Karayianni, C.-S., Tsakiridis, P., Sarantopoulou, E., Hristoforou, E., Effects of MOCVD thin cobalt films' structure and surface characteristics on their magnetic behavior, *Chemical Vapor Deposition* 17(7-9), pp. 211-220, 2011
- 54) Papadopoulos, N.D., Karayianni, H.S., Tsakiridis, P.E., (...), Sarantopoulou, E., Hristoforou, E., MOCVD cobalt oxide deposition from inclusion complexes: Decomposition mechanism, structure, and properties, *Journal of the Electrochemical Society* 158(1), pp. P5-P13, 2011



- 55) Piotrowski, L., Augustyniak, B., Chmielewski, M., Hristoforou, E.V., Kosmas, K., Evaluation of barkhausen noise and magnetoacoustic emission signals properties for plastically deformed armco iron, *IEEE Transactions on Magnetics* 46(2),5393171, pp. 239-242, 2010
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- 57) Mamalis, A.G., Hristoforou, E., Theodorakopoulos, I.D., Prikhna, T., Critical current density investigations of explosively compacted and extruded powder-in-tube MgB<sub>2</sub> superconductors, *Superconductor Science and Technology* 23(9),095011, 2010
- 58) Papadopoulos, N.D., Karayianni, H.S., Tsakiridis, P.E., Perraki, M., Hristoforou, E., Cyclodextrin inclusion complexes as novel MOCVD precursors for potential cobalt oxide deposition, *Applied Organometallic Chemistry* 24(2), pp. 112-121, 2010
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- 60) Petridis, C., Dimitropoulos, P.D., Hristoforou, E., New magnetic field sensor based on combined flux-gate/Hall-effect arrangement, *IEEE Sensors Journal* 9(2),4749399, pp. 128-134, 2009
- 61) Mamalis, A.G., Hristoforou, E., Manolacos, D.E., (...), Theodorakopoulos, I., Kouzilos, G., Explosively consolidated powder-in-tube MgB<sub>2</sub> superconductor aided by post-thermal treatment, *IEEE Transactions on Applied Superconductivity* 19(1),4738430, pp. 20-27, 2009
- 62) Mamalis, A., Hristoforou, E., Magnetostrictive behaviour of ribbons and wires: Analytical modelling and experimental validation, *Journal of Optoelectronics and Advanced Materials* 11(1), pp. 45-55, 2009
- 63) Papadopoulos, N.D., Illekova, E., Karayianni, H.S., Hristoforou, E., Synthesis and characterization of cobalt precursors for the growth of magnetic thin films by the MOCVD method, *Journal of Optoelectronics and Advanced Materials* 10(5), pp. 1098-1102, 2008
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- 65) Krimpalis, S., Papadopoulos, N., Efthimiadis, K.G., Karagianni, C.S., Hristoforou, E., Magnetic properties in red mud after thermal treatment, *Journal of Optoelectronics and Advanced Materials* 10(5), pp. 1085-1088, 2008
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- 67) Mamalis, A.G., Hristoforou, E., Manolacos, D.E., (...), Theodorakopoulos, J.D., Kouzilos, G., Explosive compaction and synthesis of MgB<sub>2</sub> superconductor using the powder in tube technique, *Journal of Optoelectronics and Advanced Materials* 10(5), pp. 1000-1004, 2008
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- 69) Hristoforou, E., Kosmas, K., Kollár, M., Surface magnetic nondestructive evaluation using a permeability sensor based on the MDL technique, *Journal of Electrical Engineering* 59(7 SUPPL), pp. 90-93, 2008
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### C. International Patents

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