

Curriculum Vitae

1. Personal Data

Name : Eleni Efthimiadou
Futher's Name : Konstantinos
Workplace : Ass. Prof. in Inorganic Chemistry, National and Kapodistrian University of Athens
Place of birth : Larisa, Greece
Nationality : Greek
e-mail : efthim@chem.uoa.gr

2. Academic Career Description

I completed my MSc and PhD at the University of Athens (Greece) in the domain of Chemistry and I deal with the synthesis, characterization and biological evaluation of organic and inorganic compounds and I was founded by the NCSR "Demokritos" during my PhD. The synthetic compounds, organic or inorganic, had been biological evaluated as potential new drugs, MRI contrast agents, antimicrobials and anticancer. After that, I am working for 3 years as a postdoctoral fellow at the Institute of Sol-Gel Laboratory, Institute for Advanced Materials, Physicochemical processes, Nanotechnology & Microsystems, of NCSR "Demokritos" in Athens, Greece, where I am working in the domain of Nanotechnology us potential Drug Delivery Systems (DDS).

In July 2009 I started my postdoc research at the group of Prof. Dr. George Kordas at the. The characterization of the fabricated NCs is on the one hand morphological by electron microscopy (Scanning, SEM and Transmittance TEM) and on the other hand structural by FT-IR, RAMAN. Furthermore, I contributed to the discovery of new multiple stimuli NCs based on biocompatible polymers (Polymethacrylates) and metallic NPs (Fe₃O₄ and gold nanoparticles) for targeted therapy and diagnosis, working on an IDEAS program founded by Dr. G. Kordas. The multi-stimuli NCs have investigated about their desired behavior in vitro, acidic pH conditions, Glutathione existence and temperature difference, which are prevailing in the tumor area. A second MSc was acquired in the domain of Chemistry, in the

field of Catalysis and Environmental Chemistry, in The Open University of Greece, Patra, Greece.

In July 2009 I started my postdoc research at the group of Prof. Dr. George Kordas at the Sol-Gel Laboratory, Institute for Advanced Materials, Physicochemical processes, Nanotechnology & Microsystems, NCSR "Demokritos" following a competitive process. I started my postdoc research in the field of Nanobiopharmaceutics within the group of Dr. G. Kordas who was one of the pioneers in the field of nanostructures. Dr. G. Kordas is recipient of an Advanced Grand ERC program named: IDEAS – NANOTHERAPY", a novel nano-container drug carrier for targeted treatment of prostate cancer. During this period, I worked in the development of new synthetic methods for Nanocontainers fabrication and their characterization and biological evaluation. In his laboratory, I successfully developed an efficient method to fabricate smart polymeric nanocontainers (NCs) based on their functionalization. The fabricated NCs exhibit different sensitivities such as pH, Thermo and Redox or combination of them. The NCs were modified with Magnetic Nanoparticles (MNPs) with target moieties, peptides and small molecules as well as coated with different biocompatible (polyethylene Glycol, PEG) and biodegradable polymers (Polylactic Acid, PLA). I also work on the polysaccharides as advanced coated material inducing specific pH, Thermo and Redox properties in this domain. I have experience in peptidic synthesis in solid phase and in the solution also. In this laboratory, I advanced my skills to characterize the fabricated NCs both, structural and morphological. For the NCs characterization, I learn to use and to estimate the result of the X-ray diffraction (XRD), Scanning and Transmission electron microscopy (SEM & TEM), thermogravimetric analysis (TGA) and others. The biological evaluation takes place using MTT & Trypan Blue assays in different cancer cell lines. During this period, I have published 46 papers, in the majority of which I am a co-corresponding author. I have co-authored three book chapters. I am a co-supervisor of 8 master and 4 Ph.D. candidates. I am the national representative (member) of the cost actions Radiomag TD-1402 and COST CA15107 MultiComp. During 2016 elected as Ass. Prof. in Inorganic Chemistry, at Chemistry department of University of Athens.

3. Academic Qualifications

2005-2010 : Master in Catalysis and Environmental Chemistry, Department of Natural Sciences

2006-2009 : Doctor of Philosophy (Ph.D), Synthesis and characterization of complexes with medical and medicinal applications.

2004-2006 : Master in Chemistry, Department of Natural Sciences, University of Athens in Greece.

1999-2004 : Diploma in Chemistry, Department of Natural Sciences, University of Athens in Greece.

1998 : Higher school certificate (2nd High School of Farsala, Larisa, Greece).

4. Scholarships

2006 : Scholarship from the Institute of Physical Chemistry of the NCSR "Demokritos" for postgraduate studies (PhD thesis).

5. Program Experience -Funding

1-3-04 to 30-6-04: Research in Paramagnetic Organometallic Compounds of Rare Earth Elements and study of these compound in health, Program Frame: "E-1094"

2007 -2009 : Research in MRI Contrast Agents, Program Frame: «PEP Attikis, 1.2, Action 1.2.1».

2007-2009 : Research in Drug Delivery Systems, "Nanoscale Functionalities for Targeted Delivery of Biopharmaceutics", 'NMP' INTEGRATED PROJECT, Contract No. NMP4-CT-2006-026723. European Union Program Frame.

2009-2013 : Research in Nanobiopharmaceutics, "IDEAS –NANOTHERAPY". A novel nano-container drug carrier for targeted treatment of prostate cancer.

2013-2015 : ERC PoC: A Novel Nanocontainer drug carrier for targeted treatment of cancer

2014-2016 : Marine Paint: Collaboration 2011 Novel Self-Healing Eco-friendly Coatings with Antifouling and Anticorrosion Properties for Maritime Applications

2014-2016: Colonovrec:Greek-China 2012 "Linear-focus concentrating solar collector based on a novel receiver -Development and demonstration"

2014-2016: PABET 2013: Interior wall protection technology development for water heaters with Sol-Gel method

2016-2017: Establishing a multidisciplinary and effective innovation and entrepreneurship hub.

2016-2017 : Laboratory of physicochemical analysis, sol-gel lab, NCSR D.

6. Teaching Experience

2012- 2014 : Seminar in the Master class of the National Technical University of Athens, School of Chemical Engineering, of Material Science and Engineering Section.

2004-2009 : University of Athens, Chemistry Department, laboratory assistant.

2004-20016 : Sivitanidios School in the domain of technical in medicals, cosmetics and similar products.

7. Thesis Supervision

2010-2014: Supervisor of the PhD candidate Chris Tapeinos, Institute for Advanced Materials, Physicochemical processes, Nanotechnology & Microsystems in collaboration with Materials Science Department, University of Patras, Greece.

2010-2012: Supervisor of the PhD candidate Katerina Metaxa, Organic Chemistry, University of Athens, Department of Chemistry, in collaboration with NCSR Demokritos.

2010-2011: Supervisor of the BSc student Nicoleta Vlachou, National Technical University of Athens, School of Chemical Engineering, of Material Science and Engineering Section.

2010-present: Supervisor of the PhD candidate Anastasia Galani, Bio-Inorganic Chemistry, University of Athens.

2010-2012 : Supervisor of the MSc student Katerina Metaxa, Organic Chemistry, University of Athens, Department of Chemistry. Diploma Thesis: *Polymeric Systems as anticancer drug carriers*, in collaboration with NCSR Demokritos.

2010-2013 : Supervisor of the Phd student Tapeinos Chris, in collaboration with NCSR Demokritos in the domain of drug delivery systems.

2014 : Supervisor of the under degree student Maria Theodosiou, Gold Nanoparticles: synthesis, characterization and biological investigation, in collaboration with University of Athens, Dr. Mitsopoulou, in the domain of Inorganic chemistry.

2012-2016 : Supervisor of the PhD student Katerina Metaxa, Organic Chemistry, University of Athens, Department of Chemistry. Diploma Thesis: *Polymeric Systems as anticancer drug carriers*, in collaboration with NCSR Demokritos.

2014-2016 : Supervisor of the MSc students Maria Theodosiou, Margarita Kakava, Maria Nikolaou, Inorganic Chemistry, University of Athens, Department of Chemistry. Diploma Thesis in collaboration with NCSR Demokritos.

8. Publications – Conference participation

- Number of Publications in peer-reviewed journals (January 2016): 42
- Non self-citations (Jan. 2016): 1112 (ISI, Scopus)
- h-index (February 2014): 18
- Number of presentations in national and international conferences: 45
- Number of oral presentations to international conferences: 15

9. Journal Reviewer

- Journal of Nanoparticle research
- European journal of Medicinal Chemistry
- Materials Science and Engineering C
- Journal of Surfaces and Interfaces B: Biointerfaces
- Journal of materials science and engineering C
- Inorganica Chimica Acta
- Polyhedron

- Colloids and interface science: Biointerfaces

Early Achievement-Track-Record

I have published 40 papers in the *Journal of Inorganic biochemistry* (7), *Journal of Bioorganic and Medicinal Chemistry Letters* (4), *Medicinal Chemistry* (1), *Polyhedron* (4) *Inorganica Chimica Acta* (2) and *Materials Chemistry B* (1). Additionally I have already one paper under major revision and two under revision. Subsequently, I have worked in 4 scientific programs concerning medicinal applications.

10. Awards

It is important to mention here that I have received a prestigious *scholarship* by NCSR 'Demokritos' which one receives after a stringiest evaluation of the candidates via examination in physics, chemistry and mathematics. Only the best students scoring very high grades are considered receiving this award providing funding will be available.

Additionally, my paper entitled:

Crystal structure, spectroscopic, and biological study of the copper(II) complex with third-generation quinolone antibiotic sparfloxacin was awarded as **the most cited paper** in the 2006-2009 period of the *Journal of Bioorganic and Medicinal Chemistry Letters*.

My work on the MRI contrast agents gains the second award at the Conference of Medicinal Chemistry as promising derivatives for MRI application.

Second place Award for better poster presented at *The 9th Conference of Medicinal Chemistry: Drug Discovery and Design*. March 26-28, 2008. University of Patras, Patras, Greece. «New Contrast Agents for Magnetic Resonance Imaging Targeting Cancer Cells».

My work Smart Nanoparticles as new Drug Delivery Systems: Bioapplications, was selected as the **first awarded** presentation in the International conference: from nanoparticles and nanomaterials to nanodevices and nanosystems. Crete, Greece, 26-29 June, IC4N 2011 receiving 1000 \$. She is awarded as one of the best Women in Science by L' Oreal-Unesco institution

I had collaborated with:

Dr. Dionisios Vourloumis

Researcher A', Chemical Biology Laboratory, Institute Of Physical Chemistry, NCSR "Demokritos"

Dr. George Psomas

Department of General and Inorganic Chemistry, Faculty of Chemistry, Aristotle University Of Thessaloniki, Greece.

Dr. N. Katsaros

Researcher A', Chemical Biology, Institute Of Physical Chemistry, NCSR "Demokritos".

Dr. K. Palaios

Researcher A', Chemical Biology, Institute Of Physical Chemistry, NCSR "Demokritos".

Pr. Alexandra Karaliota

Department of General and Inorganic Chemistry, Faculty of Chemistry, National University Of Athens, Greece.

Pr. Constantinos Charitidis

National Technical University of Athens, School of Chemical Engineering, Director of Material Science and Engineering Section.

Dr. Stratikos

Senior Researcher, Institute of IRRP, NCSR "Demokritos".

11. Publications in peer-reviewed journals

1. **Efthimiadou E.K.**, Sanakis Y., Katsarou M., Raptopoulou C.P., Karaliota A., Katsaros N. and Psomas G. Neutral and Cationic Mononuclear Copper(II) Complexes with Enrofloxacin: Structure and Biological Activity. *J. Inorg. Biochem.* **2006**, 100(8), 1378-88.
2. **Efthimiadou E.K.**, Sanakis Y., Raptopoulou K, Karaliota A., Katsaros N and Psomas G. Crystal Structure, Spectroscopic and Biological Study of the Copper(II) Complex with Third-Generation Quinolone Antibiotic Sparfloxacin. *Bioorg Med Chem Lett.* **2006**, 16(14):3864-7.
3. George Psomas, Alketa Tarushi, **Efthimiadou E.K.**, Yiannis Sanakis, Catherine P. Raptopoulou, Nikos Katsaros. Synthesis, Structure and Biological Activity of Copper(II) Complexes with Oxolinic Acid. *J. Inorg. Biochem.* **2006**, 100(11), 1764-1773.
4. **Efthimiadou E.K.**, Hellinida Thomadaki, Yiannis Sanakis, Catherine P. Raptopoulou, Nikos Katsaros, Andreas Scorilas, Alexandra Karaliota, George L.Psomas. Structure and biological properties of the copper(II) complex with the quinolone antibacterial drug N-propyl-norfloxacin and 2,2'-bipyridine. *J. Inorg. Biochem.* **2007**, 101, 64-73.
5. **Efthimiadou E.K.**, Yiannis Sanakis, Nikos Katsaros, Alexandra Karaliota, George L Psomas. Transition metal complexes with the quinolone antibacterial agent pipemidic acid: Synthesis, characterization and biological activity. *Polyhedron* **2007**, 26(5), 1148-1158.
6. **Efthimiadou E.K.**, George L. Psomas, Yiannis Sanakis, Nikos Katsaros, Alexandra Karaliota. Metal complexes with the quinolone antibacterial agent N-propyl-norfloxacin: Synthesis, structure and bioactivity. *J. Inorg. Biochem.* **2007**, 101(3), 525-535.
7. **Efthimiadou E.K.**, Nikos Katsaros, Alexandra Karaliota, George Psomas*. Synthesis, characterization, antibacterial activity, and interaction with DNA of the vanadyl-enrofloxacin complex. *Bioorg. Med. Chem. Lett.* **2007**, 17(5), 1238-1242.
8. **Efthimiadou E.K.**, Nikos Katsaros, Alexandra Karaliota, George Psomas*. Mononuclear copper(II) complexes with quinolones and nitrogen-donor heterocyclic ligands: Synthesis, characterization, biological activity and interaction with DNA. *Inorganica Chimica Acta.* **2007**, 360(15), 4093-4102.
9. Alketa Tarushi, **Efthimiadou E.K.**, Petros Christofis, George Psomas. Neutral mononuclear dioxomolybdenum(VI) and dioxouranium(VI) complexes of oxolinic acid: characterization and biological evaluation. *Inorganica Chimica Acta.* **2007**, 360(14), 3978-3986.
10. Maria E. Katsarou, **Efthimiadou E.K.**, George Psomas and Dionisios Vourloumis*. A Novel Copper(II) Complex of N-propyl-norfloxacin and 1,10-

- phenanthroline with enhanced Antileukemic and DNA nuclease activities. *Journal of Medicinal Chemistry*. **2008**, 51(3). 470-478.
11. **Efthimiadou E.K.**, Karaliota A., Psomas G*. Mononuclear dioxomolybdenum(VI) complexes with the quinolones enrofloxacin and sparfloxacin: Synthesis, structure, antibacterial activity and interaction with DNA. *Polyhedron*. **2008**, (1), 349-356.
 12. Psomas G*, Alketa Tarushi, **Efthimiadou E.K.** Synthesis, characterization and DNA-binding of the mononuclear dioxouranium(VI) complex with ciprofloxacin. *Polyhedron*. **2008**, 27(1), 133-138.
 13. **Efthimiadou E.K.**, Katarou M.E., Karaliota A., Psomas G*. Copper(II) complexes with sparfloxacin and nitrogen-donor heterocyclic ligands: Structure-activity relationship. *J. Inorg. Biochem.* **2008**, 102(4), 910-920.
 14. **Efthimiadou E.K.**, Karaliota A., Psomas G*. Mononuclear metal complexes of the second-generation quinolone antibacterial agent enrofloxacin: Synthesis, structure, antibacterial activity and interaction with DNA. *Polyhedron*. **2008**, 27(6), 1729-1738.
 15. **Efthimiadou E.K.**, Karaliota A., Psomas G*. Structure, antimicrobial activity and DNA-binding properties of the Cobalt(II)-sparfloxacin complex. *Bioorg. Med. Chem. Lett.* **2008**, 18, 4033-037.
 16. **Eleni K. Efthimiadou**, Maria E. Katsarou, Michael Fardis, Christos Zikos, Emmanuel N. Pitsinos, Athanasios Kazantzis, Leondios Leondiadis, Marina Sagnou, Dionisios Vourloumis. Synthesis and characterization of novel natural product-Gd(III) MRI contrast agent conjugates. *Bioorg. Med. Chem. Lett.* **2008**. 18 (23), 6058-6061.
 17. Kalliopi C. Skyrianou, **Eleni K. Efthimiadou**, Vasilis Psycharis, Aris Terzis, Dimitris P. Kessiosoglou, Gerge Psomas. Nickel-quinolones interaction. "Part 1- Nickel(II) complexes with the antibacterial drug sparfloxacin: Structure and biological properties". *J. Inorg. Biochem.* **2009**, 103, (12), Pages 1617-1625.
 18. **Eleni K. Efthimiadou***, Alexandra Karaliota, George Psomas. "Metal complexes of the third-generation quinolone antimicrobial drug sparfloxacin: Structure and biological evaluation". *J. Inorg. Biochem.* **2010**, 104, (4), Pages 455-466.
 19. Chatzipavlidis A., Bilalis P., **Efthimiadou E.K.**, Boukos N., and Kordas G. Sacrificial Template-Directed Fabrication of Superparamagnetic Polymer Microcontainers for pH-Activated Controlled Release of Daunorubicin. *Langmuir*, **2011**, 27 (13) pp. 8478–8485.
 20. **Efthimiadou, E.K.**, Tapeinos, C., Bilalis, P., Kordas*, G. New approach in synthesis, characterization and release study of pH-sensitive polymeric micelles, based on PLA-Lys-*b*-PEGm, conjugated with doxorubicin. *Journal of Nanoparticle Research* **2011**, 13 (12) , pp. 6725-6736.
 21. Metaxa A.-F., **Efthimiadou E.K.**, Boukos N., Kordas* G. Polysaccharides as Source of Advanced Materials: Cellulose Hollow Microspheres for drug delivery in cancer therapy, *Journal of Colloid and Interface Science* **2012**, 384 (1), 198-206.

22. Bilalis, P., **Efthimiadou, E.K.**, Chatzipavlidis, A., Boukos, N., Kordas, G.C. Multi-responsive polymeric microcontainers for potential biomedical applications: Synthesis and functionality evaluation, *Polymer International*, **2012**, 61 (6), 888-894
23. **Efthimiadou, E.K.**, Tziveleka, L.-A., Bilalis, P., Kordas*, G. Novel PLA modification of organic microcontainers based on ring opening polymerization: Synthesis, characterization, biocompatibility and drug loading/release properties, *International Journal of Pharmaceutics*, **2012**, 428 (1-2), pp. 134-142.
24. Angelopoulou, A., **Efthimiadou, E.K.**, Kordas, G. Dextran modified pH sensitive silica hydro-xerogels as promising drug delivery scaffolds, *Materials Letters*, **2012**, 74, 50-53
25. Tapeinos C., **Efthimiadou* E.K.**, Boukos N., Koklioti A., Charitidis C., Kordas* G. Microspheres as therapeutic delivery agents: Synthesis and Biological evaluation of pH responsiveness. *Journal of Materials Chemistry B*. **2013**, 1 (2), 194-203.
26. Georgiadou D, Stamatakis K, **Efthimiadou E.K.**, Kordas G., Gantz D., Chroni A, Stratikos S. Thermodynamic and structural destabilization of apolipoprotein E3 by hereditary mutations associated with the development of Lipoprotein Glomerulopathy, *Journal of Lipid Research*, **2013**, 54 (1), 164-176.
27. Kainourgios, P., **Efthimiadou* E.K.**, Tziveleka, L.-A., Pappas, G.S., Boukos, N., Kordas, G. Comparative study of LbL and crosslinked pH sensitive PEGylated LbL microspheres: Synthesis, characterization and biological evaluation, *Colloids and Surfaces B: Biointerfaces* 104, **2013**, 91-98.
28. Kordas, G.C., Balaskas, A.C., Kartsonakis, I.A., **Efthimiadou, E.K.**, A Raman study of 8-Hydroxyquinoline release from loaded TiO₂ nanocontainer, **2013**, *International Journal of Structural Integrity*
29. **Efthimiadou, E.K.**, Tapeinos, C., Chatzipavlidis, A., Boukos, N., Fragozeorgi, E., Palamaris, L., Loudos, G., Kordas, G. Dynamic *in vivo* imaging of dual-triggered microspheres for sustained release applications: Synthesis, characterization and cytotoxicity study. *International Journal of Pharmaceutics* Volume 461, Issue 1-2, **2014**, 54-63
30. **Efthimiadou, E.K.**, Tapeinos, C., Tziveleka, L.-A., Boukos, N., G., Kordas, G. pH- and Thermo- Responsive Microcontainers as Potential Drug Delivery Systems: Morphological characteristic, Release and Cytotoxicity Studies. *Materials Science and Engineering C*, **2014**, 37 (1), 271 – 277
31. Angelopoulou, A., **Efthimiadou, E.K.**, Boukos, N., Kordas, G. A new approach for the one-step synthesis of bioactive PS vs. PMMA silica

- hybrid microspheres as potential drug delivery systems., *Colloids and Surfaces B: Biointerfaces*. **2014**, 117, 322-329
32. Metaxa, A.-F., Efthimiadou, E.K., Boukos, N., Fragogeorgi, E.A. Loudos, G., Kordas, G. Hollow microspheres based on - Folic acid modified - Hydroxypropyl Cellulose and synthetic multi-responsive biocopolymer for targeted cancer therapy: Controlled release of daunorubicin, in vitro and in vivo studies, *Journal of Colloid and Interface Science*, **2014**, 435, 171-181.
 33. Mitrikas, G., Efthimiadou, E.K., Kordas, G. Extending the electron spin coherence time of atomic hydrogen by dynamical decoupling. *Physical Chemistry Chemical Physics*, **2014**, 16 (6), 2378 – 2383.
 34. Tsiapa, I., Efthimiadou, E.K., Fragogeorgi, E., Loudos, G., Varvarigou, A.D., Bouziotis, P., Kordas, G.C., Mihailidis, D., Nikiforidis, G.C., Xanthopoulos, S., Psimadas, D., Paravatou-Petsotas, M., Palamaris, L., Hazle, J.D., Kagadis, G.C, 99mTc-labeled aminosilane-coated iron oxide nanoparticles for molecular imaging of $\alpha\beta 3$ -mediated tumor expression and feasibility for hyperthermia treatment., *Journal of Colloid and Interface Science*, **2014**, 433, 163-175.
 35. Galani, A., Efthimiadou, E.K., Mitrikas, Sanakis, Y., Psycharis, V., Raptopoulou, C., G., Kordas, G., Karaliota, A. Synthesis, crystal structure and characterization of three novel copper complexes of Levofloxacin. Study of their DNA binding properties and biological activities, **2014**, *Inorganica Chimica Acta*, 423, PART A, 207-218
 36. Galani, A., Efthimiadou, E.K., Theodosiou, T., Kordas, G., Karaliota, A. Novel levofloxacin zinc (II) complexes with N-donor heterocyclic ligands, as potential fluorescent probes for cell imaging: Synthesis, structural characterization and in vitro cytotoxicity, *Inorganica Chimica Acta*, **2014**, 423 (PB), 52-59
 37. Metaxa, A.-F., Efthimiadou, E.K., Kordas, G., Cellulose-based drug carriers for cancer therapy: Cytotoxic evaluation in cancer and healthy cells, *Materials Letters*, **2014**, 132, 432-435
 38. Fragogeorgi, E.A., Savina, I.N., Tsotakos, T., Efthimiadou, E.K., Xanthopoulos, S., Palamaris, L., Psimadas, D., Bouziotis, P., Kordas, G., Mikhalovsky, S., Alavijeh, M., Loudos, G., Comparative in vitro stability and scintigraphic imaging for trafficking and tumor targeting of a directly and a novel 99mTc(I)(CO)₃ labeled liposome. *International Journal of Pharmaceutics*, **2014**, 465, 1-2, 333-346.
 39. Angelopoulou, A., Efthimiadou, E.K., Kordas, G., A new approach to fabricate bioactive silica binary and ternary hybrid microspheres, *Materials Science and Engineering C*, **2015**, 53, 76-82.
 40. Efthimiadou, E.K., Metaxa, A.F., Kordas, G.K., Enhanced cytotoxicity by using multi stimuli nanocontainers activated by hyperthermia, *Materials letter*, **2016**, under evaluation.

41. Angelopoulou, A., Efthimiadou, E.K., Kordas, G., Synthesis of novel quaternary silica hybrid bioactive microspheres, Powder Technology, **2016**, under evaluation.
42. Metaxa, A.F., Efthimiadou, E.K., Kordas, G.K. Synthesis of colloidal delivery vehicles based on modified polysaccharides for biomedical applications, Colloid and Interface Science Communications, 13, **2016**, 14-18.
43. Tapeinos, C., Efthimiadou, E.K., Boukos N., Kordas G. Sustained release profile of quatro stimuli nanocontainers as a multi sensitive vehicle exploiting cancer characteristics, Colloids and Surfaces B: Biointerfaces, 148, **2016**, 95-103.
44. Angelopoulou, A., Efthimiadou, E.K. Kordas, G. Synthesis of novel quaternary silica hybrid bioactive. Journal of Biomedical Materials Research - Part B Applied Biomaterials,
45. Krokidis, M.G., Terzidis, M.A., Efthimiadou, E., Kletsas, D., Chatgililoglu, C. Purine 5',8-cyclo-2'-deoxynucleoside lesions: formation by radical stress and repair in human breast epithelial cancer cells 2017 Source of the Free Radical Research, **2017**, 1-13, Article in press.
46. Efthimiadou, E.K. Email Author, Fragogeorgi, E., Palamaris, L., Karampelas, T., Lelovas, P., Loudos, G., Tamvakopoulos, C., Kostomitsopoulos, N., Kordas, G., Versatile quarto stimuli nanostructure based on Trojan Horse approach for cancer therapy: Synthesis, characterization, in vitro and in vivo studies, Materials Science and Engineering C, 79, **2017**, 605-612.

Total number of Papers : 46

h-Index: 19

Citations: 1307

12. Publications in peer-reviewed journals

- 1. Self-Healing Coatings for Corrosion Protection of Metals-The Sol-Gel Handbook - Synthesis, Characterization, and Applications: Synthesis, Characterization and Applications, 3-Volume Set**, George Kordas and Eleni K. Efthimiadou, **2015**, doi:10.1002/9783527670819.ch44.
- 2. Polysaccharides: Bioactivity and Biotechnology, Modified polysaccharides for drug delivery** (Book Chapter) Efthimiadou, E.K., Metaxa, A.F., Kordas, G.K., **2015**, pp. 1805-1835.
- 3. Handbook of Small Animal Imaging: Preclinical Imaging, Therapy, and Applications Hardcover – September**, by George C. Kagadis (Editor), Nancy L. Ford (Editor), George K. Loudos (Editor), Dimitrios Karnabatidis (Editor), **2015**, ISBN-13: 978-1466555686 ISBN-10: 1466555688. Efthimiadou E.K., Kordas G., Book Chapter 17, Molecular targets and optical probes.

13. Invited presentations to peer-reviewed, internationally established conferences

- *Paramagnetism in Drug Delivery Systems: Bioapplications*. 4th North America-Greece-Cyprus Workshop on Paramagnetic Materials, 14-18 June 2011, Patras, Greece. (15 min)
- Smart Nanoparticles as new Drug Delivery Systems: Bioapplications, IC4N, 26-29 June, 2011, Crete, Greece.
- *Multi responsive targeting microcontainers as drug delivery systems: Release and cytotoxicity studies*. Nano 2012 XI International Conference on Nanostructured Materials, 26-31 August 2012, Rhodes, Greece.
- In-vitro release study and dynamic in-vivo imaging of pH- and Magnetic field sensitive hybrid microspheres. Eleni Efthimiadou, NCSR Demokritos, Greece. International Conference on Nanotheranostics (ICoN 2013), 27-29 September, 2013, Cyprus.
- *Quatro Stimuli Microspheres as a Versatile Drug Delivery System: Release Properties, In-vivo and In-vitro Study*. 6th North America-Greece-Cyprus Workshop on Paramagnetic Materials, 3-6 June 2015, Athens, Greece. (15 min)
- *Quatro targeted Stimuli Nanocontainers: In-vitro and in vivo stud*, Efthimiadou Eleni, Eleni Efthimiadou, NCSR Demokritos, Greece. International Conference on Nanotheranostics (ICoN 2015), 29-1 November, 2015, Cyprus.
- In vitro and in vivo application of hyperthermia against glioblastoma by using modified iron NPS. 1st Workshop on Synthesis and functionalisation of magnetic nanoparticles for hyperthermia and radiotherapy UCL, London, 21st and 22nd April, 2016, (15 min).

14. Cost Actions Invited presentations to peer-reviewed, internationally established conferences

Multifunctional Nanoparticles for Magnetic Hyperthermia and Indirect Radiation Therapy (RADIOMAG)-TD1402, 01/07/2014-18.

http://www.cost.eu/COST_Actions/TDP/Actions/TD1402

15. Associated Spin-off Companies

The research activities gave the birth to one Spin off company named Nano4Chem

16. Patents

1. George Kordas, Eleni Efthimiadou, Multi-responsive targeting drug delivery systems for controlled-release pharmaceutical formulation WO 2015074762 A1. WIPO Patent Application **WO/2015/074762**.

2. Λειτουργικά αποκρινόμενα σε πολλαπλά ερεθίσματα πολυμερικά νανοδοχεία-μικροδοχεία ως συστήματα μεταφοράς φαρμάκων. Αρ. διπλώματος Ευρεσιτεχνίας: **1007882**
3. Επιφανειακά Τροποποιημένα πολλαπλώς αποκρινόμενα σε ερεθίσματα νανο/μικρο-δοχεία ως φορείς φαρμάκων για στοχευμένη θεραπεία διαφόρων μορφών καρκίνου. Αρ. διπλώματος Ευρεσιτεχνίας: **100654**