ELENI K. EFTHIMIADOU

ASSOCIATE PROFESSOR

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EDUCATION

2004 B.Sc. in Chemistry, NKUA

2006 M.Sc. in Inorganic Chemistry and Technology; Department of Chemistry, NKUA. Title: "Studyofthestructureandbiologicalactivityof Cu-complexes with antimicrobial drugs with spectroscopic techniques"

2009 Ph.D. in Chemistry; Department of Chemistry, NKUA. Title: "Synthesis and characterization of complexes with medical and medicinal applications"

RESEARCH INTERESTS

(i) Metal complexes; (ii) Bioinorganic chemistry; (iii) metallic nanoparticles, (iv) hybrid nanoparticles; hyperthermia, phototherapy, (v) Biological evaluation, cytotoxicity, westernblot, flow cytometry, inverted and fluorescent microscope, PCR.

ACADEMIC POSITIONS HELD

10/2021-current	Associate Professor, Department of Chemistry, NKUA, Greece
8/2017-10/2021	AssistantProfessor, Department of Chemistry, NKUA, Greece
2009-20176	Research Associate, Institute of Nanoscience and Nanotechnology, NCSR Demokritos.

TEACHING

UNDERGRADUATE COURSES

Materials Chemistry, Department of Chemistry 2017-now.
General and Analytical Chemistry, Department of Biology2017-now
Laboratory of General and Analytical Chemistry, Department of Biology.2017-now
Laboratory of Inorganic Chemistry III, Department of Chemistry 2018 -now
Bioinorganic Chemistry, 2022

POSTGRADUATE COURSES

Inorganic Structure and Reactivity, Department of Chemistry.
Inorganic Complexes and Nanomaterials. Applications as Medicines, Cosmetics and Diagnostic Materials

AWARDS

- 2019 6thamongthe 17 youngtopfemalescientistsinGreece
- 2018 2nd Award, Best Oral Presentation, Athens Conference on Advances in Chemistry, Acac2018, Athens, Greece)

- 2016 Best Women in Science, L' Oreal-Unesco institution, Greece about her research on the domain of biosciences for breast and prostate cancer therapy through nanotechnology)
- 2011 1st Award, Smart Nanoparticles as new Drug Delivery Systems: Bioapplications, International conference: from nanoparticles and nanomaterials to nanodevices and nanosystems. IC4N/Crete, Greece, 2011.
- 2009 Award as the most cited paper in the 2006-2009 period of the Journal of Bioorganic and Medicinal Chemistry Letters. "Crystal structure, spectroscopic, and biological study of the Copper(II) complex with third generation quinolone antibiotic sparfloxacin".
- 2nd Award, 9th Conference of Medicinal Chemistry: Drug Discovery and Design. University of Patras, Patras, Greece. «New Contrast Agents for Magnetic Resonance Imaging Targeting Cancer Cells». 9th Conference Medical Chemistry
- 2006 - 2009 Scholarship, Institute of Physical Chemistry/ NCSR Demokritos/Greece

PROJECTS

- 2021-2024: Modulation Certificate for Post Graduate Students Enabled by Blended Learning / IMCert, AL-AZHAR UNIVERSITY (Total: 999.985,00, NKUA: 85.194,00 €), Erasmus+ Capacity Building in Higher Education Call EAC/A02/2019 - Selection Year 2020.
- 2021-2023: Rational design of novel magnetic nanocarriers for targeted vascular therapies (Total: 537,892 NKUA: 142.809,00 €), ERA.Net RUS Plus, Project acronym MAGNA.
- 2021-2023: Development of innovative modified titanium nanoparticles for the decomposition of pollution and the reduction of microbial load (NKUA :383.612,61€), Action of national scope:" research-create-innovate second cycle" competitiveness, entrepreneurship & innovation" (EPANEK).
- 2021 -2021: Development of advanced heat transfer fluids with a temperature range of 100°C-200°C for use in centralized solar energy exploitation systems (NKUA: 10.000,00 €), Research Infrastructure Support Program, Subcontracting of the Laboratory of Solar and other Energy Systems (EHS) of the "Demokritos" Research Center as part of a project financed by the NSRF Research Infrastructures Strengthening Program.
- 2019-2022: Development of innovative antifouling paints without biocides for application in aquaculture (Total: 515.628,24, NKUA 210.613,66 €.
- 2018-2023: Understanding and exploiting the impacts of low pH on micro-organisms (EuroMicropH), COST Action CA18113, https://euromicroph.eu/
- 2018-2023: Cancer Nanomedicine - from the bench to the bedside, Nano2Clinic, COST Action CA17140, http://www.nano2clinic.eu.
- 2017-2020: Hybrid gold and iron oxide nanoparticles (Au@Fe3O4 Nps) with medical applications (Total: NKUA: 27.000 €), Hellenic Foundation for Research and Innovation (H.F.R.I.).
- 2014-2020: Development of innovative nanotechnology through magnetic nanofluids for atherosclerosis, (Total: NKUA: 45.000 €), "Supporting researchers with focus on young researchers - cycle B", NSRF.
- 2014-2018. Multifunctional Nanoparticles for Magnetic Hyperthermia and Indirect Radiation Therapy (RADIOMAG)-TD1402, http://www.cost.eu/COST_Actions/TDP/Actions/TD1402.

PARTICIPATION IN CONFERENCE COMMITTEES

- Member of the Organizing Committee of the AthensConference on Advances in Chemistry, 2022
- Member of Scientificcommitteeof14thPaint Symposium: Research and Technology of paints, Varnishes & Inks "Building a lasting future" Venue: National Technical University of Athens, 2021
- Member of the Organizing Committee of 35o CONFERENCE OF THE EUROPEAN COLLOID & INTERFACE SOCIETY, Athens – Greece, 5-10 September 2021, (Local Organizing Committee, NHRF, Athens)
- Member of the Organizing Committee of theworkshop for GLOBALWOMEN'S BREAKFAST, "Women In Science: Empowering Diversity in Science", 2020
- Member of Scientific committee of 13thPaint Symposium, 2018, Greece.

- Member of the Organizing Committee of the AthensConference on Advances in Chemistry, 2018,Greece.

- Organizer of RadiomagTrainingSchool, "MultifunctionalNanoparticlesforMagneticHyperthermiaandIndirectRadiationTherapy", TD-1402, 2017, Greece.

REFEREE/EDITOR / EDITORIAL BOARD IN INTERNATIONAL JOURNALS

REFEREE

Bioinorganic Chemistry and Applications, Journal of Molecular Structure, Dalton Transactions, New Journal of Chemistry, Journal of Coordination Chemistry, Journal of Chemistry, Green Chemistry, Physical Chemistry Chemical Physics, Catalysts, Journal of the Brazilian Chemical Society, Journal of Sol-Gel Science and Technology, Open Chemistry, Polymers, Powder Technology, RSC Advances, ACS Omega, ACS Applied Materials & Interfaces.

ADDITIONAL INFORMATION

- Publications in referred Journals and special volumes: **78**
- Presentations in Confrerences:>100
- Number of Heterocitations: >2583 h index: **28**
- PhD Thesis supervision: **7**
- MSc. Thesis supervision: **12**
- BSc Thesis supervision: **12**
- Scientist in Charge in **3** Research Projects
- Participation in**5** research Projects and in **3**COST Actions
- Referee for Evaluation of graduate students' applications for funding: **2**

SELECTED PAPERS

1. Iron oxide nanoflowers encapsulated in thermosensitive fluorescent liposomes for hyperthermia treatment of lung adenocarcinoma, Theodosiou, M., Sakellis, E.; Boukos, N.; Kusigerski, V.; Kalska-Szostko, B.; Efthimiadou, E.K., Scientific Reports, 2022, 12(1), 8697, 10.1038/s41598-022-12687-3.
2. Synthesis and in vitro proof-of-concept studies on bispecific iron oxide magnetic nanoparticles targeting PSMA and GRP receptors for PET/MR imaging of prostate cancer, Liolios, C., Koutsikou, T.S., Salvanou, E.-A., Efthimiadou, E.K., Bouziotis, P., International Journal of Pharmaceutics, 2022, 624, 122008.
3. On-Demand Drug Delivery: Recent Advances in Cardiovascular Applications, HaticeGenç, Efthimiadou E.K., and Cicha, I., Front. Drug. Deliv., 2022, Sec. Cardiovascular Drug Delivery, 10.3389/fddev.2022.91322
4. Simulation of Colloidal Stability and Aggregation Tendency of Magnetic Nanoflowers in Biofluids" Name of co-authors: Panagiotis Neofytou, Maria Theodosiou, Marios G. Krokidis and Eleni K. Efthimiadou, Modelling 2022, 3(1), 14-26, 10.3390/modelling3010002.
5. Effects of Aging and Disease Conditions in Brain of Tumor-Bearing Mice: Evaluation of Purine DNA Damages and Fatty Acid Pool Changes, Krokidis, M.G., Prasinou, P., Efthimiadou, E.K., Ferreri, C., Chatgilialoglu, C., Biomolecules, 2022, 12(8), 1075, 10.3390/biom12081075.
6. Bimetallic gold-platinum nanoparticles as a drug delivery system coated with a new drug to target glioblastoma, Stavropoulou, A.P., Theodosiou, M., Sakellis, E., Gobbo, O.L., Efthimiadou, E.K., Colloids and Surfaces B: Biointerfaces, 2022, 214, 112463, 10.1016/j.colsurfb.2022.112463.
7. Synthesis, characterization and evaluation of aqueous Zn-based quantum dots for bioapplications, Papadopoulou, A., Chalmpes, N., Gournis, D., Kostopoulou, N., Efthimiadou, E.K., Dalton Transactions, 2022, 51(9), pp. 3452–3461.

8. Bulk nanobubbles, generation methods, stability mechanisms and applications, Favvas, E.P., Kyzas G.Z., Efthimiadou E. K., Mitropoulos A. Ch., Current Opinion in Colloids and Interface Science, under review, Submitted February 2021, COCIS-D-21-00011.
9. Synthesis, DNA-binding, anticancer evaluation, and molecular docking studies of bis- and tris-heteroleptic Ru-diimine complexes bearing 2-(2-pyridyl)-quinoxaline, Zarkadoulas, A., BalouKoukouvitaki, M., Luciano M., Efthimiadou, E. K., Mitsopoulou C. A., Bioinorganic Chemistry and Applications, 2021, Under review,
10. Core/Shell Au/Pt nanoparticles as a potential drug delivery system enhancing the optical and anticancer activity, coated with a new drug to target glioblastoma, Anastasia P. Stavropoulou, Theodosiou, M., Sakellis E., Boukos N., Papanastasiou G., Wang C., Tavares, A., Alcaide Corral C., Gournis D., Chalmpes N., Gobbo O. L., **Efthimiadou E. K.,** Journal of Biomedical Materials Research: Part B - Applied Biomaterials, JBMR-B-21-0035, 2021, Under review.
11. Synthesis and characterization of modified magnetic nanoparticles as theranostic agents: in vitro safety assessment in healthy cells, Prokopiou D.E., Pissas M., Fibbi G., Margheri, F., Kalska-Szostko B., Papanastasiou G., Jansen, M., Wang, C., Laurenza, A, Efthimiadou E.K., Toxicology in Vitro, 72, 105094, 2021, 10.1016/j.tiv.2021.105094.
12. Whither Magnetic Hyperthermia? A Tentative Roadmap, Rubia-Rodríguez I., Santana-Otero A., Spassov S., Tombácz, E, Johansson C., Patricia De La Presa, Teran F.J., Puerto Morales M., Veintemillas-Verdaguer S., Nguyen T. K., Besenhard M. O., Wilhelm C., Gazeau F., Harmer Q., Mayes E., Manshian B. B., Soenen S.J., Gu Y., Millán Á., **Efthimiadou E. K.,** Gaudet J., Goodwill P., Mansfield J., S., Uwe, Wells J., Wiekhorst F., and Ortega D., Materials, 14, 706, 2021, 10.3390/ma14040706.