

GIANNIS S. PAPAEFSTATHIOU



PROFESSOR

LABORATORY OF INORGANIC CHEMISTRY, DEPARTMENT OF CHEMISTRY,
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EDUCATION

- 1998 Diploma: Chemistry, University of Patras, Greece
- 2002 PhD: University of Patras, Department of Chemistry, Title: "Development of Synthetic Strategies, Chemical Reactivity and Characterization of Polynuclear Metal Complexes and Coordination Polymers of First-Row Transition Metal Ions"

RESEARCH INTERESTS

(i) Polynuclear Metal Complexes; (ii) Metal-Organic Frameworks.

ACADEMIC POSITIONS HELD

- 6/2020-current Professor, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 9/2016-6/2020 Associate Professor, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 6/2011-9/2016 Assistant Professor, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 9/2006-6/2011 Lecturer, Department of Chemistry, National and Kapodistrian University of Athens, Greece
- 9/2005-2/2006 Temporary Lecturer, Department of Pharmacy, University of Patras, Greece
- 9/2005-9/2006 Research Associate, Department of Chemistry, University of Patras, Greece
- 6/2002-6/2004 Research Associate, Department of Chemistry, University of Iowa, USA.

TEACHING

UNDERGRADUATE COURSES

- Materials Chemistry, Department of Chemistry. 2015-2021.
- Special Issues in Inorganic Chemistry, Department of Chemistry. 2010-2022.
- Inorganic Chemical Technology, Department of Chemistry. 2008-2010.
- Inorganic Chemistry I, Department of Pharmacy. 2009-2015.
- General Chemistry, Department of Physics. 2007-2008.
- Laboratory of Inorganic Chemistry I, Department of Chemistry. 2006-2007, 2012-2022.
- Laboratory of Inorganic Chemistry II, Department of Chemistry. 2006-2007, 2011-2012.
- Laboratory of Inorganic Chemistry III, Department of Chemistry. 2007-2021.
- Laboratory of Spectroscopy, Department of Chemistry. 2007-2010.
- Chemistry Laboratory, Department of Geology. 2007-2012.
- Chemistry Laboratory, Department of Physics. 2006-2011.

POSTGRADUATE COURSES

- Inorganic Structure and Reactivity, Department of Chemistry. 2016-2022.
- Materials Chemistry, Department of Chemistry. 2010-2021.

Laboratory Techniques for the Separation of Substances and Structure Determination, Department of Chemistry. 2010-2018.

Contemporary spectroscopic methods and methods of determination and analysis. - Laboratory course. 2018-2022.

Chemistry of Mineral Resources, Department of Chemistry. 2007-2010.

AWARDS

- University of Iowa: Biosciences Initiative Postdoctoral Fellowship Program 2001-2002. Postdoctoral Fellowship.
- American Chemical Society: 5th Annual Green Chemistry and Engineering Conference "A New Generation of Professionals-A New Generation of Processes", Washington, USA, June 26-28, 2001. Student Fellowship.
- Foundation in Memory of Prof. Dr. Jezowska-Trzebiatowska: XIIth Winter School on Coordination Chemistry, Karpacz, Poland, December 4-8, 2000. Student Fellowship.
- EURESCO Conference: "Design and Properties of Low Nuclearity Metal Complexes, Achievements and Challenges of Organometallic Chemistry and Homogeneous Catalysis", San Feliu de Guixols, Spain, September 2-7, 2000. Student Fellowship.
- A NATO Advanced Study Institute and a Euroconference: International School of Crystallography, 28th Course "Crystal Engineering: From Molecules and Crystals to Materials", Erice, Italy, May 12-23, 1999. Student Fellowship.
- «ERASMOUS» Fellowship (1/2/2000 - 31/7/2000).
- «K. KARATHEODORIS», Fellowship of the University of Patras (1/10/1998 - 30/9/2001).

PROJECTS

- 2022-2024: RESEARCH –CREATE –INNOVATE: Principal Investigator: "Metal-Organic Frameworks as sorbents for the removal of heavy metal ions from contaminated waters".
- 2020-2022: RESEARCH –CREATE –INNOVATE: Principal Investigator: "3D-printed Wearable sensors based on Metal-Organic Frameworks for the electrochemical sweat glucose monitoring".
- 2020-2021: Principal Investigator: Operational Programme «Human Resources Development, Education and Lifelong Learning 2014-2020» "Mechanochemical synthesis of Metal-Organic Frameworks for water purification".
- 2016-2019: Management Committee Substitute. "Molecular Spintronics" COST CA15128.
- 11/2013-10/2015: Principal Investigator: Title: Tailor-made Metal-Organic Frameworks as Trace Gas Detectors for Food Quality Control; Source: co-funded by the European Union (ERDF) and the national funding agencies BMBF/ Germany and GSRT/ Greece Bilateral R&D Cooperation between Greece and Germany.
- 6/2013-5/2016: Principal Investigator: Title: Seeking New Molecular Materials at the Edge of Organic Solid-State Chemistry, Photochemistry and Metal Complex Chemistry; Source: Empirikion Foundation.
- 4/2012-1/2016: Team Leader: Title: Polynuclear Transition Metal Complexes: Development of Synthetic Strategies, Reactivity and Applications in Magnetic and Catalytic Materials (Coordinator S. P. Perlepes, University of Patras); Source: General Secretariat for Research and Technology of Greek Ministry of Education, Lifelong Learning and Religious Affairs under the THALIS Research Programme 2010-2013.
- 2009-2011: Collaborative Researcher: Title: Metal-Organic Frameworks based on poly-alcohols and poly-carboxylic acids as materials for H₂ storage: Synthesis, characterization and study (Coordinator A. J. Tasiopoulos, University of Cyprus); Source: Research Promotion Foundation of Cyprus.

PARTICIPATION IN CONFERENCE COMMITTEES

- Member of the Scientific Committee of the 5th Panhellenic Symposium on Porous Materials, 30 June - 1 July, **2011**, Greece and of the 7th Panhellenic Symposium on Porous Materials, 2-4 June, **2016**, Greece.
- Member of the Organizer Committee of the *Green Chemistry and Sustainable Development 6th Panhellenic Symposium with International Participation*, Athens, Greece, 18-20 October, 2019.

REFEREE / EDITOR / EDITORIAL BOARD IN INTERNATIONAL JOURNALS

REFEREE

Chemical Communications, Dalton Transactions, CrystEngComm, New Journal of Chemistry, Inorganic Chemistry Frontiers, Physical Chemistry Chemical Physics, RSC Advances, Journal of the American Chemical Society, Inorganic Chemistry, Crystal Growth & Design, Inorganic Chemistry Communications, Inorganica Chimica Acta, Polyhedron, Journal of Organometallic Chemistry, Journal of Inclusion Phenomena, Journal of Chemical Crystallography, Journal of Coordination Chemistry, Journal of Solid State Chemistry, Journal of Materials Chemistry, Journal of Inorganic Biochemistry, Bioinorganic Chemistry and Applications, European Journal of Inorganic Chemistry, Chemistry A European Journal, Zeitschrift für Anorganische und Allgemeine Chemie, Physical Science International Journal, Journal of Cluster Chemistry, Molecular Crystals and Liquid Crystals, Sensors, Polymers, Crystals, Materials Letters, Supramolecular Chemistry, Nature Chemistry, Nature Communications.

EDITOR / GUEST EDITOR / EDITORIAL BOARD

- 2013 – today: Editorial board member: Journal of Coordination Chemistry (Taylor & Francis).

PATENTS

- United States Patent 7481866, Gas Storage Materials and Devices.

ADDITIONAL INFORMATION

- Publications in referred Journals and special volumes: **121**
- Presentations in Conferences: **179**
- Number of Heterocitations: **4800**, h index: **37**
- PhD Thesis supervision: **10**
- MSc. Thesis supervision: **18**
- BSc Thesis supervision: **18**
- Referee for Journals: **48**
- Scientist in Charge in **7** Research Projects, Participation in **4** research Projects and in **1** infrastructure Project
- Referee for Research Projects: **110** [ACENET ERA-NET (EU), e-GAP (Royal Society of Chemistry, UK), EPSRC (Engineering and Physical Sciences Research Council, UK), Petroleum Foundation (USA), RPF (Cyprus), GSRT (Greece)].

SELECTED PAPERS

1. Kokkinos, C., Economou, A., Pournara, A., Manos, M., Spanopoulos, I., Kanatzidis, M., Tziotzi, T., Petkov, V., Margariti, A., Oikonomopoulos, P. & **Papaefstathiou, G. S.** "3D-printed lab-in-a-syringe voltammetric cell based on a working electrode modified with a highly efficient Ca-MOF sorbent for the determination of Hg(II)". *Sensors Actuators B Chem.*, **2020**, *321*, 128508
2. Pournara A.D., Margariti A., Tarlas G.D., Kourtellaris A., Petkov V., Kokkinos C., Economou A., **Papaefstathiou G.S.**, Manos M.J. "A Ca²⁺ MOF combining highly efficient sorption and capability for voltammetric determination of heavy metal ions in aqueous media". *Journal of Materials Chemistry A*, **2019**, *7*, *25*, 15432 - 15443
3. "Cu²⁺ Sorption from Aqueous Media by a Recyclable Ca²⁺ Framework", A. Margariti, S. Rapti, A. D. Katsenis, T. Friščić, Y. Georgiou, M. J. Manos, **G. S. Papaefstathiou**, *Inorg. Chem. Front.* **4** (2017) 773-781.