

CHRISTIANA A. MITSOPOULOU**PROFESSOR**

LABORATORY OF INORGANIC CHEMISTRY, DEPARTMENT OF CHEMISTRY, NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS, GREECE

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EDUCATION

- 1980 Diploma: Chemistry, National and Kapodistrian University of Athens
 1989 PhD: National and Kapodistrian University of Athens, Department of Chemistry, Title: "Synthesis and characterization of dithiolene complexes of W and Mo complexes and study of the catalytic and photocatalytic action of the tris- $\{1-(4\text{-methoxy})-2\text{-phenyl-1,2-ethylenedithiolen-S,S'}\text{W}\}$ "

RESEARCH INTERESTS

(i) Design, synthesis, theoretical and experimental spectroscopic study of new compounds applied to catalysis and medicine. (ii) Photochemistry / Photocatalysis and Photosensitization. (iii) Production of Hydrogen from Renewable Energy Resources. (v) electrocatalysis (iv) Light driven and electrocatalytic reaction Mechanisms (v) Inorganic biological Chemistry (vi) Computational Chemistry (vii) nanomaterials.

ACADEMIC POSITIONS HELD

7/2009-present	Professor of Inorganic Chemistry, Department of Chemistry, NKUA
8/2003-8/2009	Associate Professor, Department of Chemistry, NKUA
7/1997-8/2003	Assistant Professor, Department of Chemistry, NKUA
9/1992-7/1997	Lecturer, Department of Chemistry, NKUA
5/1981-9/1992	Research Associate, Department of Chemistry, NKUA
9/1994-6/1995	Visiting Researcher, Dept. of Chemistry, Queen Mary and Westfield College, London Univ
2002-2017	Academic Staff Member in Inorganic Chemistry (FYE 12), Hellenic Open University

TEACHING**UNDERGRADUATE COURSES**

General and Inorganic, Dept. of Chemistry. 1997-2023	Inorganic Chemistry II 1995-2014
Inorganic Chemistry III, 2010-2023	Special Issues in Spectrochemistry, 2006-2010.
Group Theory-Photochemistry and its Applications 2013-23	Materials Chemistry, 2006-2012
Inorganic and General Chem. in Science at Hel. Open Univ.	

POSTGRADUATE COURSES

Inorganic Synthesis and Analysis. 2016-present	Renewable Energy Sources and Hydrogen 2010-2017
Laboratory Techniques for the Separation of Substances and Structure Determination, Dept of Chemistry. 2010-today	Energy: Nuclear and renewable ones (<i>Environmental Chemistry</i>) 1995-2017
Photochemistry and Photocatalysis: Εφαρμογές στην Ενέργεια και την Προστασία του Περιβάλλοντος 2010-σήμερα	Inorganic Reaction Mechanisms 1999-2000
Ανόργανα Σύμπλοκα και Νανοϋλικά: Εφαρμογές τους ως Φάρμακα, Καλλυντικά και Διαγνωστικά Υλικά 2016-σήμερα.	Spectroscopic Methods of Structure Determination, 1997-2017
Bioinorganic Chemistry 2016-today / 'Intern. Grad. Program. In <i>Biological Inorganic Chemistry</i> '	Computer Science- New Technologies (<i>ΔΙΧΗΝΕΤ</i>), 1998-2008
Physicochemical, Spectroscopic and Biochemical Methods in Bioinorganic Chemistry, 2016-σήμερα / 'Intern. Grad. Program. In <i>Biological Inorganic Chemistry</i> '	Basic Homogeneous catalysis (<i>Graduate Studies in Catalysis</i>), 2004-2013
	Biphasic Catalysis and Photocatalysis (<i>Graduate Studies in Catalysis</i>), 2004-2013

AWARDS

- Member of MC of CIVIS HUB 1': Climate, Environment and Energy'
- Member of the Advisory Committee of HYPER
- Member of the MC of Actions Cost D35, CM1202, CA15135.CA 18234
- Presentation as Chemistry Europe Lecturer/**2021** by Chemistry Europe /EurJIC
- Chairman of Chemistry Department, NKUA. 2017-2022
- Head of the Supreme Chemical Council of the State 2012-2017
- 1st Award in *4th FGIPS Meeting in Inorganic Chemistry, 1997.*
- Award for the best paper of NKUA (5274/12/11/1999)
- 1976-1980, State Scholarship Foundation of Greece.

PROJECTS

- 2021-2023: Development of innovative modified titanium nanoparticles for the decomposition of pollution and the reduction of microbial load, Action of national scope:" res.-create-innovate" (EPANEK).
- 2018-2024 'Computational materials sciences for efficient water splitting with nanocrystals from abundant elements' COST
- 2021-2024: Modulation Certificate for Post Graduate Students Enabled by Blended Learning / IMCert, AL-AZHAR UNIVERSITY, Erasmus+ Capacity Building in Higher Education Call EAC/A02/2019 – (2020).
- 2019-2022 HFRI «Synthesis of photosensitizers and catalysts for solar energy conversion. Hydrogen production'
- 2016-2020: Management Committee. "Multi-target paradigm for innovative ligand identification in the drug discovery process (MuTaLig)" COST CA15135.
- 2012-2016: Management Committee: 'Supramolecular Photocatalytic water splitting' COST CM1202.
- 2006-2011: Management Committee: *Multifunctional and Switchable Molecular Materials: Design, Synthesis, Characterization and Preparations as crystals and Thin Films'* COST D35.
- 4/2012-1/2016: Polynuclear Transition Metal Complexes: Development of Synthetic Strategies, Reactivity and Applications in Magnetic and Catalytic Materials' Coord. S. P. Perlepes THALIS Res. Progr. 2010-13.
- HERAKLEITOS I, 2010: 'Coordination compounds as probes in DNA and molecular switches
- IKYDA 2006: Bilateral Greece / German (Max Plank, Prof F. Neese, Bonn Univ.)

PARTICIPATION IN CONFERENCE COMMITTEES

- 8th FIGIPAS Meeting in Inorganic Chemistry, 6-9 July, **2005**, Greece
- 3^o National Conference in Hydrogen Technologies, Patra, November, 19-20 , **2007**
- Green Chemistry & Sustainable Development, 2^o Panhellenic Symposium, March, 8-10, **2007**
- "Hyapproval Seminar: Rules and Safety for Hydrogen Refueling Stations', **2008**.
- **COST D35** Workshop 'Dithiolenes and non-innocent redox-active ligands' June 17-19, **2009**
- 11^o Panhellenic Symposium in Catalysis, Athens, 22-23/10/**2010**
- Member of the advisory Board tou IC BIOSOL 2011, September 12-17, **2011**, Crete, Greece
- **COST-PERSPECT H2O Meeting** 'Synthesis of novel ligands for supramolecular photocatalytic active assemblies, Athens 15 – 17 April **2015**.
- **Athens International Catalysis Symposium 2016**, NKUA, 3-4 NOVEMBER **2016**
- ACAC18, ACAC20, ACAC22 (**2018,2020, 2022**)
- 16th International Symposia on Applied Bioinorganic Chemistry (16th ISABC), Ioannina, **2023**

REFEREE / EDITOR / EDITORIAL BOARD IN INTERNATIONAL JOURNALS

REFEREE

ACS, RCS, Elsevier, MDPI, Frontiers as Coord. Chem. Rev., Chem. Com., Dalton Trans., CrystEngComm, New J.Chem., Inorg. Chem. Frontiers, PCCP, RSC Advances, JACS, Inorg. Chem, J. Phys.Chem.Solids, J. Photochem. and Photobiol. A: Chem., Crystal Growth & Design, Inorg. Chem. Commun., Inorg. Chim. Acta, J. Organometalic Chem., Polyhedron, J. Chem. Crystallography, J. Coord. Chem., ChemPhysChem, J. Materials Chem., J. Inorg. Biochem., EJIC, Chem. A Europ. J., Nature Chemistry, Adv.Energy Materials, I. J. of Physical Sciences.

EDITOR / GUEST EDITOR / EDITORIAL BOARD

2020-σήμερα Frontiers in Chemistry, Associate Editor Inorganic Chemistry

2011 – σήμερα: *Open Chemistry (ex-Central European Journal of Chemistry)*, De Goyter with Springer Verlag (Editor –Theoretical and Computational Chemistry)

BOOKS AND SPECIAL VOLUMES

1. 'General Chemistry' R. Chang Ed. of Greek Translation (Papazisis, ed., Athens, 2021)
2. "Basic Inorganic Chemistry" (Stamoulis ed., Athens, 2006, in Greek, 2 co-authors)
3. "Inorganic Chemistry B: The elements" (Papazisis, ed., Athens, 2002, in Greek, 3 co-authors)
4. "Experiments in General and Inorganic Chemistry" (Stamoulis ed., 2005, in Greek, 6 co-authors)
5. "Hydrogen and Renewable Energy" (Athens, 2007, in Greek).
6. 'Topical Issue on Catalysis' Open Chemistry, De Gruyter, **2016**

PATENTS

- OBI 201800593, 'Multi target medicines: Compounds of Cu(II) with natural products namely, pyridylquinoxaline and nitric anions with anticancer and antimicrobiological action.
- OBI 201801068., Catalysts of Ni(II) with diamine and dithiolenic ligands for the homogeneous photocatalytic production of hydrogen from water.

ADDITIONAL INFORMATION

- Publications in referred Journals and special volumes: **84**
- Presentations in Conferences: **190**
- Number of Heterocitations: **1809**, h index: **27**
- PhD Thesis supervision: **14**
- MSc. Thesis supervision: **50**
- BSc Thesis supervision: **70**
- Referee for Journals: **60**
- Scientist in Charge and Participation in **35** research Projects and in **5** infrastructure Project
- Referee for Research Projects: DOE/USA, ANID/MSTI Chile, MFP7 (NMP), Horizon2020, FP7 (NMP), Bulgarian National Sciences, COST Actions, IKY, RPF (Cyprus), GSRT (Greece), ΥΠΕΠΘ.

SELECTED PAPERS

1. 'Reconciling Local Coupled Cluster with Multireference Approaches for transition Metal Spin-State Energetics, M Drosou, CA Mitsopoulou, DA Pantazis, J. Chem Theory and Comput. **2022**,18,3538
2. 'Heteroleptic thiolate diamine nickel complexes: Noble-free-metal catalysts in electrocatalytic and light-driven hydrogen evolution reaction'. F. Kamatsos, M. Drosou, C.A. Mitsopoulou, Inter. J. of Hydrogen Energy (2021) 26, 19705-19716.
3. 'Antifungal and antiaflatoxigenic assessment of new Cu(II)-pq complexes against Aspergillus parasiticus, in dark conditions and under visible irradiation' E.Lioli, E. Kollia, P. Markaki, C.A. Mitsopoulou FEMS Microbiology Letters 368 (2021) 136
4. 'Reactivity and Mechanism of Photo- and Electrocatalytic Hydrogen Evolution by a Diimine Copper(I) Complex' M. Drosou, F. Kamatsos, G. Ioannidis, A. Zarkadoulas, C. A. Mitsopoulou, C. Papatriantafyllopoulou and D.Tzeli, Catalysts **2020**, 10, 1302.
5. Proton reduction reaction catalyzed by homoleptic nickel bis-1,2-dithiolate complexes: Experimental and theoretical mechanistic investigations', A. Zarkadoulas, M. J. Field, V. Artero, **C. A. Mitsopoulou**, *ChemCatChem*, **9** (2017), 9. 2308-2317.
6. "Synthesis, characterization and crystal structure of rhenium(I) tricarbonyl diimine complexes coupled with their efficiency in producing hydrogen in a photocatalytic system', Kefalidi, C., Koutsouri, E., Marchiò, L., A. Zarkadoulas, Efstathiadou, S., **Mitsopoulou, C.A.**, *Polyhedron* **110** (2016) 157-164.
7. "Experimental and Theoretical Insight into Electrocatalytic Hydrogen Evolution with Nickel Bis(aryldithiolene) Complexes as Catalysts, A. Zarkadoulas, M. J. Field, C. Papatriantafyllopoulou, V. Artero, C. A. Mitsopoulou, *Inorg. Chem.* **55** (2015) 432-444.
8. "Rhenium complexes in homogeneous hydrogen evolution', A. Zarkadoulas, E. Koutsouri, C. Kefalidi, **C.A. Mitsopoulou**, *Coordination Chemistry Reviews*, (2015), 304, 55-72.
9. "Re(I) tricarbonyl complex of 1,10-phenanthroline-5,6-dione: DNA binding, cytotoxicity, anti-inflammatory and anti-coagulant effects towards Platelet Activating Factor, M. Kaplanis, G. Stamatakis, V. D. Papakonstantinou, M. Paravatou-Petsotas, C. A. Demopoulos, C. A. Mitsopoulou, *J. Biol. Inorg. Chem.* **135** (2014) 1-9.
10. "A perspective on solar energy conversion and water photosplitting by dithiolene complexes' A. Zarkadoulas, E. Koutsouri, C.A. Mitsopoulou, *Coord. Chem. Rev.* **256** (2012) 2424-2434.
11. 'Identifying of charge-transfer transitions and reactive centers in M(diimine)(dithiolate) Complexes by DFT techniques.' C.A. Mitsopoulou, *Coord. Chem. Rev.*, **254** (2010) 1448-1456.