

# ATHANASSIOS PHILIPPOPOULOS

#### Associate Professor

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

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• >1300 (WOS) citations (H-index 19), > 1520 (scholar google) citations (H-index 21)

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#### **EDUCATION**

1992 BSc in "Chemistry", Department of Chemistry, University of Ioannina

1997 Ph.D. in Chemistry (Inorganic-Organometallic Chemistry), Department of Chemistry University of Ioannina

### **RESEARCH FIELDS**

- Organometallic coordination Chemistry
- > Applications of nanotechnologies and nanosciences to energy and environmental issues
- Renewable energy resources. Dye sensitized solar cells for energy conversion
- Bio-inorganic chemistry, metal based drugs
- Catalysis

#### **EDUCATIONAL EXPERIENCE**

#### **UNDERGRADUATE COURSES**

- General and Inorganic Chemistry I for chemists (Laboratory training)
- Inorganic Chemistry II (Teaching and Laboratory training)
- ➤ General and Inorganic Chemistry I for physicists (Teaching and Laboratory training)
- ➤ General and Inorganic Chemistry I for biologists (Teaching and Laboratory training
- ➤ General and Inorganic Chemistry, Department of Geology (Teaching and Laboratory training)
- > Organometallic Chemistry (Teaching and Laboratory training)
- > Spectroscopy in Inorganic Chemistry (Laboratory training)
- > Advanced Inorganic Chemistry

#### **POST-GRADUATE COURSES**

- ➤ Inorganic Structure and Reactivity
- > Contemporary spectroscopic methods and methods of determination and analysis.
- > Inorganic Chemical Technology and Entrepreneurship
- > Topics of Inorganic Chemistry
- Energy production

## REVIEWER OF SCIENTIFIC JOURNALS

Inorganic Chemistry Communications, Inorganica Chimica Acta, European Journal of Medicinal

Chemistry, Bioinorganic chemistry and applications, European Journal of Chemistry, Molecules, Journal of Hazardous Materials, Materials Chemistry and Physics, Journal of the Serbian Chemical Society, Journal of Industrial Textiles, Central Journal of Inorganic Chemistry, Journal of Coordination Chemistry, Thermochimica Acta, Sensor Letters, Journal of Taibah University for Science, JTUSCI, Walailak Journal of Science and Technology, ISRN Inorganic Chemistry Journal, PLOS ONE, Ionics, Polyhedron, Sensors and Actuators B: Chemical., Open chemistry, Journal of Advances in Biology & Biotechnology, ChemMedChem, Reaction Kinetics, Mechanisms and Catalysis, Chemical Physics Letters, Helyion, Journal of Molecular Modeling, Mini-Reviews in Medicinal Chemistry, Molecules, Chemistry (MDPI).

## **AWARDS / SCHOLARSHIPS**

- > Fellowship, Institute of Physical Chemistry, NCSR "Demokritos, Greece, 3/3/2003-2006
- > IKYDA Fellowship 2003-2005
- Fellowship, Graduiertenkolleg entitled: "Synthetische, Mechanistische und Reactionstechnische Aspekte von Metallkatalysatoren", TUB/HUB/FU, 1999-2000
- Scholarship from the Dept. of Chemistry, University of Ioannina during my Ph.D (1994-1996, upon examination).
- "ERASMUS" Fellowship 9/1993 6/1994.
- > Scholarships from the French Government, Program PLATON, 9/1992-3/1993, 4/1996-6/1996.
- Scholarship from IKY (State scholarships Foundation), during my B.Sc. studies 1988-1990, (ranked over the top 5% of the year)

# EDITOR OF BOOKS AND SPECIAL VOLUMES

- Chemical Elements (Fluorine, Rhodium and Rubidium). Properties, Synthesis and Applications. A. Peppas, A.Kalabalidis, V.D. Papakonstantinou, C.A. Demopoulos, G. Schnakenburg, A.I.Philippopoulos, "Rhodium-Based Inhibitors of the Platelet Activating Factor (PAF): A New Class of Potent Anti-Inflammatory Drugs". Editor. A.Huff, NOVA Science Publishers, NY, 2018, p.p.127-169 (upon invitation).
- Guest Editor for Molecules, Special Issue, Open till 15 May 2023,"Antiplatelet and Anti-inflammatory Agents: Synthesis, Structures, and Biological Evaluation, <a href="https://www.mdpi.com/journal/molecules/special\_issues/antiplatelet\_anti-inflam">https://www.mdpi.com/journal/molecules/special\_issues/antiplatelet\_anti-inflam</a>.

### **PATENTS**

National patent 1006959, title: "Platelet Activating Factor (PAF) inhibitors with possible antitumor activity"

#### ADDITIONAL INFORMATION

- > 55 publications in journals with peer review
- > 65 conference presentations
- 1 invited book chapters in collective volumes
- Supervision of doctoral thesis: 6
- Supervision of graduate students: 12

- Supervision of undergraduate students: 32
- > Editor of Editsprings, academic editing
- ➤ Guest Editor of Special issue entitled: "Antiplatelet and anti-inflammatory agents: Synthesis, Structures and Biological Evaluation", Molecules 2023.
- Reviewer in Research Programs: > 30

# RESEARCH GRANDS

- Synthesis and characterization of Cu(I) complexes for applications in nanocrystalline solar cells/ 19.200€/ Principal Investigator/Source Hellenic Foundation for research and Innovation/2017-2019
- ➤ Innovative materials for nanocrystaline solar cells/<u>Collaborative Researcher</u>: Collaborative Researcher/ Source: General Secretariat for Research and Technology of Greek Ministry of Education, Lifelong Learning and Religious Affairs under the THALES Research Program/2012-2015
- Chelators used in clinical medicine can lead to the development and implementation of innovative cleaning methods for removing iron corrosion products from museum artefacts/ <u>Collaborative Researcher</u>/Source: General Secretariat for Research and Technology of Greek Ministry of Education, Lifelong Learning and Religious Affairs under the ARCHIMIDES Research Program/ 2012-2015
- Supramolecular cyclodextrin Ru complexes for nanocrystalline dye sensitized solar cells/ Principal Investigator/Joint research and technology program, Britain-Greece General Secretariat for Research and Technology of Greek Ministry of Education/2004-2006
- > Erasmus+ project which aims to raise awareness on the water footprint in the textiles sector and raise the sustainability skills of students and textile companies regarding the sustainable use of water in textiles. Project Number: 2022-1-LT01-KA220-HED-000086367. Funded by the European Union. In collaboration with UNIWA.

## SELECTED PUBLICATIONS (link OF PUBLICATIONS)

- "A Review on Platelet Activating Factor Inhibitors: Could a New Class of Potent Metal-Based Anti-Inflammatory Drugs Induce Anticancer Properties?", V. D. Papakonstantinou, N. Lagopati, E. C. Tsilibary, C. A. Demopoulos, A. I. Philippopoulos\*, *Bioinorganic Chemistry and Applications*, vol. 2017, Article ID 6947034, 19 pages, 2017. doi:10.1155/2017/6947034
- "Facile synthesis of a 2-(2'-pyridyl)-4-(methylcarboxy)quinoline ruthenium(II) based catalyst precursor for transfer hydrogenation of aromatic ketones", E. Kolovou A. Peppas, N. Zacharopoulos, K. Koukoulakis, E. Bakeas, G. Schnakenburg, A.I. Philippopoulos, *Inorg. Chem. Commun.* 92 (2018), 64–68. https://doi.org/10.1016/J.INOCHE.2018.04.005
- "Pyridyl based ruthenium(II) catalyst precursors and their dihydride analogues as the catalytically active species for the transfer hydrogenation of ketones", N. Zacharopoulos, E. Kolovou, A. Peppas K. Koukoulakis, E. Bakeas, G. Schnakenburg, A.I. Philippopoulos, *Polyhedron* 154 (**2018**) 27-38. https://doi.org/10.1016/j.poly.2018.07.030
- A. Peppas, E. Papadaki, G. Schnakenburg, V. Magrioti, A.I. Philippopoulos, "Heteroleptic copper(I) complexes incorporating sterically demanding diazabutadiene ligands (DABs). Synthesis, spectroscopic characterization and solid-state structural analysis", *Polyhedron* 2019, 171, 412-422. https://doi.org/10.1016/J.POLY.2019.07.033
- A. Margariti, V. D. Papakonstantinou, G.M. Stamatakis, C.A. Demopoulos, G. Schnakenburg, A. K. Andreopoulou, P. Giannopoulos, J. K. Kallitsis, A. I. Philippopoulos, "Substituted pyridine-quinoline ligands as building blocks for neutral rhodium(III) complexes. Synthesis, structural characterization

- studies and anti-platelet activity towards the Platelet-Activating Factor (PAF)", *Polyhedron* **2020**, 178, 114336. https://doi.org/10.1016/j.poly.2019.114336.
- "Synthesis, characterization of ((CH<sub>3</sub>) <sub>3</sub>S)<sub>2</sub>SnI<sub>6-n</sub>CI<sub>n</sub> and ((CH<sub>3</sub>)<sub>3</sub>S)<sub>2</sub>SnI<sub>6-n</sub>Br<sub>n</sub> (n= 1, 2) perovskites and use in dye-sensitized solar cells", M.M.Elsenety, M. Antoniadou, A. Kaltzoglou, A.G.Kontos, A. I.Philippopoulos, C. A.Mitsopoulou, P. Falaras, *Materials Chemistry and Physics.*, 239 (2020) 122310. https://doi.org/10.1016/J.MATCHEMPHYS.2019.122310.
- A. Kalampalidis, A. Peppas, G. Schnakenburg, A. Papakyriakou, A. Tsoupras, I. Zabetakis, A.I. Philippopoulos, "Anti-thrombotic and anti-platelet activity of an organometallic rhodium(I) complex incorporating a substituted thieno-[2,3-d]-pyrimidine ligand. Synthesis, structural characterization and molecular docking calculations", *Appl. Organomet. Chem.* **2021**; e6210, https://doi.org/10.1002/aoc.6210.
- A.Peppas, D. Sokalis, D. Perganti, G. Schnakenburg, P. Falaras, A. I. Philippopoulos, "Sterically demanding pyridine-quinoline anchoring ligands as building blocks for copper(I)-based dye-sensitized solar cells (DSSCs) complexes)", Dalton Trans. 51 (2022) 15049-15066, themed collection: Spotlight Collection focused on Inorganic Chemistry in Greece, "hot article", A 'HOT' article contains research, which has been highlighted by reviewers as being interesting and significant research for the inorganic chemistry community. https://doi.org/10.1039/D2DT02382B.
- A. Kalampalidis, A. Damati, D. Matthopoulos, A. B. Tsoupras, C.A. Demopoulos, G. Schnakenburg, and Athanassios I. Philippopoulos, "Tin(II) and tin(IV) complexes incorporating the oxygen tripodal ligand  $[(\eta^5-C_5R_5)Co\{P(OEt)_2O\}_3]^-$ , (R = H, Me; Et =  $-C_2H_5$ ) as Potent Inflammatory Mediator Inhibitors: Cytotoxic properties and biological activities against the Platelet-Activating Factor (PAF) and Thrombin." Molecules **2023**, 28, 1859. https://doi.org/10.3390/molecules28041859 (Guest Editor of Special issue entitled: "Antiplatelet and anti-inflammatory agents: Synthesis, Structures and Biological Evaluation").
- > Tsoupras, A.; Pafli, S.; Stylianoudakis, C.; Ladomenou, K.; Demopoulos, C.A.; Philippopoulos, A. Anti-Inflammatory and Antithrombotic Potential of Metal-Based Complexes and Porphyrins. Compounds 2024, 4, 376-400, <a href="https://doi.org/10.3390/compounds4020023">https://doi.org/10.3390/compounds4020023</a>. Editor's Choice Articles by the Editor-in-Chief of the journal.