



# PANAYOTIS KYRITSIS

PROFESSOR

LABORATORY OF INORGANIC CHEMISTRY, DEPARTMENT OF CHEMISTRY,  
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## EDUCATION

- 1987 Diploma: Chemistry, National and Kapodistrian University of Athens (NKUA), Greece
- 1993 PhD: University of Newcastle, Department of Chemistry, Title: "Electron-Transfer Reactivity of Some Cu-containing Proteins"

## RESEARCH INTERESTS

Synthesis of transition metal complexes and studies on their structural, electronic, magnetic and catalytic properties

## ACADEMIC POSITIONS

- 2/2020-today Professor, Department of Chemistry, NKUA
- 8/2015-2/2020 Associate Professor, Department of Chemistry, NKUA
- 4/2007-7/2015 Assistant Professor, Department of Chemistry, NKUA
- 7/2000-4/2007 Lecturer, Department of Chemistry, NKUA
- 3/1998-4/1999 Research Associate, Department of Chemistry, University of Oxford, UK
- 8/1995-8/1997 Research Associate, Laboratory of Metalloproteins, CEA Grenoble, France
- 12/1993-4/1995 Research Associate, Department of Chemistry, University of Newcastle, UK

## TEACHING

### UNDERGRADUATE COURSES

- Inorganic Chemistry III, Department of Chemistry. 2002-today.
- Inorganic Chemistry I, Department of Pharmacy. 2009-today.
- General Chemistry, Department of Biology. 2005-2006.
- General Chemistry, Department of Physics. 2004-2008.
- Medical Chemistry, Department of Medicine, 2022.
- Laboratory of Inorganic Chemistry III, Department of Chemistry. 2001-today.
- Laboratory of Spectroscopy, Department of Chemistry. 2007-2010.
- Chemistry Laboratory, Department of Biology. 2001-2007, 2010-2018.
- Chemistry Laboratory, Department of Physics. 2004-2008.
- Chemistry Laboratory, Department of Geology. 2001-2004.

### POSTGRADUATE COURSES

- Topics of Inorganic Chemistry, Department of Chemistry. 2016-today.
- Inorganic Structure and reactivity, Department of Chemistry. 2016-today.
- Physical Methods of Structure Elucidation, Department of Chemistry. 2011-2016.
- Contemporary spectroscopic methods and methods of determination and analysis. - Laboratory course. Department of Chemistry. 2011-today

Bioinorganic Chemistry, Department of Chemistry. 2004-2017.

Basic Biocatalysis, Department of Chemistry. 2004-2018.

## AWARDS

- PhD Fellowship, IKY (State Scholarship Foundation of Greece). 1989-1993.
- Shaw-Shaville prize for PhD Thesis, University of Newcastle-upon-Tyne, U.K. 1995.
- Fulbright Foundation Scholar: Two month visit in the National High Magnetic Field Laboratory, Tallahassee, Florida, USA. 15/9-15/11 2013.

## PROJECTS

- "IKYDA", Synthesis of analogues of the Mo or W oxotransferase active sites. 2002-2003.
- "Plato", GSRT-France "The role of a family of bacterial ferredoxins in the pathogen-host interactions". 2003-2005.
- Ministry of Education – Czech Republic: Synthesis of Rh(I) complex compounds and study of their catalytic activity in hydroformylation and polymerization reactions. 2003.
- Empirikion Foundation: Structure / function relationships in 2[4Fe-4S] ferredoxins. 2004.
- "Pythagoras": Synthesis of inorganic compounds with predefined properties in catalysis and photocatalysis" (coordinated by Professor C. Mitsopoulou).
- "PICS", GSRT-France: Biological activity and biochemical properties of a new family of ferredoxins in pathogenic bacteria. 2005-2007.
- Ministry of Education – Czech Republic: Synthesis of Ni(II) and Pd(II) complex compounds and study of their catalytic activity in C–C coupling reactions. 2008.
- Member of the Management Committee of the COST Action "European Phosphorus Sciences Network". 2009-2013.
- "Heraclitus II": Supervision of the PhD Thesis of Mr. I. Stamatopoulos. 2011-2014.
- Research collaborator, "Thales": "Innovative materials for nanocrystalline solar cells" and "Developing innovative solar cells for the production of hydrogen and electricity from the oxidation of organic compounds using solar radiation" (coordinated by Professors P. Lianos and D. Kontaridis, University of Patras, respectively).
- Empirikion Foundation: Catalytic properties of complexes of the type  $[M(P,P)X_2]$ ,  $[M(E,P)X_2]$  and  $[M(E,E)X_2]$ , M = Ni, Pd, Pt; E = O, S, Se; X = Cl, Br, I. 2012.
- Member of the Management Committee of the COST Action "Explicit Control Over Spin-States in Technology and Biochemistry". 2014-2018.
- ELIDEK: Supervision of the PhD Thesis of Mrs M. Tsoukala. 2017-2019.
- IKY grant for the post-doctoral associate Dr Eleftherios Ferentinos, project "Synthesis and investigation of mononuclear 3d Single Molecule Magnets" (2017-2019).
- Deputy Supervisor of the proposal "Aqueous Asymmetric Homogeneous Catalysis" of the program "Support of researchers with emphasis to young researchers – 2<sup>nd</sup> call), in collaboration with the project's supervisor Dr I.D. Kostas (Research Director, National Research Foundation) and Drs E. Ferentinos and P.-C. Ioannou, 2020-2021.

## PARTICIPATION IN CONFERENCE COMMITTEES

- Member of the Scientific Committee of the Chemistry Olympiad. 2003.
- Member of the Organizing Committee of the Inorganic Reactions Mechanisms Meeting. Athens 8-10/01/2004.
- Member of the Organizing Committee of the Athens International Catalysis Symposium. Athens 3-4/11/2016.

## REFEREE / EDITOR / EDITORIAL BOARD IN INTERNATIONAL JOURNALS

### REFEREE

- Journal of the American Chemical Society, Inorganic Chemistry, Dalton Transactions, Inorganic Chemistry Frontiers, European Journal of Inorganic Chemistry, Journal of Physical Chemistry

Letters, Inorganica Chimica Acta, Polyhedron, Inorganic Chemistry Communications, Chemistry Select, Applied Organometallic Chemistry, Crystal Growth, Canadian Journal of Chemistry, Bioinorganic Chemistry and Applications, Central European Journal of Chemistry, Open Chemistry, Materials, Magnetochemistry, Journal of Chemistry, European Polymer Journal, Journal of Hazardous Materials, Collection of Czechoslovak Chemical Communications.

#### TEXTBOOKS AND SPECIAL VOLUMES EDITOR

- “Experiments in General and Inorganic Chemistry” (Stamoulis ed., 2005, in Greek, 8 co-authors).

#### ADDITIONAL INFORMATION

- Publications in referred Journals and special volumes: **72**
- Presentations in Conferences: **110**
- Number of Heterocitations: **1200**, h index: **23**
- PhD Thesis supervision: **6**
- MSc. Thesis supervision: **27**
- BSc Thesis supervision: **29**
- Referee for Journals: **58**
- Scientist in Charge in **10** Research Projects
- Participation in **4** Research Projects
- Referee for Research Projects: **10** (National High Magnetic Field Laboratory, Florida, USA; Czech Republic Science Foundation)

#### SELECTED PAPERS

1. “Direct observation of very large zero-field splitting in a tetrahedral Ni<sup>II</sup>Se<sub>4</sub> coordination complex”, S.-D. Jiang, D. Maganas, N. Levesanos, E. Ferentinos, S. Haas, K. Thirunavukkuarasu, J. Krzystek, M. Dressel, L. Bogani,\* F. Neese,\* **P. Kyritsis**,\* *J. Am. Chem. Soc.*, **137**, (2015), 12923-12928.
2. “Magnetic anisotropy of tetrahedral Co<sup>II</sup> Single Ion Magnets: Solid state effects”, S. Sottini, G. Poneti,\* S. Ciattini, N. Levesanos, E. Ferentinos, J. Krzystek, L. Sorace, **P. Kyritsis**,\* *Inorg. Chem.*, **55**, (2016), 9537-9548.
3. “Field-induced slow relaxation of magnetization in the  $S = 3/2$  octahedral complexes trans-[Co{(OPPh<sub>2</sub>)(EPPH<sub>2</sub>)N}<sub>2</sub>(dmf)<sub>2</sub>], E = S, Se: Effects of Co–Se vs Co–S coordination”, E. Ferentinos, M. Xu, A. Grigoropoulos, I. Bratsos, C.P. Raptopoulou, V. Psycharis, S.-D Jiang,\* **P. Kyritsis**,\* *Inorg. Chem. Front.*, **6**, (2019), 1405-1414.
4. “Electronic structure of tetrahedral,  $S = 2$ , [Fe{(EP’Pr<sub>2</sub>)<sub>2</sub>N]<sub>2</sub>], E = S, Se, complexes: Investigation by High-Frequency and -Field EPR, <sup>57</sup>Fe Mössbauer Spectroscopy and Quantum Chemical Studies”, S.A. Stoian,\* M. Moshari, E. Ferentinos, A. Grigoropoulos, J. Krzystek, J. Telser, **P. Kyritsis**,\* *Inorg. Chem.*, **60**, (2021), 10990-11005.
5. “Effects of the halogenido ligands on the Kumada-coupling catalytic activity of [Ni{<sup>t</sup>BuN(PPh<sub>2</sub>)<sub>2</sub>-κ<sup>2</sup>P}X<sub>2</sub>], X = Cl, Br, I”, P.-C. Ioannou, R. Coufal, K. Kakridi, C.P. Raptopoulou, O. Trhlíková, V. Psycharis,\* J. Zedník,\* **P. Kyritsis**,\* J. Vohlídal, *RSC Adv.*, **12**, (2022), 2227-2236.