Athanassios I. Philippopoulos

Assist. Prof. of Inorganic Chemistry

Education

B.Sc. in Chemistry, University of Ioannina (1992)
Ph.D. in Chemistry (Inorganic-Organometallic Chemistry), University of Ioannina (1997)
Post Doctoral studies, University of Ioannina (1998-1999)
Post Doctoral studies, Humboldt University of Berlin, Germany (1999-2003)
Resarch Associate "D", Institute of Physical Chemistry, NCSR "Demokritos" (2003-2006)

Research Field of Interest

- 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

Teaching

Undergraduate:
General and Inorganic Chemistry I (Laboratory training)
Inorganic Chemistry II (Laboratory training)
General and Inorganic Chemistry I for physicists (Teaching and Laboratory training)
General and Inorganic Chemistry I for biologists (Teaching and Laboratory training)

Graduate:
Advanced Inorganic Chemistry
Environment and natural resources
Energy production

Selected Papers

A. I. Philippopoulos, N. Hadjiliadis, C. E. Hart, B. Donnadieu, P. Mc Gowan, R. Poilblanc, "Transition-Metal Derivatives of a Functionalized Cyclopentadienyl Ligand. 15. Synthesis and Structures of Amino Cyclopentadienyl Derivatives of Rhodium(I) and Rhodium(III) Including Water-Soluble Compounds", *Inorg. Chem.* **1997**, *36*, 1842-1849.

A. I. Philippopoulos, B. Donnadieu, R. Poilblanc, N. Hadjiliadis, "Organometallic Rh(III) complexes with the bifunctional ligand [2-(dimethylamino)ethyl]cyclopentadiene. Crystal structure of the [{η^5:η^1-$C_5H_4(CH_2)_2NMe_2$}$Rh^{III}Cl_2$] complex", *J. Organomet. Chem.* **1999**, *582*,

286-291.

A. C. Filippou, **A. I. Philippopoulos**, P. Portius, D. U. Neumann, "Synthesis and Structure of the Germylyne Complexes *trans*-[X(dppe)$_2$W≡Ge(η^1-Cp*)] (X = Cl, Br, I) and Comparison of the W≡Ge Bonds (E = C, Ge) by Density Functional Calculations", *Angew. Chem. Int. Ed*. **2000**, *39*, 2778-2781.

A. C. Filippou, P. Portius, **A. I. Philippopoulos**, "Molybdenum and Tunsten Germylyne Complexes of the General Formula *trans*-[X(dppe)$_2$M≡Ge-(η^1-Cp*)] (X = Cl, Br, I; dppe = $Ph_2PCH_2CH_2PPh_2$; Cp* = C_5Me_5): Syntheses, Molecular Structures and Bonding Features of the Germylyne Ligand", *Organometallics* **2002**, *21,* 653-661.

A. C. Filippou, P. Portius, **A. I. Philippopoulos**, H. Rohde, "Triple Bonding to Tin: Synthesis and Characterization of the Stannylyne Complex *trans*-[Cl(PMe_3)$_4$W≡Sn-C_6H_3-2,6-Mes_2]", *Angew. Chem. Int. Ed*. **2003**, *42*, 445-447.

A. C. Filippou, **A. I. Philippopoulos**, G. Schnakenburg, "Triple Bonding to Tin: Synthesis and Characterization of the Square-Pyramidal Stannylyne Complex Cation [(dppe)$_2$W≡Sn-C_6H_3-2,6-Mes_2]$^+$ (dppe = $Ph_2CH_2CH_2Ph_2$, Mes = C_6H_2-2,4,6-Me_3)", *Organometallics* **2003**, *22,* 3339-3341.

A. C. Filippou, N. Weidemann, G. Schnakenburg, H. Rohde, **A. I. Philippopoulos**, "Tungsten-Lead Triple Bonds: Syntheses and Coordination Chemistry of the Plumbylidyne Complexes *trans*-[X(PMe_3)$_4$W≡Pb-C_6H_3-2,6-$Trip_2$] (X = Br, I: Trip = C_6H_2-2,4,6-iPr_3)", *Angew. Chem. Int. Ed*. **2004**, *43*, 6512-6516.

A. I. Philippopoulos, E. Chatzivasiloglou, A. Terzis, C. P. Raptopoulou, P. Tisnès, C. Picard, P. Falaras, "Synthesis and crystal structure of bis(5'-methyl-6-carboxy-2,2'-bipyridinato)ruthenium(II)", *Inorg. Chem. Commun*. **2005**, *8*, 162-165.

A. C. Filippou, G. Schnakenburg**, A. I. Philippopoulos**, N. Weidemann, "Ge_2 trapped via Triple Bonds between two Metal Centers: Syntheses and Structures of the Germylidyne Complexes *trans,trans*-[Cl(depe)$_2$M≡Ge-Ge≡M(depe)$_2$Cl] (M = Mo, W) – Bonding Analyses of the M≡Ge-Ge≡M chain", *Angew. Chem. Int. Ed*. **2005**, *44*, 5979-5985.

A. C. Filippou, N. Weidemann, **A. I. Philippopoulos**, G. Schnakenburg "Activation of Arylgermanium(II) Chlorides by [Mo(PMe_3)$_6$] and [W(η^2-CH_2PMe_2)H(PMe_3)$_4$]: A New Route to Metal-Germanium Triple Bonds", , *Angew. Chem. Int. Ed*. **2006**, *45*, 6133-6137.

J. Faiz, **A. I. Philippopoulos**, A. G. Kontos, P. Falaras, Z. Pikramenou "Functional supramolecular ruthenium cyclodextrin dyes for nanocrystalline solar cells", *Adv. Funct. Mater.* **2007**, *17,* 54-58.

C. A. Mitsopoulou, I. Veroni, **A. I. Philippopoulos**, P. Falaras, "Synthesis, characterization and sensitization properties of two novel mono and bis carboxyl-dipyrido-phenazine ruthenium(II) charge transfer complexes", *J. Photochem. Photobiol. A*, **2007**, 197, 6-12.

A. I. Philippopoulos, P. Falaras, "Synthesis, characterization and sensitizing properties of heteroleptic Ru(II) complexes based on 2,6-bis(N-pyrazolyl)pyridine and 4,4'-dicarboxy-2,2'-

bipyridine ligands", *Eur. J. Inorg. Chem*. **2007**, 5633-5644.

N. G. Tsierkezos, **A. I. Philippopoulos**, "Conductometric and voltammeteric studies on the bis(triphenyl phosphine) ruthenium(II) complex, cis-[$RuCl_2(L)(PPh_3)_2$], where L: 2(2'-pyridyl)quinoxaline", *Inorg. Chim. Acta* **2009**, *362,* 3079-3087.

G. Konti, E. Chatzivasiloglou, V. Likodimos, G. Kantonis, A. G. Kontos, **A. I. Philippopoulos**, P. Falaras, "Influence of pyridine ligand nature and the corresponding ruthenium(II) dye molecular structure on the performance of dye-sensitized solar cells", *Photochem. Photobiol. Sci.,* **2009**, 8, 726-732.

A. I. Philippopoulos, N. Tsantila, C. A. Demopoulos, C. P. Raptopoulou, V. Likodimos, P. Falaras (*invited paper*), "Synthesis, characterization and crystal structure of the *cis*-[RhL_2Cl_2]Cl complex with the bifunctional ligand (L) 2-(2'-pyridyl)quinoxaline. Biological activity towards PAF (Platelet Activating Factor) induced platelet aggregation", *Polyhedron*, **2009**, 28, 3310-3316.

N. G. Tsierkezos, **A. I. Philippopoulos**, U. Ritter **"**Electrochemical impedance spectroscopy and cyclic voltammetry of *cis*-[$Cr(bipy)_2(SCN)_2$]I (where bipy: 2,2΄-Bipyridine) in polar solvents", *J. Solution Chem.* **2010***, 39*, 897-908.

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