

KONSTANTINOS MERTIS

EMERITUS PROFESSOR

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

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EDUCATION

1968 B.Sc. in Chemistry, NKUA

1972 Ph.D. in Organometallic Chemistry, University of Warwick, England. Title: "Homoallylic complexes of the transition metals"

RESEARCH INTERESTS

- (i) Synthetic and Mechanistic Inorganic and Organometallic Chemistry: Synthesis, characterization and reactivity studies of transition metal clusters containing metal-metal multiple bonds.
- (ii) Homogeneous Catalysis: dihydrogen formation, dioxygen activation and reduction, oxidation of alcohols and alkanes, selective oxidation of alcohols, epoxidation of olefins, selective hydrolysis of nitriles, metathesis polymerization of alkynes and ring opening metathesis polymerization (ROMP) of cycloolefins.

ACADEMIC POSITIONS HELD

2010-today	Emeritus Professor, Department of Chemistry, NKUA, Greece
1990-2010	Professor, Department of Chemistry, NKUA, Greece
1984-1990	Associate Professor, Department of Chemistry, NKUA, Greece
1980-1984	Assistant Professor, Department of Chemistry, NKUA, Greece
1972-1978	Research Fellow, Imperial College of Science and Technology, University of London,
	England

TEACHING

POSTGRADUATE COURSES

Basics of Homogeneous Catalysis, Department of Chemistry. 2004-2018. Catalysis with Clusters, Department of Chemistry. 2004-2018.

PROJECTS (MOST RECENT)

2012-2015: Member of Research Group. Title: Synthesis of Novel Advanced Materials by New Generation
Catalysts via ROMP (Ring Opening Metathesis Polymerization) Reactions (Coordinator: M. Pitsikalis,
NKUA); Source: Operational Program "Education and Lifelong Learning" of the National Strategic
Reference Framework (NSRF), 2012-2015, Research Project Thales 2012-2015.

PARTICIPATION IN CONFERENCE COMMITTEES

- Member of Scientific Committees (FIGIPAS Meetings in Inorganic Chemistry, Hellenic Conferences on Chemistry, Hellenic Catalysis Symposia, Hellenic Symposia on Green Chemistry).
- Organizer of Chemistry Conferences and Symposia.

REFEREE / EDITOR / EDITORIAL BOARD IN INTERNATIONAL JOURNALS

REFEREE

J. Chem. Soc. Chem. Commun, J. Chem. Soc. Dalton Trans., Inorg. Chem., J. Am. Chem. Soc., J. Mol. Catal. A: Chem., J. Organomet. Chem., Polyhedron.

ADDITIONAL INFORMATION

• Publications in referred Journals and special volumes: 53

Presentations in Confrerences: >90

• Number of Heterocitations: >1000, h index: 19

PhD Thesis supervision: >20
MSc. Thesis supervision: >10
BSc Thesis supervision: >30

Referee for Journals: 7

• Scientist in Charge in **5** Research Projects

• Participation in 15 research Projects

SELECTED PAPERS

- "Metathesis polymerization reactions induced by the bimetallic complex (Ph₄P)₂[W₂(μ-Br)₃Br₆]" D. Chriti, A. Grigoropoulos, G. Raptopoulos, G. Charalambidis, V. Nikolaou, A.G. Coutsolelos, M. Pitsikalis, K. Mertis, P. Paraskevopoulou, *Polymers* 7 (2015) 2611. Special Issue: Metal-Mediated Polymer Synthesis
- "Exploring the reactivity of Na[W₂(μ-Cl)₃Cl₄(THF)₂]·(THF)₃ towards the polymerization of selected cycloolefins" N. Saragas, G. Floros, G. Raptopoulos, M. Pitsikalis, P. Paraskevopoulou, K. Mertis, Molecules 2015, 20, 21896-21908. Special Issue: Olefin Metathesis
- "Isolation, characterization and computational studies of the novel [Mo₃(μ₃-Br)₂(μ-Br)₃Br₆]²⁻ cluster anion"
 P. Paraskevopoulou, C. Makedonas, N. Psaroudakis, C.A. Mitsopoulou, G. Floros, A. Seressioti, M. Ioannou, Y. Sanakis, N. Rath, C.J. Gómez García, P. Stavropoulos, K. Mertis, Inorg. Chem. 49 (2010) 2068-2076.
 Included in ChemInform selected abstracts
- 4. "A theoretical study on the solvolytic reactivity of the [Re₃(μ-Cl)₃Cl₉]ⁿ⁻ clusters (n = 3, 4) using ab initio and density functional theory calculations" N. Psaroudakis, K. Mertis, D. G. Liakos, E. D. Simandiras, Chem. Phys. Lett. 369 (2003) 490-494.
- 5. "Structural and Functional Characteristics of Rhenium Clusters Derived from Redox Chemistry of the Triangular [Re $^{III}_3(\mu$ -Cl) $_3$] Core Unit" D. Neumann, P. Paraskevopoulou, N. Psaroudakis, **C. Mertis**, R. J. Staples, P. Stavropoulos, *Inorg. Chem.* 39 (**2000**) 5530-5537.
- 6. "Redox chemistry of the $[Re_3(\mu\text{-Cl})_3X_9]^{3-}$ halides (X = Cl or Br); isolation and structural characterization of the $[\{Re_3(\mu\text{-Cl})_3Br_6(H_2O)(\mu\text{-O})\}_2]^{2-}$ cluster anion" N. Psaroudakis, A. Terzis, C. Raptopoulou, **K. Mertis**, *J. Chem. Soc.*, *Dalton Trans*. (**1997**) 3299.