

# PATRINA PARASKEVOPOULOU

# ASSOCIATE PROFESSOR

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

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### EDUCATION

1998 B.Sc. in Chemistry, NKUA

- 2000 M.Sc. in Inorganic Chemistry and Technology; Department of Chemistry, NKUA. Title: "Study of the Chemical Reactivity of Halogenated Rhenium Clusters. Selective Hydrolysis of Nitriles to Amides"
- 2002 Ph.D. in Chemistry; Department of Chemistry, NKUA. Title: "Synthesis and Characterization of Trinuclear Clusters of Rhenium. Applications in the Selective Hydrolysis of Nitriles and Oxidation of Alcohols"

#### **RESEARCH INTERESTS**

(i) Synthetic Inorganic Chemistry with emphasis on: (a) mononuclear transition metal complexes with redoxactive ligands; (b) binuclear transition metal complexes with metal-metal bonds; and, (c) transition metal oxide and carbide nanoparticles in porous matrices.

(ii) Homogeneous Catalysis: selective oxidation of organic substrates, atom-transfer reactions, controlled radical polymerization of olefins, metathesis polymerization of alkynes and ring opening metathesis polymerization (ROMP) of cycloolefins.

(iii) Electrochemistry: (a) redox properties of metal complexes and (b) mechanistic studies of catalytic reactions.(iv) Porous Materials: Nanostructured inorganic and hybrid inorganic/organic materials for heterogeneous catalysis, capture of toxic chemicals and environmental remediation.

## ACADEMIC POSITIONS HELD

9/2019-today	Associate Professor, Department of Chemistry, NKUA, Greece
6/2015-9/2019	Assistant Professor, Department of Chemistry, NKUA, Greece
9/2009-6/2015	Lecturer, Department of Chemistry, NKUA, Greece
9/2008-9/2009	Postdoctoral Researcher, Department of Chemistry, NKUA, Greece
3/2008-8/2008	Lecturer (under contract; 407/80), Department of Chemistry, NKUA, Greece
7/2007-2/2008	Postdoctoral Researcher, Department of Chemistry, NKUA, Greece
6/2006-6/2007	Postdoctoral Researcher, Department of Chemistry, Missouri University of Science&Technology (formerly the University of Missouri-Rolla), Rolla MO, U.S.A.
9/2003-5/2006	Postdoctoral Researcher, Department of Chemistry, NKUA, Greece

# TEACHING

#### UNDERGRADUATE COURSES

Inorganic Chemistry II, Department of Chemistry. 2010-today Laboratory of Inorganic Chemistry II, Department of Chemistry. 2009-today Chemistry of Materials, Department of Chemistry. 2021-today Chemistry, Department of Geology and Geoenvironment. 2012-today Laboratory of Chemistry, Department of Geology and Geoenvironment. 2009-today

#### POSTGRADUATE COURSES

Topics of Inorganic Chemistry, Department of Chemistry. 2016-today Laboratory Techniques for the Separation of Substances and Structure Elucidation, Department of Chemistry. 2010-today Basics of Homogeneous Catalysis, Department of Chemistry. 2010-today Catalysis with Clusters, Department of Chemistry. 2010-today

#### AWARDS

- DAAD Scholarship: Research Stays for University Academics and Scientists, 11/2017-01/2018, Hamburg University of Technology, Hamburg, Germany.
- Scholarship by the Greek State Scholarships Foundation for the academic year 1999-2000 (graduate studies) for academic excellence. Ranked at the top of the graduate class in Chemistry Department.
- Scholarships by the Greek State Scholarships Foundation (IKY) for the academic years 1994-1997 (undergraduate studies) for academic excellence.

## PROJECTS

- 3/2021: Principal Investigator. CERIC-ERIC 20207082: time allocation for solid-state NMR usage at the National Institute of Chemistry, Ljubljana, Slovenia.
- 11/2020: Principal Investigator. CERIC-ERIC BRR\_636: time allocation for access to SANS at the Budapest Neutron Center, Hungary.
- 5/2019: Principal Investigator. CERIC-ERIC 20187018: time allocation for solid-state NMR usage at the National Institute of Chemistry, Ljubljana, Slovenia.
- 2019-2023: Member of the Core Management Committee ITC Conference Grants Coordinator. "Advanced Engineering and Research of (aero)Gels for Environment and Life Sciences (AERoGELS)" COST Action CA18125 (2019-2023).
- 2016-2022: Principal Investigator. Matching Funds for H2020-NMP-PILOTS-2015 "Nanohybrids" (2014-2019).
- 11/2015-4/2019: Principal Investigator. H2020-NMP-PILOTS-2015 (2015-2019) "NanoHybrids: New generation of nanoporous organic and hybrid aerogels for industrial applications: from laboratory to pilot scale production" (Coordinator: Prof. I. Smirnova, Hamburg University of Technology).
- 2014-2018: Management Committee Substitute. "Explicit Control Over Spin-states in Technology and Biochemistry (ECOSTBio)" COST CM1305 (2014-2018).
- 2012-2015: Research Group Leader. Title: Synthesis of Novel Advanced Materials by New Generation Catalysts via ROMP (Ring Opening Metathesis Polymerization) Reactions (Coordinator: M. Pitsikalis, NKUA); Source: Source: General Secretariat for Research and Technology of Greek Ministry of Education, Lifelong Learning and Religious Affairs, Research Project Thales 2012-2015.
- 2012-2015: Member of Research Group. Title: Polynuclear Transition Metal Complexes: Development of Synthetic Strategies, Reactivity and Applications in Magnetic and Catalytic Materials (Coordinator: S. Perlepes, University of Patras); Source: General Secretariat for Research and Technology of Greek Ministry of Education, Lifelong Learning and Religious Affairs, Research Project Thales 2012-2015.
- 2009-2011: Member of Research Group. "Multifunctional and Switchable Molecular Materials: Design, Synthesis, Characterization and Preparations as Crystals and Thin Films" COST D35-WG11 (2006-2011).

## PARTICIPATION IN CONFERENCE COMMITTEES

- Chair of the 2nd International Conference on Aerogels for Biomedical and Environmental Applications (2022, Athens, Greece).
- Co-chair of the Athens Conference on Advances in Chemistry acac2022 (2022, Athens, Greece).
- Member of the Organizing Committee of IUPAC Global Women's Breakfast (2019-2023, Athens and online).
- Member of the Organizing Committee of the Athens Conference on Advances in Chemistry acac2020 (2021, online).
- Member of the Scientific Committee of the International Conference on Aerogels for Biomedical and Environmental Applications (2020, Santiago de Compostela, Spain).

# REFEREE / EDITOR / EDITORIAL BOARD IN INTERNATIONAL JOURNALS

#### REFEREE

ACS Applied Materials & Interfaces; ACS Applied Nanomaterials; ACS Omega; Bioinorganic Chemistry and Applications; Carbohydrate Polymers; Catalysis Letters; Catalysts; Dalton Transactions; European Polymer Journal; Gels; Green Chemistry; Industrial & Engineering Chemistry Research; Inorganic Chemistry; Inorganics; International Journal of Molecular Sciences; JACS Au; Journal of the Brazilian Chemical Society; Journal of Chemistry; Journal of Coordination Chemistry; Journal of Molecular Structure; Journal of Sol-Gel Science and Technology; Materials; Molecules; Nanomaterials; Nanoscale Advances; New Journal of Chemistry; Open Chemistry; Physical Chemistry Chemical Physics; Polymer; Polymers; Polysaccharides; Powder Technologies; RSC Advances; The Journal of Supercritical Fluids.

### GUEST EDITOR

- Special Issue in Polymers: Synthesis and Characterisation of Aerogels: Fundamentals and Applications (2022).
- Research Topic in *Frontiers*: Towards a Century of Aerogels Advances and Perspectives (participating journals: *Frontiers in Chemistry, Frontiers in Materials, Frontiers in Soft Matter, Frontiers in Bioengineering and Biotechnology*; 2022).

## PATENTS

Fricke, M.; Paraskevopoulou, P.; Gurikov, P.; Chriti, D.; Papastergiou, M.; Raptopoulos, G.; Athamneh, T.; Smirnova, I.; Movahed, S.; Weinrich, D.; Loesberg, W. Polyurea/Polyurethane-Crosslinked Alginate Aerogels, EP3848409A1.

#### ADDITIONAL INFORMATION

- Publications in referred Journals and special volumes: 53
- Presentations in Confrerences: 129
- Number of Heterocitations: >760, h index: 16
- PhD Thesis supervision: 3
- MSc. Thesis supervision: 12
- BSc Thesis supervision: 14
- Referee for Journals: 32
- Scientist in Charge in **5** Research Projects
- Participation in 1 Research Project and in 3 COST Actions
- Referee for Evaluation of graduate students' applications for funding: 2

## SELECTED PAPERS

- "Mechanically strong polyurea/polyurethane-cross-linked alginate aerogels" Paraskevopoulou, P.; Smirnova, I.; Athamneh, T.; Papastergiou, M.; Chriti, D.; Mali, G.; Čendak, T.; Chatzichristidi, M.; Raptopoulos, G.; Gurikov, P. ACS Appl. Polym. Mater. 2020, 2, 1974-1988.
- "Polyurea-crosslinked biopolymer aerogel beads" Paraskevopoulou, P.; Smirnova, I.; Athamneh, T.; Papastergiou, M.; Chriti, D.; Mali, G.; Čendak, T.; Raptopoulos, G.; Gurikov, P. *RSC Adv.* 2020, *10*, 40843– 40852.
- "Evaluation of polyurea-crosslinked alginate aerogels for seawater decontamination" Paraskevopoulou,
  P.; Raptopoulos, G.; Leontaridou, F.; Papastergiou, M.; Sakellari, A.; Karavoltsos, S. *Gels* 2021, 7, 27.
  Special Issue: Aerogels 2020. Highlighted in the CERIC webpage.
- 4. "Metal-doped carbons from polyurea-crosslinked alginate aerogel beads" Raptopoulos, G.; Papastergiou, M.; Chriti, D.; Effraimopoulou, E.; Čendak, T.; Samartzis, N.; Mali, G.; Ioannides, T.; Gurikov, P.; Smirnova, I.; Paraskevopoulou, P. Mater. Adv. 2021, 2, 2684-2699.
- "Fundamental skeletal nanostructure of nanoporous polymer-cross-linked alginate aerogels and its relevance to environmental remediation" **Paraskevopoulou, P.**; Raptopoulos, G.; Len, A.; Dudás, Z.; Fábián, I.; Kalmár, J. ACS Appl. Nano Mater. **2021**, *4*, 10575-10583.
- "Extremely efficient uranium removal from aqueous environments with polyurea-crosslinked alginate aerogel beads" Georgiou, E.; Raptopoulos, G.; Papastergiou, M.; Paraskevopoulou, P.; Pashalidis, I. ACS Appl. Polym. Mater. 2022, 4, 920-928.
- "Efficient removal of polyvalent metal ions (Eu(III) and Th(IV)) from aqueous solutions by polyureacrosslinked alginate aerogels" Georgiou, E.; Pashalidis, I.; Raptopoulos, G.; Paraskevopoulou, P. Gels 2022, 8, 478.
- 8. "Polylactide-grafted metal-alginate aerogels" Raptopoulos, G.; Choinopoulos, I.; Kontoes-Georgoudakis, F.; Paraskevopoulou, P. Polymers 2022, 14, 1254.