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PERSONAL INFORMATION

Married, 2 children (sons). Date of Birth: 17 September 1967, in Komotini (Thrace), Greece.

CURRENT AFFILIATION

University of Crete, Department of Chemistry, Voutes, Heraklion GR-71003, Crete, GREECE

Full Professor of Chemistry (Inorganic Chemistry Division) October '14-present

EMPLOYMENT HISTORY

University of Crete, Department of Chemistry, Voutes, Heraklion GR-71003, Crete, GREECE

Associate Professor of Chemistry (Inorganic Chemistry Division) June '09-October '14

University of Crete, Department of Chemistry, Voutes, Heraklion GR-71003, Crete, GREECE

Assistant Professor of Chemistry (Inorganic Chemistry Division) May '03-June '09

University of Crete, Department of Chemistry, Heraklion GR-71409, Crete, GREECE, *Non-tenured*

(contract) Professor of Chemistry (Inorganic Chemistry Division) September '02- May '03

(Military Service) September '01- September '02

ONDEO-Nalco Company (previously Nalco Chemical Company), a Division of SUEZ, Specialty

Division Research, Naperville, Illinois, U.S.A., *Senior Chemist* June '00-July '01

Application of novel chemical water treatment technologies in the field. Antiscalant & anticorrosion technologies, monitoring of scale and corrosion, heat exchanger fouling prevention, on-line chemical cleaning technologies, technical customer support.

Nalco Chemical Company, Global Water Research, Naperville, Illinois, U.S.A., *Senior Chemist*, October '98-May '00.

Mineral scale formation and inhibition technologies, synthesis, characterization and performance of materials, dispersant and antiscalant polymers as they apply in chemical water treatment, scale and corrosion monitoring, dissolution kinetics, phosphorous and calcium coordination chemistry.

University of North Carolina at Chapel Hill, Department of Chemistry, Chapel Hill, North Carolina, U.S.A., *Post-doctoral Fellow*, with Prof. Thomas J. Meyer, November '95-September '98

Design of metal complexes used in intra- and intermolecular electron transfer, metal-nitrogen redox chemistry, nitrogen, oxygen, and small molecule activation at metal sites, and advanced spectroscopic and electrochemical techniques.

University of Michigan, Department of Chemistry, Ann Arbor, Michigan, U.S.A., *Post-doctoral Fellow*, August '95-November '95.

Expanded my expertise on designing catalytic systems used as biomimetic materials and on the systematic assembly of supramolecular architectures as potential “molecular reactors”.

University of Michigan, Department of Chemistry, Ann Arbor, Michigan, U.S.A., *Graduate Student Research Assistant*, July '92-July '95.

Gained experience on manipulation of air-sensitive compounds and developed skills on methods of characterization of inorganic compounds.

University of Michigan, Department of Chemistry, Ann Arbor, Michigan, U.S.A., *Graduate Student Teaching Assistant*, September '90-June '92.

Conducted undergraduate teaching laboratory and discussion sections in General, Inorganic and Organic Chemistry.

EDUCATION

University of Michigan, Department of Chemistry, Ann Arbor, Michigan, U.S.A.; Ph.D. in Chemistry (Ph.D. Thesis Supervisor: Professor Dimitri Coucouvanis), August **1995**.

National University of Athens, Department of Chemistry, Athens, Greece; Bachelor (Ptychion) in Chemistry, March **1990**.

Ph. D. THESIS RESEARCH

Field: *Inorganic-Bioinorganic Chemistry and Catalysis*

Title: *Clusters with $MoFe_3S_4$ Subunits and Molybdenum-Coordinated Polycarboxylate Ligands: Structural and Reactivity Models for the Iron-Molybdenum Cofactor of Nitrogenase*

CURRENT RESEARCH INTERESTS AND PROJECTS

Coordination Polymers based on Metal Phosphonates	{ Crystal Engineering Chemical water treatment (corrosion)
Chemical water treatment (additives)	{ Pathological biomineralization and therapies Crystal Inhibition and inhibitor chemistry Green chemistry
Chemistry of inorganic colloids	{ Biosilicification/Desilicification modeling Chemical water treatment (additives)
Chemistry of gels	{ Controlled release of pharmaceutical ingredients Crystal growth / engineering in confined spaces

RESEARCH AND TECHNICAL EXPERTISE

- Metal Phosphonate chemistry, crystal engineering, materials synthesis.

- Colloidal silica and silicates-containing composite materials. Mechanistic studies on formation and dissolution of colloidal silica. Effects of polymers on colloidal silica properties.
- Chemical water treatment, prevention and inhibition of mineral scale deposits (such as SiO_2 , CaCO_3 , $\text{Ca}_3(\text{PO}_4)_2$, CaSO_4 , Mg-silicate); metal corrosion inhibition.
- Synthesis, characterization, selection and utilization of dispersant homo-, co-, and terpolymers; study of polymer/surface interactions.
- Precipitation and dissolution kinetics of sparingly soluble salts; organophosphorus chemistry; coordination chemistry of the alkaline earth metals.
- Technology and technology transfer related to cooling water applications, operation of cooling towers, oilfield applications, water and wastewater purification and treatment.
- Rigorous and in depth experience in synthesis and characterization of coordination compounds and metal containing clusters. Manipulation of air-sensitive and hazardous materials using standard Schlenk and glove-box techniques.
- Inventive in designing and conducting catalytic systems, in improving catalyst efficiency, and catalyst identification and recovery.
- Proficient in a broad spectrum of analytical and instrumental techniques and their interpretation, such as NMR, far, near and mid FT-IR, various chromatographic techniques (HPLC, GC), electronic spectroscopy (UV-visible), electrochemical techniques (cyclic voltammetry, differential pulse polarography, electrocatalysis), Scanning Electron Microscopy (SEM), X-Ray Fluorescence, water chemistry analytical techniques, powder and single crystal X-ray crystallography.
- Involvement in projects such as oxidation and amidation reactions in organic chemistry, atom/group transfer reactions, catalytic reduction of carbon dioxide, photochemical energy conversion, nitrogen and oxygen activation, intramolecular and intermolecular electron transfer, electrocatalysis, various kinds of spectroscopy (resonance raman, transient absorption, luminescence spectroscopy) and advanced electrochemical techniques.

TEACHING

Courses taught:

- (1) Basic Inorganic Chemistry (Undergraduate Core Course, 12 semesters, Fall 2003 - Winter 2015).
- (2) Organometallic Chemistry (Undergraduate Elective Course, 3 semesters, Winter 2003, Winter 2004, Winter 2005)
- (3) Water Treatment and Disinfection Technologies (Co-Teaching, Graduate Course, 2 semesters, Summer 2005, Winter 2009)
- (4) Chemical Technology & Nanotechnology (Undergraduate Elective Course, 3 semesters, Winter 2006, Winter 2007, Winter 2008)
- (5) Inorganic Biomaterials (Undergraduate Elective Course, 5 semesters, Fall 2009 - Fall 2015)
- (6) Advanced Solid State Chemistry (Graduate Course, 5 semesters, Winter 2010 - Winter 2015, co-

teaching)

STUDENT SUPERVISION

Group Members (Past and Present)

Ph.D. Thesis Research Project (*graduated*)

- (1) Ms. Maria Papadaki (defense 18-12-2012)
- (2) Mrs. Zafeiria Anagnostou (defense 22-10-2015)

Ph.D. Thesis Research Projects (*ongoing*)

- (1) Mr. Kostas Papathanasiou
- (2) Mrs. Melina Preari
- (3) Mrs. Eva Tzagkaraki
- (4) Mr. Ioannis Grammatikakis

Master Degrees (*graduated*)

- (1) Ms. Stella Katarachia
- (2) Ms. Eleftheria Neofotistou
- (3) Ms. Eleftheria Mavredaki
- (4) Ms. Aggeliki Stathoulopoulou
- (5) Mrs. Antonia Ketsetzi
- (6) Ms. Eleni Barouda
- (7) Ms. Maria Papadaki
- (8) Mrs. Zafeiria Anagnostou
- (9) Ms. Katerina Dolapsaki
- (10) Ms. Maria Somara
- (11) Mr. Manolis Antonogiannakis
- (12) Ms. Maria Paspalaki
- (13) Ms. Niki Stavgianoudaki
- (14) Mr. Giannis Grammatikakis
- (15) Ms. Anna Tsistraki
- (16) Mr. Kostas Papathanasiou
- (17) Mrs. Melina Preari
- (18) Ms. Semina Angeli
- (19) Mrs. Eva Tzagkaraki

Master Degrees (*ongoing*)

- (1) Ms. Antonia Vasiliou
- (2) Ms. Eirini Armakola
- (3) Ms. Iro Spinthaki

- (4) Mr. Ioannis Aristodimou
- (5) Ms. Argyro Moshona
- (6) Ms. Maria Vassaki

Undergraduate Thesis Research Projects (*graduated*)

- (1) Mr. Panos Lykoudis
- (2) Mr. Christos Mantzaridis
- (3) Ms. Eleftheria Mavredaki
- (4) Mr. Michalis Tsiknakis
- (5) Mr. Kostas Ritzakis
- (6) Ms. Emi Dagounaki
- (7) Ms. Ioanna Anastasiou
- (8) Ms. Eva-Maria Sarigiannidou
- (9) Mr. Antonis Katsaros
- (10) Mr. Anastasios Psaroudakis
- (11) Ms. Niki Stavgianoudaki
- (12) Mr. Kostas Pachis
- (13) Mr. Nikos Daskalakis
- (14) Mr. Michalis Nikolaidis
- (15) Ms. Maria Paspalaki
- (16) Ms. Ioanna Theodorou
- (17) Ms. Anna Tsistraki
- (18) Mr. Nikos Famelis
- (19) Ms. Semina Aggeli
- (20) Ms. Theano Mavrikou
- (21) Mr. Kostas Papathanasiou
- (22) Ms. Aggeliki Panera
- (23) Ms. Ioanna Antonakaki
- (24) Mr. Dimitris Varouhas
- (25) Ms. Antonia Vasiliou
- (26) Mr. Dimitris Michailidis
- (27) Ms. Iro Spinthaki
- (28) Ms. Maria Evaggelopoulou
- (29) Ms. Maria Gika
- (30) Ms. Eirini Armakola
- (31) Mr. Ioannis Aristodimou
- (32) Mr. Sophocles Chalikadakis
- (33) Ms. Argyro Moshona
- (34) Ms. Maria Vassaki

Undergraduate Thesis Research Projects (*ongoing*)

- (1) Ms. Athina Melissourgaki
- (2) Ms. Georgia Skordalou
- (3) Mr. Lefteris Tripodianos
- (4) Ms. Dafni Chandrinou

GRANTS, PROPOSALS AND FUNDING (chronologically)

- (1) Educational Exchange to the Chemistry Department, Charles University, Prague, Czech Republic (November 2003).
- (2) Educational Exchange to the Chemistry Department, University of Kuopio, Kuopio, Finland (2005).
- (3) Educational Exchange to the Chemistry Research Institute, Hungarian Academy of Sciences, Budapest, Hungary (2006).
- (4) Bilateral Scientific and Technological Cooperation Grant (Greece-Romania) from the General Secretariat of Science & Technology, “Development and Assessment of Multifunctional, Environmentally Acceptable Polymers Used in Inhibition of Deposition and Scaling Processes”, 2005-2007, €11,740.
- (5) Bilateral Scientific and Technological Cooperation Grant (Greece-Czech Republic) from the General Secretariat of Science & Technology, “Lanthanide Complexes for Medical Applications”, 2005-2007, €11,740.
- (6) Educational Exchange to the Chemistry Department, Charles University, Prague, Czech Republic (2007).
- (7) Bilateral Scientific and Technological Cooperation Grant (Greece-Turkey) from the General Secretariat of Science & Technology, “Control of Calcium-Related Biomineralization by Chemical additives”, 2005-2007, €11,740.
- (8) Research Demonstration Program for the Prefecture of Crete (PEPER-Crete): “Construction of a combined ultrafiltration and desalination prototype unit for the treatment of spent water from biologically treated waste water (HYPERBIO)” (with SYCHEM S.A., €30,000).
- (9) Proposal “Nanostructured Materials for Hydrogen Storage Applications”, from the University of Crete Research Council, 2007-2009, €5,000).
- (10) Proposal entitled “Inorganic-Organic Hybrid Materials and Their Applications in Storage of Gases of Environmental Interest” for a PhD student under the HERAKLITOS Framework (Ministry of Education). Amount €45,000.
- (11) A Proposal application was submitted in 2007 to the European Union, under “Cooperation, Theme 5, Topic ENERGY.2007.1.2.4: Novel nanostructured materials for hydrogen storage”. Title: “Metal Phosphonate Porous Frameworks for Hydrogen Storage Applications (METAMORPHOSYS)” (Coordinator of a Consortium of 6 Universities, 1 SME: U. Crete, U. Malaga, Nottingham Trent U., U. of Caen, U. Kuopio, Texas A&M U., Hystore Technologies

- Ltd.). I was the Coordinator of this Consortium. Amount requested, €1,500,000. The proposal passed to the 2nd stage, but was not funded. It was ranked 3rd.
- (12) Educational Exchange to the Chemistry Department, Charles University, Prague, Czech Republic (October 2009).
 - (13) Proposal “Si Transport Modeling in Diatoms by Studying the Biomimetic Interactions Between Polymers and Soluble Forms of Silicic Acid”, from the University of Crete Research Council, 2010-2012, €2,500.
 - (14) Proposal “Dendrimers for Water Treatment”, from Dendritech Inc. (USA), 2011-2012, €12,500.
 - (15) Proposal “Controlled Release of Phosphonate Pharmaceuticals for Osteoporotic Pathological Conditions from Biocompatible Alginate Matrices”, from the University of Crete Research Council, 2012-2013, €2,500.
 - (16) Educational Exchange to the Chemistry Department, Charles University, Prague, Czech Republic (November 2011).
 - (17) Proposal “Bioinspired synthesis of silica materials and nanocomposites based on smart polymers as matrices” (SILICAMPS), funded by the EU under the ERANET-RUS framework. Coordinator: University of Crete (K.D. Demadis), Partners: Russian Academy of Sciences, Dresden University of Technology, and University of Helsinki. 2012-2014, Funding €553,000.
 - (18) Proposal “Metal Sulfate Scale Control”, from Ashland Water Technologies (USA), 2012-2014, €91,250.
 - (19) Proposal “Chiral Inorganic-Organic Hybrids”, from the University of Crete Research Council, 2013-2014, €1,500.
 - (20) Proposal “Diseño de nuevos materiales híbridos organo-inorgánicos multifuncionales para aplicaciones medioambientales”, in collaboration with Prof. Aurelio Cabeza, University of Malaga, Spain, 2014-2017, €104,796.
 - (21) Proposal “**HER**itage **R**esilience **A**gainst **CL**imate **E**vents on **S**ite” (**HERACLES**), HORIZON 2020, Consortium of 16 Institutions, Budget €6,564,314, of which €320,250 allocated to K.D. Demadis at the University of Crete.

SCIENTIFIC COLLABORATIONS (alphabetically)

- (1) Prof. Miguel Aranda and Prof. Aurelio Cabeza, Departamento de Química Inorgánica, Cristalografía y Mineralogía, Facultad de Ciencias, Universidad de Málaga, Spain.
- (2) Prof. Dr. Eike Brunner, Institute of Bioanalytical Chemistry, Dresden University of Technology, Dresden, Germany.
- (3) Prof. Herman S. Cheung, Professor of Medicine and Orthopaedics, School of Medicine-Arthritis Division, University of Miami, Miami, U.S.A.
- (4) Prof. Abraham Clearfield, Department of Chemistry, Texas A&M University, College Station, USA.
- (5) Prof. Dr. Hermann Ehrlich, Group Leader, Biomineralogy and Extreme Biomimetics, Institute of Experimental Physics, TU Bergakademie, Freiberg, Germany.

- (6) Dr. Gisbert Grossmann, Dresden University of Technology, Dresden, Germany.
- (7) Prof. Gary Hix, School of Biomedical and Natural Sciences, Nottingham Trent University, Great Britain.
- (8) Dr. Gheorghe Ilia and Dr. Adriana Popa, Institute of Chemistry, Romanian Academy, Timisoara, Romania.
- (9) Prof. Ivan Lukeš, Department of Chemistry, Charles University, Prague, Czech Republic.
- (10) Prof. Petros Koutsoukos, Department of Chemical Engineering, University of Patras, Patras, Greece.
- (11) Prof. Gellert Mezei, Department of Chemistry, Western Michigan University, Kalamazoo, MI, USA.
- (12) Prof. Anne Neville, Professor, Department of Mechanical Engineering, University of Leeds, United Kingdom.
- (13) Prof. Mualla Öner, Department of Chemical Engineering, Yildiz Technical University, Istanbul, Turkey.
- (14) Dr. Viviana Ramos, Instituto de Estudios Biofuncionales, Universidad Complutense, Madrid, Spain.
- (15) Prof. Raphael G. Raptis, Department of Chemistry, Florida International University, Miami, FL, U.S.A.
- (16) Prof. Jouko Vepsäläinen, Department of Chemistry, Eastern Finland University, Kuopio, Finland.
- (17) Prof. Didier Villemin, Groupe Catalyses en Synthèse, École Nationale Supérieure d'Ingénieurs de Caen (ENSICAEN), Université de Caen, France.

INVITED LECTURES-TALKS (reverse chronological order, most recent first)

- (58) Bioinspired “Green” Scale Inhibitors For Mitigation of Silica Scales, *Symposium on Industrial Water Treatment: Trends, Challenges, and Solutions, Corrosion/NACE Expo 2016, 62nd Annual Conference & Exposition, Vancouver, Canada, March 6-11 2016.*
- (57) Inhibition of crystallization and deposition of inorganic foulants via chemical approaches, *Symposium on “Theoretical and experimental study of the controlled precipitation of inorganic Salts in granular and consolidated Porous Media (SPM)”, Patras, Greece, 29 October 2015.*
- (56) A series of two Lectures to the Graduate Students of the *Facultad de Ciencias of the University of Malaga, Spain, September 21-26, 2015.* (a) Gels: formation, structure and utilization in crystal growth. (b) Inorganic materials for industrial applications.
- (55) Hot scaling issues in hot geothermal wells. Invited talk at the Working Party #1 Business Meeting, *EUROCORR-2015: The European Corrosion Congress, 6-10 September 2015, Graz, Austria.*
- (54) Gypsum precipitation: Strategies for crystallization and deposition control. Invited talk at *Solenis Inc. (ex-Ashland), Wilmington, DE, USA, 15 October 2014.*
- (53) Naturally-derived and synthetic polymers as biomimetic enhancers of silicic acid solubility in

- (bio)silicification processes. *15th International Conference on Polymers and Organic Chemistry (POC-2014, organized by the International Union of Pure and Applied Chemistry), Timisoara, Romania, 10-13 June 2014*. Plenary Lecture.
- (52) A series of two Lectures to the Graduate Students of the *Facultad de Ciencias of the University of Malaga, Spain, May 12-16, 2014*. (a) Gels: formation, structure and utilization in crystal growth. (b) Synthetic, structural and applications mapping of metal phosphonate materials.
- (51) Designed chemical strategies to corrosion inhibition at the nanoscale with innovative hybrid materials. "*Corrosion Protection - Key to Energy and Environmental Safety*", *Moscow, Russian Federation, December 3-5, 2013*. Plenary Lecture.
- (50) Playing with molecules in the Biosilicification playground. *Dresden University of Technology, Dresden, Germany, September 2, 2013*.
- (49) Crystals and Crystal Growing. *Facultad de Ciencias of the University of Malaga, Spain, May 29, 2013*.
- (48) Mineral Scaling and its Inhibition in Membrane Systems. *King Abdullah University of Science and Technology (KAUST), Desalination Science and Technology Center, February 18, 2013*.
- (47) Silica Scale Formation and Inhibition by Chemical Interventions. *King Abdullah University of Science and Technology (KAUST), Advanced Membranes and Porous Materials Center, February 17, 2013*.
- (46) Smart Hybrid Materials. *King Abdullah University of Science and Technology (KAUST), Department of Chemical Sciences, February 16, 2013*.
- (45) Metal Phosphonate Hybrid Materials: Synthesis, Architectures, Functionality. Department Seminar presentation at the *Department of Chemistry, University of Athens, February 13, 2013*.
- (44) Phosphorus compounds and their utilization in water treatment applications. Invited oral presentation at the Workshop "Better Phosphates Materials for a Better World", organized by the *Office Chérifien des Phosphates, El Jadia, Morocco, September 19-22, 2012*.
- (43) Untangling the "Gordian Knot" of water treatment: Designed approaches to silica scale inhibition. Invited talk at *Ashland Water Technologies, Wilmington, DE, USA, 21 August 2012*.
- (42) Good scale-bad scale: How can metal phosphonates contribute to corrosion inhibition. Invited oral presentation at the Symposium "Mineral Scales in Biological and Industrial Systems" sponsored by the Division of Colloidal and Surface Chemistry. *American Chemical Society Fall Annual Meeting, Philadelphia, PA, USA, August 19-23, 2012*.
- (41) Silica scale inhibition: Untangling the "Gordian Knot" of scale formation in industrial waters. Invited oral presentation at the Symposium "Mineral Scales in Biological and Industrial Systems" sponsored by the Division of Colloidal and Surface Chemistry. *American Chemical Society Fall Annual Meeting, Philadelphia, PA, USA, August 19-23, 2012*.
- (40) Untangling "Gordian Knots" in Water Treatment. *International Federation of Non-Linear Analysts World Congress, Athens, Greece, June 25-July 1 2012*.
- (39) Scale formation and corrosion issues in water treatment. Student Lecture, *Department of Chemical & Process Engineering, University of Strathclyde, Glasgow, Scotland, November 23,*

- 2011.**
- (38) Silica Scale Formation and Inhibition: A Journey to the “Exotic” Part of Water Treatment, *Department of Chemical & Process Engineering, University of Strathclyde, Glasgow, Scotland, November 23, 2011.*
- (37) Coordination Polymers Based on Metal Phosphonates: From Synthesis to Potential Applications, *Department of Chemistry, Charles University, Prague, Czech Republic, October 31, 2011.*
- (36) A series of three Lectures to the Graduate Students of the *Facultad de Ciencias of the University of Malaga, Spain, June 14-24, 2011.* (a) Biomineralization and inorganic structures of Life, (b) General Principles of Biomineralization, and (c) Pathological Biomineralization.
- (35) 1D, 2D and 3D Architectures in Metal Phosphonate Hybrid Frameworks: From Synthesis to Applications, *College de France, Chimie de la Matière Condensée de Paris, France, July 18, 2011.*
- (34) The Use of Phosphonate Ligands in the Construction of 1D, 2D and 3D Metal Phosphonate Frameworks, *Universite de Caen, ENSICAEN, France, July 12, 2011.*
(http://www.lcmt.ensicaen.fr/46780673/0/fiche_actualite/&RH=LCMT_FR)
- (33) The Process of Biosilicification in Nature and How We Can Mimic its Various Aspects *In Vitro*, *College de France, Chimie de la Matière Condensée de Paris, France, September 14, 2010*
(<http://www.labos.upmc.fr/lcmcp/?q=node/1390>).
- (32) Biosilicification: The Wonderful Process of How Nature Produces Silica, *Facultad de Ciencias of the University of Malaga, Spain, July 15, 2010.*
- (31) 1D, 2D and 3D Architectures in Metal Phosphonate Hybrid Frameworks: From Synthesis to Applications, in the *Workshop “Progress in Phosphorus Chemistry: Phosphorus Derivatives as Ligands and Ion Exchangers”, 4-5 May 2010, Timisoara, Romania.*
- (30) “Breathing” in Adsorbate-Responsive Metal Phosphonate Frameworks, *Department of Chemistry, Charles University, Prague, Czech Republic, October 26, 2009.*
- (29) A series of three Lectures to the Graduate Students of the *Facultad de Ciencias of the University of Malaga, Spain, June 1-11, 2009.* (a) Biomineralization: The role of inorganic materials in Life, (b) Metal-Organic Frameworks (MOF’s): Chemistry and applications, and (c) Inorganic materials in industrial processes.
- (28) Metal Phosphonate Chemistry: From Synthetic Curiosities to Real Applications. *Facultad de Ciencias of the University of Malaga, Spain, June 24, 2008.*
- (27) (Bio)Silicification: Understanding the Silica-Producing “Factory” in Nature, *Department of Chemistry, Charles University, Prague, Czech Republic, March 27, 2008.*
- (26) Metal Phosphonate Chemistry: New Approaches and Developments, *Department of Chemistry, Charles University, Prague, Czech Republic, May 16, 2007.*
- (25) Inhibitor Chemistry for Oilfield Scales in Relation to Oil-Field Drilling Applications. *Department of Petroleum Engineering, Heriot-Watt University, Edinburgh, Great Britain, November 17, 2006.*

- (24) Silica and Metal-Silicate Scale Deposits in Process Waters: Mitigation Approaches Based on Chemical Additives. *British Association for Crystal Growth Annual Meeting, Edinburgh, Great Britain, September, 10-12, 2006.*
- (23) Metal-Phosphonate Chemistry: From Synthetic Endeavors to Nanotechnology Applications. *Chemical Research Center, Hungarian Academy of Sciences, Budapest, Hungary, March 29, 2006.*
- (22) Magnesium Silicate Formation and Control. *Rhodia Company, Oldbury, Birmingham, United Kingdom, October 19, 2005.*
- (21) Phosphonate Chemistry in Industrial Process Water Treatment. *Solutia Company, Louvain, Belgium, February 23, 2005.*
- (20) Industrial Water Systems: Problems, Challenges and Solutions. *AQUA2005: Aquaculture of South East European Countries, Athens, Greece, October, 21-23, 2005.*
- (19) The Role of Organophosphate-Based Therapies in the Management of Calcium Deposition-Related Biomineralization Disorders. *Department of Chemistry, University of Kuopio, Finland, November 3, 2004.*
- (18) Industrial Cooling Water: Problems and Solutions Based on Chemical Approaches, *WATERTEC 2004, Athens, Greece, October 29-November 1, 2004.*
- (17) Untangling Gordian Knots in Biological and Non-Biological Crystal Growth via Designed Chemical Approaches, *Department of Chemistry, Charles University, Prague, Czech Republic, October 15, 2003.*
- (16) Crystal Growth in Biological and Industrial Systems: “Gordian Knots” and Possible Solutions, *National Hellenic Research Foundation, Athens, Greece, February 27, 2004.*
- (15) Biological and Non-Biological Crystallization and the Contribution of Chemical Research, *Annual Graduate Student Chemistry Conference, Anogeia, Crete, 27-29 June, 2003.*
- (14) Finessing in Chemistry With Dimitri (Symposium in Honor of the 60th Birthday of Professor Dimitri Coucouvanis), *Department of Chemistry, The University of Michigan, Ann Arbor, MI, U.S.A., April 20th, 2001.*
- (13) Small Molecule Activation and the Biomimetic Chemistry of Synthetic Models of the Nitrogenase Enzyme. *Department of Chemistry, University of Crete, Heraklion, Greece, April 2000.*
- (12) Correlations of Atom and Electron Transfers in Osmium Complexes. *Department of Chemistry, University of Crete, Heraklion, Greece April, 2000.*
- (11) Designed Architectural Motifs as Molecular Reactors in Biorelated Chemistry, Small Molecule Activation and Catalysis. *UOP, Des Plaines, Illinois, U.S.A. January 2000.*
- (10) Atom and Multiple Electron Transfers in the Activation of Small Molecules. *Department of Chemistry and Biochemistry, University of Delaware, Newark, Delaware, U.S.A., September 1998.*

- (9) Multielectron Reductions and Electron Transfer Chemistry Based on Mo/Fe/S Clusters and Osmium Polypyridyl Complexes. *Nalco Chemical Company, Naperville, Illinois, U.S.A., October 1997.*
- (8) Atom and Electron Transfer Chemistry Based on Osmium Polypyridyl Complexes. *BetzDearborn, Trevoise, Pennsylvania, U.S.A., October 1997.*
- (7) Structural and Functional Models for the Enzyme Nitrogenase. *Du Pont de Nemours, Wilmington, Delaware, U.S.A., June 1997.*
- (6) Bioinorganic, Redox Chemistry and Catalysis in the Activation of Nitrogen-Containing Molecules. *Procter and Gamble Inc., Cincinnati, Ohio, U.S.A., May 1997.*
- (5) Catalytic and Redox Studies in the Activation of Nitrogen on Mo/Fe/S Clusters and Osmium Polypyridyl Complexes. *The Clorox Company, Pleasanton, California, U.S.A., May 1997.*
- (4) Nitrogen Activation on Mo/Fe/S Clusters and Osmium Complexes: Bioinorganic, Redox Chemistry and Catalysis. *Department of Chemistry and Biochemistry, University of Delaware, Newark, Delaware, U.S.A., March 1997.*
- (3) Interconversion of Oxidation States of Nitrogen on Mo/Fe/S Clusters and Osmium Complexes. *Department of Chemistry, Brandeis University, Waltham, Massachusetts, U.S.A., January 1997.*
- (2) Nitrogen Chemistry on Mo/Fe/S Clusters and Osmium Complexes: Bioinorganic, Redox Chemistry and Catalysis. *Department of Chemistry, University Of Utah, Salt Lake City, Utah, U.S.A., December 1996.*
- (1) Activation of Dinitrogen at Binuclear Sites. *Inorganic Seminar Presentation, Department of Chemistry, University of Michigan, Ann Arbor, Michigan, U.S.A., April 1992.*

SCIENTIFIC CONFERENCE PRESENTATIONS (SELF PRESENTATION, reverse chronological order, most recent first)

- (69) Bioinspired “Green” Scale Inhibitors For Mitigation of Silica Scales. *CORROSION 2016, Symposium on Industrial Water Treatment: Trends, Challenges, and Solutions, March 2016, Vancouver, Canada.*
- (68) Control of Gypsum Scaling and Deposition by Phosphonate Chemical Additives: Profound Effects of Inhibitor Structure. *CORROSION 2016, Symposium on Industrial Water Treatment: Trends, Challenges, and Solutions, March 2016, Vancouver, Canada.*
- (67) Cooperative Interactions Involving Chemical Moieties on Bioinspired Polymer Backbones and Silica Species. *13th International Symposium on Biomineralization (Biomin-13), 16-19 September 2015, Granada (Spain).*
- (66) Bioinspired “Green” Scale Inhibitors to Combat Silica Scale Deposits. *EUROCORR-2015: The European Corrosion Congress, 6-10 September 2015, Graz, Austria.*
- (65) Unraveling the Intricacies of Corrosion Inhibition by Metal Phosphonate Anticorrosion Coatings. *EUROCORR-2015: The European Corrosion Congress, 6-10 September 2015, Graz, Austria.*

- (64) Bioinspired Insights Into Silicic Acid Stabilization Mechanisms: The Dominant Role of Polymer-Induced Hydrogen Bonding. *4th International Conference on Multifunctional, Hybrid and Nanomaterials (Hybrid Materials 2015), Sitges (near Barcelona), Spain, 9-13 March 2015.*
- (63) Stabilizing silicic acid with charged and neutral organic polymers. Possible relevance to “Si pools”. *12th International Symposium on Biomineralization (Biomin-12), 27-30 August 2013, Freiberg, Saxony (Germany).*
- (62) “Green” scale inhibitors in water treatment processes: The case of silica scale inhibition. *13th International Conference on Environmental Science and Technology (CEST 2013), Athens, Greece, September 5-7, 2013.*
- (61) Modeling the “Silicon Pools” in Diatoms: Stabilization of Soluble Silica Species by Charged or Neutral Oligomers and Polymers. *3rd International Conference on Multifunctional, Hybrid and Nanomaterials, Sorrento, Italy, March 3-7, 2013.*
- (60) “Green” Scale Inhibitors. *EUROCORR-2012: The European Corrosion Congress 2012, Istanbul, Turkey, September 9-13, 2012.*
- (59) Metal Phosphonate Anticorrosion Coatings: Insights on the Corrosion Inhibition Mechanism at the Molecular Level. *EUROCORR-2012: The European Corrosion Congress 2012, Istanbul, Turkey, September 9-13, 2012.*
- (58) Good scale-bad scale: How can metal phosphonates contribute to corrosion inhibition. Symposium on “Mineral Scales in Biological and Industrial Systems”. *American Chemical Society Fall Annual Meeting, Philadelphia, PA, USA, August 19-23, 2012.*
- (57) Silica scale inhibition: Untangling the "Gordian Knot" of scale formation in industrial waters. Symposium on “Mineral Scales in Biological and Industrial Systems”. *American Chemical Society Fall Annual Meeting, Philadelphia, PA, USA, August 19-23, 2012.*
- (56) Utilization of Biodegradable Additives for Silica Scale Control: Application in Industrial Water Systems. *4th Macedonian Environmental Conference, March 18-20, 2011, Thessaloniki, Greece.*
- (55) Use of “Green” Biopolymers in the Inhibition of Sparingly Soluble Salts. *3rd Conference on Green Chemistry and Sustainable Development, 25-27 September 2009, Thessaloniki, Greece.*
- (54) “Breathing” Metal Phosphonate: Applications for Ammonia Storage. *4th Greek Conference on Porous Materials, 22-23 October 2009, Patras, Greece.*
- (53) Metal Phosphonate Inorganic-Organic Hybrid Materials: Structural Architectures and Applications. *10th Greece-Cyprus Conference, 2-4 July 2009, Heraklion, Crete, Greece.*
- (52) Bioinspired Control of Colloidal Silica by Using Multicomponent Polymeric Systems. *1st International Conference on Multifunctional, Hybrid and Nanomaterials, 15-19 March 2009, Tours, France.*
- (51) Metal Tetrakisphosphonate Inorganic-Organic Hybrid Materials and Their Corrosion Inhibiting Passive Films. *1st International Conference on Multifunctional, Hybrid and Nanomaterials, 15-19 March 2009, Tours, France.*
- (50) Inhibitory Effects of “Green” Additives on the Crystal Growth of Sparingly Soluble Salts. *3rd*

- Scientific Conference on Water Science and Technology (AQUA 2008), 16-19 October 2008, Helexpo Palace, Athens, Greece.*
- (49) Inorganic-Organic Hybrids Based on Metal Phosphonates. Applications in Anti-Corrosion Protective Coatings. *1st International Conference on Metal Organic Frameworks and Open Framework Compounds – MOF 2008, October 8-10, 2008, Kongresshalle Augsburg, Germany.*
- (48) Structural Characterization of Unsaturated Layered Metal(II) Phosphonates. *11th European Powder Diffraction Conference (EPDIC) 19-22 September 2008, Warsaw, Poland. 1*
- (47) Synthesis, structural and chemical characterization of $\text{Ca}(\text{HO}_3\text{PCH}_2)_2\text{N}(\text{H})(\text{CH}_2)_6\text{N}(\text{H})-(\text{CH}_2\text{PO}_3\text{H})_2 \cdot 2\text{H}_2\text{O}$. *57th Annual Conference on Applications of X-ray Analysis, Denver, CO, USA, 4–8 August 2008.*
- (46) Biodegradable “Green” Polymers as Inhibitors of SiO_2 Formation in Process Water Systems. *Academic Days, Timisoara, Romania, May 24- 25, 2007.*
- (45) Being “Green” in Chemical Water Treatment Technologies: Issues, Challenges and Developments. *Desalination and the Environment, Sani Resort, Halkidiki, Greece, April 22–25, 2007.*
- (44) Environmentally-Friendly, Highly-Water Soluble, Carboxymethylinulin-Based Polymers for Hardness Chelation, Scale Inhibition and Dispersion. *Complexing Agents between Science, Industry, Authorities and Users (CASIAU), Monte Verità, Ascona, Switzerland, 11 – 16 March, 2007.*
- (43) The Use of Environmentally Friendly Antiscalants in Water Treatment Technologies: Challenges and Perspectives for Green Chemical Technologies. *2nd Greek Symposium on Green Chemistry and Sustainable Development, 8-10 March 2007, Patras, Greece.*
- (42) Inhibition and control of colloidal silica: can chemical additives untie the "Gordian Knot" of scale formation? *Science & Technology of Industrial Water Treatment, Corrosion/NACE Expo 2007, 62nd Annual Conference & Exposition, Nashville, Tennessee, USA, 11 – 15 March 2007.*
- (41) Current Developments in Chemical Water Treatment: Antiscalant Additives For Mineral Scale Control. *AQUA-2006: Science & Technology of Water, Athens, Greece, November 23 – 26, 2006.*
- (40) Enhancement of Silicate Solubility by Use of “Green” Additives: Linking Green Chemistry and Chemical Water Treatment. *AQUA-2006: Science & Technology of Water, Athens, Greece, November 23 – 26, 2006.*
- (39) Silica and Metal-Silicate Scale Deposits in Process Waters: Mitigation Approaches Based on Chemical Additives. *British Association for Crystal Growth Annual Meeting, Edinburgh, Great Britain, September, 10 – 12, 2006 (Invited Lecture).*
- (38) Molecular Basis of Therapy: Metal-Organophosphate Treatments in the Management of Calcium Deposition-Related Biomineralization Disorders. *British Association for Crystal Growth Annual Meeting, Edinburgh, Great Britain, September, 10-12, 2006.*
- (37) Degradation of Water Treatment Chemical Additives in the Presence of Oxidizing Biocides:

- “Collateral Damages” in Industrial Water Systems. *1st European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP-1), Chania, Crete, September, 7 – 9, 2006.*
- (36) Metal-Phosphonate Chemistry: From Synthetic Curiosities to Real Industrial and Biomedical Applications. *12th International Symposium on Solubility Phenomena and Related Equilibrium Processes, TU Bergakademie, Freiberg, July 24 – 29, 2006.*
- (35) Use of “Green” Cationic Polymers in Inhibition of Silica Formation in Industrial Water Systems. *Annual Graduate Student Chemistry Conference, Fira, Santorini, 7-10 July, 2006.*
- (34) Inorganic-Organic Hybrids Based on Metal Phosphonates. *Annual Graduate Student Chemistry Conference, Fira, Santorini, 7-10 July, 2006.*
- (33) Industrial Water Systems: Problems, Challenges and Solutions. *AQUA2005: Aquaculture of South East European Countries, Athens, Greece, October, 21-23, 2005 (Invited Lecture).*
- (32) Use of Biodegradable Chemical Compounds as Control Additives for Colloidal SiO₂ and Their Possible Application in Industrial Water Systems, *2nd Macedonian Environmental Conference, Thessaloniki, Greece, October 8-12, 2005.*
- (31) The Role of “Green” Additives in Precipitation Control and Potential Applications in Industrial Water Systems. *20th National Greek Chemistry Conference, Ioannina, Greece, September 20 – 24, 2005.*
- (30) Solving Water Treatment’s “Gordian Knots” the “Green Way”. *EUROCORR 2005-The European Corrosion Congress, Lisbon, Portugal, September 4-8, 2005.*
- (29) Silica Scale Growth, Fouling and Deposition: Can Chemists Solve Water Treatment’s “Gordian knot”? *10th European Symposium on Corrosion and Scale Inhibitors, Ferrara, Italy, August 29-September 2, 2005.*
- (28) Inhibition of Calcium Phosphate-DNA Co-precipitates Induced Cell Death by Phosphocitrate Salts. *American College of Rheumatology Annual Scientific Meeting, San Diego, November 12-17, 2005, Arthritis and Rheumatism 50 (9): S334 Suppl. S, September 2004, paper # 797.*
- (27) Use of Environmentally Benign Chemical Additives in Water Treatment Technologies: The Contribution of Green Chemical Technology. *9th International Conference of Environmental Science and Technology, September 1st – 3rd 2005, Rhodes Island, Greece.*
- (26) Metal Organopolyphosphonate Inorganic-Organic Hybrid Materials: Synthetic Approaches, Structural Chemistry and Applications. *8th FIGIPAS Meeting in Inorganic Chemistry, Session on Molecular Materials and Nanochemistry, Athens, Greece, July 6-9, 2005.*
- (25) Inorganic Foulants in Membrane Systems: Chemical Control Strategies and the Contribution of “Green Chemistry”. *Membranes in Drinking and Industrial Water Production, L’ Aquila, Italy, November 15-17, 2004.*
- (24) Crystal Growth and Its Inhibition in Biological and Industrial Systems. *8th Greece-Cyprus Chemistry Conference, Thessaloniki, Greece, December 10 – 13, 2004.*
- (23) Metal-Phosphonate Polymeric Materials: Synthesis, Structural Chemistry and Applications in

- Crystal Growth and Corrosion Inhibition. 8th Greece-Cyprus Chemistry Conference, Thessaloniki, Greece, December 10 – 13, 2004.
- (22) Synergies in the Effects of Polyelectrolytes on Colloidal SiO₂ Growth in Water Systems. 8th Greece-Cyprus Chemistry Conference, Thessaloniki, Greece, December 10 – 13, 2004.
- (21) Biodegradable Additives as Control Agents for Colloidal SiO₂ Growth and Their Possible Utility in Industrial Water Systems. 8th Greece-Cyprus Chemistry Conference, Thessaloniki, Greece, December 10 – 13, 2004.
- (20) Synthesis and Structural Chemistry of Metal-Phosphonate Polymers. Applications in Crystal Growth and Corrosion Inhibition. 2nd Conference of the Greek Crystallographic Association, NCSR Demokritos, Athens, Greece, October 15 – 16, 2004.
- (19) Mitigation Approaches for Silica (SiO₂) Fouling and Deposition in Open Recirculating Cooling Systems: Inhibition and Dissolution. *Fouling and Critical Flux: Theory and Applications*, June 16-18 2004, Lapeenranta, Finland.
- (18) Use of Antiscalants for Mitigation of Silica Fouling and Deposition: Fundamentals and Applications in Desalination Systems. *EUROMED 2004: Desalination Strategies in South Mediterranean Countries*. May 29-June 2, 2004, Marrakech, Morocco.
- (17) Biodegradable Additives in Chemical Cooling Water Treatment: The contribution of “Green Chemistry”. 1st Greek Symposium on Green Chemistry and Sustainable Growth, Athens-EXPO, Athens, Greece, 27-28 February, 2004.
- (16) Uses of Biodegradable Additives in the Inhibition of Amorphous Silica (SiO₂) and Magnesium Silicate and in their Dissolution. 1st Greek Symposium on Green Chemistry and Sustainable Growth, EXPO-Athens, Athens, Greece, 27-28 February, 2004.
- (15) The “Other” Kind of Bioinorganic Chemistry: Potential of Organophosphate Therapeutic Agents to Influence Pathological Biomineralization in Calcium Deposition Diseases. *Inorganic Reaction Mechanisms Meeting (IRMM-2003)*, National and Kapodistrian University of Athens, Athens, Greece, 8-10 January, 2004.
- (14) Combating Heat Exchanger Fouling and Corrosion Phenomena in Process Waters. 4th International Conference on Compact Heat Exchangers and Enhancement Technology for the Process Industries, Fodele Beach Hotel, Crete, Greece, September 29 – October 3, 2003.
- (13) Silica Scale Growth Inhibition in Industrial Waters by Additives of Dendrimeric Structure. 4th Greek Chemical Engineering Conference, Patras, Greece, May 29 – May 31, 2003.
- (12) Hybrid Materials Based on Calcium-Phosphocitrate and Their Application in Anti-Calcification Therapy. 19th National Greek Chemistry Conference, Heraklion, Crete, Greece, November 6 – 10, 2002.
- (11) A 9-Coordinate Calcium Phosphocitrate Complex As Calcification Inhibitor In Vivo. *International Conference of Coordination Chemistry (ICCC 35)*, Heidelberg, Germany, July 21– 26, 2002.
- (10) Multiple Electron and Atom Transfers in Osmium Polypyridyl and Polypyrazolyl Complexes.

216th American Chemical Society National Meeting, Boston, Massachusetts, U.S.A., August 1998, INOR-222.

(9) Nitrogen and Sulfur Atom Transfer Based on Os(VI) and Os(IV) Polypyridyl Complexes: Synthetic, Redox and Structural Chemistry. *214th American Chemical Society National Meeting, Las Vegas, Nevada, U.S.A., September 1997, INOR-370.*

(8) Formation of $\text{Os}^{\text{II}}-\mu\text{-N}_2\text{-Os}^{\text{II,III}}$ Bridging Dinitrogen Dimers via Reduction of Osmium(VI) Nitrides. *213th American Chemical Society National Meeting, San Francisco, California, U.S.A., April 1997, INOR-317.*

(7) Osmium-Nitrogen Multiple Bonds: Synthesis, Structures and Chemistry of Nitrido Complexes of Os(VI). *212th American Chemical Society National Meeting, Orlando, Florida, U.S.A., August 1996, INOR-101.*

(6) Clusters With the $\text{Mo}_2\text{Fe}_6\text{S}_8$ Core Composition As Possible Models For the Iron-Molybdenum Cofactor of Nitrogenase. *210th American Chemical Society National Meeting, Chicago, Illinois, U.S.A., August 1995, INOR-715.*

(5) Tuning the Molybdenum Environment Influences the Catalytic Properties of the Mo/Fe/S Cubane-like Clusters. Implications For the FeMo-co of Nitrogenase. *27th Central Regional American Chemical Society Meeting, Akron, Ohio, U.S.A., May-June 1995, Bioinorganic & Coordination Chemistry # 95.*

(4) Synthesis, Structures and Catalytic Properties of $[\text{MoFe}_3\text{S}_4]^{3+}$ Clusters with Mo-Coordinated Poly-carboxylates and Mercapto-carboxylates. *208th American Chemical Society National Meeting, Washington, D.C., U.S.A., August 1994, INOR-356.*

(3) Modeling the Mo Site of the Iron-Molybdenum-Cofactor of Nitrogenase: $[\text{MoFe}_3\text{S}_4]^{3+}$ Cubane Clusters With Mo-Coordinated Poly-carboxylate Ligands. Effective Catalysts in the Reduction of Hydrazine to Ammonia. *NATO Advanced Study Institute, Rhodes, Greece, June 1994, P-11.*

(2) Double Cubanes Containing MoFe_3S_4 Subunits and Mo-Coordinated Mercapto-carboxylates as Catalysts in the Reduction of Hydrazine to Ammonia. *Great Lakes/Central Joint Regional American Chemical Society Meeting, Ann Arbor, Michigan, U.S.A., June 1994, INOR-202.*

(1) Single and Double MoFe_3S_4 Cubanes With Mo-Bound Poly-Carboxylate Ligands: Structures, Properties and Reactivity. *206th American Chemical Society Meeting, Chicago, Illinois, U.S.A., August 1993, INOR-526.*

SCIENTIFIC CONFERENCE ABSTRACTS (OTHER PRESENTERS, reverse chronological order, most recent first)

(54) The characterization and provenance of ophiolites used as raw materials in the Minoan palatial architecture. The case study of the column base located at the “Yard of the Stone Outfall” in the Palace of Knossos. *41st International Symposium on Archaeometry, Kalamata, Greece, May 15-21, 2016*

- (53) Investigation of the use of wooden architectural elements in the Minoan palace of Knossos, through the documentation of restoration materials and applications throughout time. *41st International Symposium on Archaeometry, Kalamata, Greece, May 15-21, 2016.*
- (52) Silicic Acid Stabilization by Recombinant Silaffin-Like Cationic Polypeptide P5S3 and its “Turn-Off” by Anionic Polyelectrolytes. *13th International Symposium on Biomineralization (Biomin-13), 16-19 September 2015, Granada (Spain).*
- (51) The role of the analytical tools for the laser conservation of selenite ornamental elements from the Minoan palace of Knossos. *Non-destructive and microanalytical techniques in art and cultural heritage, TECHNART 2015 – Catania, April 27 - 30, 2015.*
- (50) Proton conductivity of multifunctional metal phosphonate frameworks. *4th International Conference on Multifunctional, Hybrid and Nanomaterials (Hybrid Materials 2015), Sitges (near Barcelona), Spain, 9 - 13 March 2015.*
- (49) “Green Additives” in Mineral Scale Inhibition. *4th Greek Symposium on Green Chemistry and Sustainable Growth, Ioannina, Greece, October 30-November 1, 2014.*
- (48) Gypsum Scale Inhibition by Chemical Additives: Structure/Function Relationships. *4th International Symposium on Green Chemistry for Environment, Health and Development, Kos Island, Greece, September 24-26, 2014.*
- (47) New evidence about the use of ophiolites in the Minoan architecture. A Raman based provenance study. *OPTO-CH Workshop 2014, Foundation of Research and Technology-Hellas, June 23-July 4, 2014, Heraklion, Crete, Greece.*
- (46) Laser assisted removal of dark cement from the mineral gypsum architectural elements of the Knossos archaeological site. *OPTO-CH Workshop 2014, Foundation of Research and Technology-Hellas, June 23-July 4, 2014, Heraklion, Crete, Greece.*
- (45) Tuning Proton Conductivity in a Multifunctional Calcium Phosphonate Hybrid Framework. *14th European Powder Diffraction Conference (EPDIC), Aarhus, Denmark, June 15-18, 2014.*
- (44) The Importance of Molecular Structure of Inhibitors: Barium Sulfate Scale Formation. *19th International Symposium on Industrial Crystallization (ISIC-19), Toulouse, France, September 16-19, 2014.*
- (43) Laser assisted removal of dark cement crusts from the mineral gypsum (selenite) architectural elements from the peripheral monuments of the archaeological site of Knossos. *LACONA 10 (Lasers in the Conservation of Artworks), 1-13 June 2014, Sharjah, United Arab Emirates.*
- (42) New Evidence About the Use of Ophiolites in the Minoan Architecture. The Investigation of the Excavated Duct in the “High Priest’s House”, a Peripheral Monument of the Palace of Knossos. *The International Symposium on Archaeometry, Los Angeles May 19-23, 2014.*
- (41) The Use of Environmentally-Friendly and “Green” Polyethylene Glycol Additives for Silica Scale Inhibition and Control in Industrial Water Flow Systems. *13th International Conference on Environmental Science and Technology (CEST 2013), Athens, Greece, September 5-7, 2013.*

- (40) Crystal Engineering in Confined Spaces. A Novel Method to Grow Crystalline Metal Phosphonates in Alginate Gel Systems. *3rd International Conference on Multifunctional, Hybrid and Nanomaterials, Sorrento, Italy, March 3-7, 2013.*
- (39) Multifunctional Luminescent and Proton-Conducting Lanthanide Carboxyphosphonate Open-Framework Hybrids Exhibiting Crystalline-to-Amorphous-to-Crystalline Transformations. *3rd International Conference on Multifunctional, Hybrid and Nanomaterials, Sorrento, Italy, March 3-7, 2013.*
- (38) Calcium-Carboxyphosphonate/Polycarboxylate Inorganic-Organic Hybrid Materials from Demineralization of Calcitic Biomineral Surfaces. *3rd International Conference on Multifunctional, Hybrid and Nanomaterials, Sorrento, Italy, March 3-7, 2013.*
- (37) Synthetic, Structural and Applications Mapping of Metal Phosphonate Inorganic-Organic Hybrid Materials. *3rd International Conference on Multifunctional, Hybrid and Nanomaterials, Sorrento, Italy, March 3-7, 2013.*
- (36) Proton Conductors Based on Ultramicroporous Alkaline-Earth Alkylendiamine-tetraphosphonates. *3rd International Conference on Metal Organic Frameworks and Open Framework Compounds – MOF 2012, September 16-19, 2012, Edinburgh, Scotland.*
- (35) Luminescent Proton Conducting Lanthanide Carboxyphosphonate Open-Framework Hybrids, *27th European Crystallographic Meeting, Bergen, Norway, August 6-11, 2012.*
- (34) Multifunctional 3D Lanthanide Carboxyphosphonates: Proton Conductivity and Luminescence Properties, *XXII Simposio del Grupo Especializado de Cristalografía y Crecimiento Cristallino: Centenario de la Difracción de Laue, Seville, June 26 – 29, 2012.*
- (33) Layered Inorganic-Organic Networks of Pyrazole-4-Sulfonate Metal Complexes and Their Use in Copper Anticorrosion Protective Films, *INOR-760, American Chemical Society Spring National Meeting, 25-29 March 2012, San Diego, USA.*
- (32) Metal Tetraphosphonates: from 1D to 3D Ultramicroporous Materials. *5th Meeting of the Spanish Synchrotron Association (AUSE), 6-9 September 2011, Valencia, Spain.*
- (31) Crystal Structures and Ultramicroporosity in Mg and Ca Tetraphosphonate Hybrids. *XXII Congress and General Assembly of the International Union of Crystallography, 22-30 August 2011, Madrid, Spain. Acta Cryst. 2011, A67, C710-C711.*
- (30) Effects of “Green” Inulin Biopolymers on the Crystal Growth of Calcium Oxalate. *16th International Biomedical Science & Technology Symposium, Sept. 28-Oct. 2, 2010, Istanbul, Turkey.*
- (29) Calcium hydroxyphosphonoacetate hybrids: a high-throughput study. *2nd Meeting of the Italian and Spanish Crystallographic Associations (MISCA II). June 30 - July 3, 2010, Oviedo, Spain.*
- (28) Inorganic-Organic Hybrid Compounds Based on Metal Tetraphosphonate Frameworks. *18th International Conference on Phosphorus Chemistry, 11-15 July 2010, Wroclaw, Poland.*
- (27) Synthesis of Aminomethylene Tetraphosphonic Acids and Their Inorganic-Organic Hybrid Compounds. *Materiaux 2010, 18-22 October 2010, Nantes, France.*

- (26) Recent advances in the synthesis of Hyperforin”, *COST CM0804: Chemical Biology with Natural Products, Workshop 2009, Certosa di Pontignano, Italy, December 3–6, 2009*, O21, Abstracts p. 31.
- (25) Biomimetic Formation of Amorphous Silica by Utilization of Natural and Synthetic Polymers and Dendrimers. *10th Greece-Cyprus Conference, 2-4 July 2009, Heraklion, Crete, Greece.*
- (24) Structural Variability and Applications of Metal Phosphonate Frameworks. *10th Greece-Cyprus Conference, 2-4 July 2009, Heraklion, Crete, Greece.*
- (23) Controlled Release of Bis-Phosphonate Pharmaceuticals for the Control of Osteoporotic Pathological Conditions. *10th Greece-Cyprus Conference, 2-4 July 2009, Heraklion, Crete, Greece.*
- (22) Synthesis, Structural Characterization and Properties of Metal Phosphonate Hybrid Materials. *10th Greece-Cyprus Conference, 2-4 July 2009, Heraklion, Crete, Greece.*
- (21) Structural Diversity in Divalent Metal Carboxyphosphonates. *IV Reunion de la Asociacion de Usuarios de Sincrotron de Espana (AUSE), Anfiteatro de Alba / Hotel Eurostars Parc del Vallès, Cerdanyola del Vallès, Barcelona, 15-18 September 2009.*
- (20) Breathing and Gas Uptake in Crystalline Calcium Tetraphosphonates. *1st International Conference on Multifunctional, Hybrid and Nanomaterials, 15-19 March 2009, Tours, France.*
- (19) Structural Analysis of $\text{Ca}(\text{HO}_3\text{PCH}_2)_2\text{N}(\text{H})(\text{CH}_2)_6\text{N}(\text{H})(\text{CH}_2\text{PO}_3\text{H})_2 \cdot 2\text{H}_2\text{O}$ and Ammonia Intercalation. *Meeting of Grupo Especializado de Cristalografía y Crecimiento Cristalino, June 11-14, 2008, Malaga, Spain.*
- (18) Kinetic and Morphological Effects of Carboxymethyl Inulin on the Growth of Calcium Oxalate Crystals. *11th Annual Green Chemistry & Engineering Conference, Washington, DC, USA, June 25-28, 2007.*
- (17) Fe/Mo/S Clusters of Relevance to the Nitrogenase N_2 Reducing Site. The Possible Importance of M-M Bonding. *10th International Conference on Bioinorganic Chemistry (ICBIC 10), Florence, Italy, August 26- August 31, 2001.*
- (16) New Fe/Mo/S Clusters That Suggest the Possible Importance of M-M Bonding in the Structure and Function of Nitrogenase. Paper # 1500 at the Symposium on “Inorganic Organometallic and Biological Chemistry of Metal Sulfides”, *International Chemical Congress of Pacific Basin Societies (PACIFICHEM 2000), Honolulu, Hawaii, U.S.A., December 14 - 19, 2000.*
- (15) The Localized-to-Delocalized Transition in Mixed-Valence Chemistry. Paper # 244 at the Symposium on “New Developments and Directions in Inorganic Charge Transfer Complexes”, *International Chemical Congress of Pacific Basin Societies (PACIFICHEM 2000), Honolulu, Hawaii, U.S.A., December 14 - 19, 2000.*
- (14) Is Metal–Metal Bonding Important in the Function of Nitrogenase? *Gordon Research Conference on Nitrogen Fixation, Colby-Sawyer College, New London, New Hampshire, U.S.A., July 2-7, 2000.*

- (13) How Important is M–M and Mo=S Bonding in the Structure and Function of the Nitrogenase Cofactor? Paper # 22 at the Symposium on “Aspects of Nitrogen Fixation”, *Canadian Society for Chemistry National Meeting and Exhibition, Calgary, Alberta, Canada, May 27 - 31, 2000*.
- (12) New Mo/Fe/S Clusters With Properties Related to those of the Fe/Mo Cofactor of Nitrogenase. Paper # 989 at the “Symposium on Physics and Chemistry of Metal Clusters”, *82th Canadian Society for Chemistry Conference and Exhibition, Toronto, Ontario, Canada, May 30-June 2, 1999*.
- (11) Rational Development of New Cooling Water Chemical Treatment Programs for Scale and Microbial Control. *Symposium on “Advances in Crystal Growth Inhibition Technologies”, 218th American Chemical Society National Meeting, New Orleans, Louisiana, U.S.A., August 1999, COLL-252*.
- (10) Recent Progress in the Synthesis of Structural and Functional Analogs for the Nitrogen-Fixing Fe/Mo/S Site of Nitrogenase. *9th International Conference on Biological Inorganic Chemistry (ICBIC 9), Minneapolis, Minnesota, U.S.A., July 11-16, 1999*.
- (9) Recent Progress in the Design, Synthesis, Structural, Characterization and Catalytic Applications of Synthetic Analogs for the Fe/Mo/S site in Nitrogenase. *5th International Symposium on Applied Bioinorganic Chemistry (5 ISABC), Corfu, Greece, April 13 - 17, 1999*.
- (8) Atom-Transfer Reactions of Os(VI)-Nitridos. *Gordon Research Conference: Inorganic Reaction Mechanisms, Ventura, California, U.S.A., February 28-March 4 1999*.
- (7) The Synthesis, Characterization and Catalytic Function of FeMoS Clusters. Partial Analogs for the Active Site in Nitrogenase. *33rd International Conference on Coordination Chemistry (ICCC), “The Chemistry of Metal Ions in Everyday Life” Florence, Italy, August 30-September 4 1998, p. 51*.
- (6) Multielectron Reduction of Nitrogenase Substrates (N₂H₄, C₂H₂, CN⁻) by Synthetic Fe/Mo/S Clusters With Structural Features Similar to Those of the Active Site of Nitrogenase. *International Chemical Congress of Pacific Basin Societies (PACIFICHEM 95), Honolulu, Hawaii, U.S.A., December 1995*.
- (5) Catalytic Transformations of Nitrogenase Substrates Using the MFe₃S₄ Clusters (M = Mo, V). *10th International Congress on Nitrogen Fixation, Saint Petersburg, Russia, May 28-June 3, 1995*.
- (4) The Use of MFe₃S₄ Clusters (M = Mo, V) and Derivatives in the Reduction of Nitrogenase Substrates. *7th European Conference on Bioinorganic Chemistry (ECBIC 7), Lübeck, Germany, September 1995, Molybdenum # OØ3*.
- (3) Catalytic and Stoichiometric Multielectron Reduction of Hydrazine to Ammonia and Acetylene to Ethylene with Clusters That Contain the MFe₃S₄ Cores (M = Mo, V). Relevance to the Function of Nitrogenase. *8th International Symposium on the Relations Between Homogenous and Heterogenous Catalysis, Balatonfüred, Hungary, 10-14 September, 1995*.

(2) The Catalytic Reduction of Hydrazine to Ammonia by Complexes Containing the $[\text{MFe}_3\text{S}_4]^{3+}$ Core (M = Mo, W). Evidence for Substrate Binding and Reduction at the Heterometal Site. *Great Lakes/Central Joint Regional American Chemical Society Meeting, Ann Arbor, Michigan, U.S.A., June 1994*, INOR-206.

(1) Heteropolynuclear Clusters That Contain Bridged Redox Active Subunits. Their Possible Role in Multielectron Transfer. *205th American Chemical Society National Meeting, Denver, Colorado, U.S.A., March-April 1993*, INOR-280.

SCIENTIFIC CONFERENCES (ATTENDANCE)

- 2nd International Conference on Inorganic Materials, Santa Barbara, California, U.S.A., September 13-16, 2000.
- 61st International Water Conference, Pittsburgh, Pennsylvania, U.S.A., October 22-26 2000.

PEER-REVIEWED PUBLICATIONS (in chronological order)

Ph.D. Doctoral Research

- 1 Single and Double MoFe_3S_4 Cubanes with Mo-Coordinated Poly-Carboxylate Ligands. Syntheses and Structural Characterization of $(\text{Et}_4\text{N})_4\{[(\text{MoFe}_3\text{S}_4\text{Cl}_3)_2(\mu\text{-C}_2\text{O}_4)]\}$ and $(\text{Et}_4\text{N})_3[\text{MoFe}_3\text{S}_4\text{Cl}_4(\text{C}_2\text{O}_4)]$ Clusters.
Coucouvanis, D.; Demadis, K.D.; Kim, C.G.; Dunham, R.W.; Kampf, J.W. *Journal of the American Chemical Society* **1993**, *115*, 3344.
- 2 The Catalytic Reduction of Hydrazine to Ammonia by the MoFe_3S_4 Cubanes and Implications Regarding the Function of Nitrogenase. Evidence for Direct Involvement of the Molybdenum Atom in Substrate Reduction.
Coucouvanis, D.; Mosier, P.E.; Demadis, K.D.; Patton, S.; Malinak, S.M.; Tyson, M.A. *Journal of the American Chemical Society* **1993**, *115*, 12193.
- 3 Syntheses and Structural Characterization of a New Class of Double Cubanes That Contain MoFe_3S_4 Subunits and Molybdenum-Coordinated Bridging Mercapto-Carboxylate Ligands. Effective Catalysts for the Reduction of Hydrazine to Ammonia.
Demadis, K.D.; Coucouvanis, D. *Inorganic Chemistry* **1994**, *33*, 4195.
- 4 The Synthesis and Properties of Fe/Mo/S Clusters With MoFe_3S_4 Cubane Subunits, Mo Bound Bidentate Oxalate Ligands and Terminal or Bridging Cyanide Ligands. Structural Characterization of $(\text{Et}_4\text{N})_3[(\text{C}_2\text{O}_4)(\text{CN})\text{MoFe}_3\text{S}_4\text{Cl}_3]$ and $(\text{Et}_4\text{N})_5\{[(\text{C}_2\text{O}_4)\text{MoFe}_3\text{S}_4\text{Cl}_2]_2(\mu\text{-CN})(\mu\text{-S})\}$.
Demadis, K.D.; Chen, S.J.; Coucouvanis, D. *Polyhedron* **1994**, *13*, 3147.
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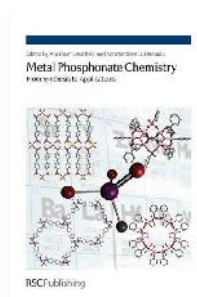
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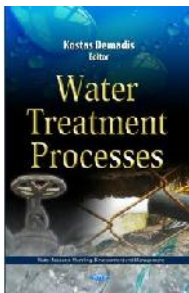
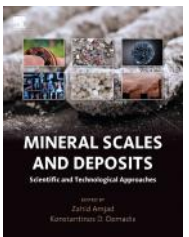
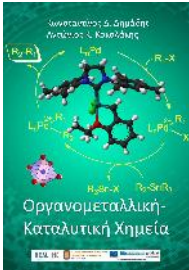
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Demadis, K.D.; Alexandropoulos, I. *Chemical Chronicles* **2004**, 66(10), 37 (in Greek).
- Environmentally friendly chemical additives: applications for SiO₂ dissolution in water systems.
Demadis, K.D.; Mavredaki, E. *Hydroeconomy* **2005**, February-March, p. 32 (in Greek).

SCIENTIFIC CITATIONS

- *h*-index = 36 according to <http://www.isiwebofknowledge.com>.
- 3700 citations according to <http://www.isiwebofknowledge.com> (accessed April 3, 2016).
- At the top 5 % of researchers/authors based on the number of published crystal structure determinations (see <http://www.cryst.chem.uu.nl/csdstat/s100000W>).

NETWORKS PARTICIPATION

- Cretan Water Cluster
- Hellenic Green Chemistry Network (University of Crete representative)
(www.chemistry.upatras.gr/hgcn/demadis_en.pdf)
- Crystallisation Science and Engineering Network (CSEN)
- Crystal Growth & Design Network (ACS)

SCIENTIFIC SOCIETY MEMBERSHIPS

- American Chemical Society (ACS, member since 1990)
Colloid and Surface Chemistry Division (COLL)
Polymer Chemistry Division (POLY)
Inorganic Chemistry Division (INOR)
- National Association of Corrosion Engineers (NACE International)
- Association of Greek Chemists (μ)
- Michigan Alumni Association

AWARDS/HONORS/PUBLICITY

- *Alexander von Humboldt Fellowship* (Germany) **1995**
- *Nominated for the Fajars Award* (Best Thesis, University of Michigan) **1995**
- *Moses Gomberg Research Fellowship* (University of Michigan) **1991**
- Interview with the daily newspaper “Kathimerini” (μ) on the subject of University Professors’ evaluation by students, 8 January 2011, page 15.
- A commentary was written on the paper “The Localized-to-Delocalized Transition in Mixed-Valence Chemistry” (#28) in the on-line magazine “SCIENCE-WEEK” in the 19 Oct 2001 issue (<http://scienceweek.com>)
- The article “Inhibition and Growth Control of Colloidal Silica: Designed Chemical Approaches” by Demadis, K.D. and Neofotistou, E. *Materials Performance* **2004**, 43(4), 38 received a very positive commentary by “Nederlands Corrosie Centrum” in the September 2004 newsletter (<http://www.corrosiecentrum.nl/nieuwsbrief/2004/nieuwsbriefsept2004.pdf>).
- A commentary was published in the magazine Hydroeconomy (September 2004, p. 42) on the Symposium “Water: Past, Present and Future” that took place at *WATERTEC 2004, Athens, Greece, October 29-November 1, 2004*, which included my presentation “Industrial Cooling Water: Problems and Solutions Based on Chemical Approaches”.
- A very positive commentary was published for publication # 43 in the on-line medical journal CIA²O²Med (Contemporary Inflammation, Autoimmunity, Arthritis, Orthopaedics, and Osteoporosis, <http://www.ciaomed.org>). Excerpt: “This exciting work not only identifies CaNaPC as a potential therapy for BCP and CPPD crystal-associated arthritis but supports a role for cartilage calcification in the initiation or perpetuation of osteoarthritis.” -Ann K. Rosenthal, MD”. Also see <http://www.mskreport.com/articles.cfm?articleID=1200>.
- A commentary was published for paper 8 (see Conference Papers) in <http://www.verticalnews.com/article.php?articleID=610609>.
- A commentary was published for paper 56 in <http://www.verticalnews.com/article.php?articleID=462127>.
- A commentary was published for paper 54 in <http://www.newsrx.com/article.php?articleID=1375055>.
- A commentary was published for paper 71 in http://www.verticalnews.com/premium_newsletters/Technology-Business-Journal/2010-03-30/68469TCB.html.
- A commentary was published for paper 76 in <http://www.newsrx.com/health-articles/2496202.html>
- A review (“State of the Art of Friendly “Green” Scale Control Inhibitors: A Review Article”, D. Hasson, H. Shemer, A. Sher, *Industrial and Engineering Chemistry Research* **2011**, 50, 7601–7607) has dedicated 1 ½ pages on our research on green chemical additives.
- A commentary was published for paper 76 in <http://www.highbeam.com/doc/1G1-256998166.html>.

- A commentary was published for paper 81 in http://www.verticalnews.com/premium_newsletters/Chemicals-and-Chemistry/2011-12-30/60382CH.html.
- Two commentaries were published for paper 82 in <http://www.newsrx.com/newsletters/Life-Science-Weekly/2012-01-17/25011720123466LS.html>, and in <http://www.reportlinker-news.com/n029263991/Study-Findings-from-University-of-Crete-Broaden-Understanding-of-Chemical-Engineering.html>.
- A commentary was published for paper 89 in “Nitrogen Compounds—Advances in Research and Application” 2013, Scholarly Editions, Q.A. Acton, Editor (www.scholarlyeditions.com), p.121.
- A commentary was published for paper 87 in “Non-carboxylic acids—Advances in Research and Application” 2013, Scholarly Editions, Q.A. Acton, Editor (www.scholarlyeditions.com), p. 559.
- Listed in Marquis “Who is Who in the World”, 2006 Edition.
- Listed in Marquis “Who is Who in the World”, 2007 Edition.
- Listed in Marquis “Who is Who in Science & Engineering”, 2006-2007 Edition.

CONFERENCE ORGANIZATION

- Chair of the IUPAC-sponsored Conference “Polymers and Organic Chemistry”, *POC-16, Hersonissos, Crete, Greece, 13-16 June 2016*.
- Member of the Conference Steering Committee for the international conference “Corrosion and Scaling Inhibitors. To the Memory of I.L. Rozenfeld”, *Moscow, October 14 – 17, 2014*.
- Member of the Scientific Committee for the 5th *Macedonian Environmental Conference, March 14-16, 2014, Thessaloniki, Greece*.
- Member of the Scientific Committee for the 4th *Macedonian Environmental Conference, March 18-20, 2011, Thessaloniki, Greece*.
- Member of the Organizing Committee for the 3rd *Greek Symposium on Green Chemistry and Sustainable Development, September 25-27, 2009, Thessaloniki, Greece*.
- Member of the Scientific Committee for the Conference *AQUA-2005: Aquaculture of South East European Countries, Athens, Greece, October, 21-23, 2005*.
- Member of the Scientific Committee for the Conference *AQUA-2006: Science & Technology of Water, Athens, Greece, November 23 -26, 2006*.
- Member of the Scientific Committee for the 2nd *Greek Symposium on Green Chemistry and Sustainable Development, March 8-10, 2007, Patras, Greece*.
- Member of the Scientific Committee for the Conference *AQUA-2008: 3rd International Conference Water Science and Technology with Emphasis on Water & Climate, Exhibition Center HELEXPO PALACE, Athens, Greece, October 16-19, 2008*.
- Member of the Scientific Committee for the Conference *Desalination for the Environment: Clean Water and Energy, 17-20 May 2009, Kongresshaus, Baden-Baden, Germany*.

- Member of the Scientific Committee for the 3rd Greek Symposium on Green Chemistry and Sustainable Development, September 18-20, 2009, Thessaloniki, Greece.

OTHER SCIENTIFIC ACTIVITIES

Reviewer for the following international journals (*alphabetically*):

- (1) *ACS-Applied Materials and Interfaces (ACS)*
- (2) *ACS-Sustainable Chemistry & Engineering (ACS)*
- (3) *Advanced Functional Materials (Wiley)*
- (4) *Advanced Powder Technology (Elsevier)*
- (5) *American Chemical Science Journal (Sciencedomain International)*
- (6) *Aminoacids (Springer)*
- (7) *Analytical Methods (RSC)*
- (8) *Angewandte Chemie Int. Ed. (Wiley-VCH Verlag GmbH & Co.)*
- (9) *Applied Surface Science (Elsevier)*
- (10) *Beilstein Journal of Nanotechnology (Beilstein)*
- (11) *Biochimica et Biophysica Acta (BBA - General Subjects) (Elsevier)*
- (12) *Bioinorganic Chemistry & Applications (Hindawi)*
- (13) *Biotechnology Advances (Elsevier)*
- (14) *Catalysis Reviews (Taylor and Francis)*
- (15) *Cellulose (Springer)*
- (16) *Chemical Engineering Communications (Elsevier)*
- (17) *Chemical Engineering Journal (Elsevier)*
- (18) *Chemical Reviews (ACS)*
- (19) *Chemistry Central Journal (open access, <http://journal.chemistrycentral.com>)*
- (20) *Chemistry of Materials (ACS)*
- (21) *Chemosphere (Elsevier)*
- (22) *Colloid and Polymer Science (Springer)*
- (23) *Colloids and Surfaces A: Physicochemical & Engineering Aspects (Elsevier)*
- (24) *Colloids and Surfaces B: Biointerfaces (Elsevier)*
- (25) *Comments on Inorganic Chemistry (Taylor and Francis)*
- (26) *Conference papers for Engineering Conferences International (ECI)*
- (27) *Conference papers for the National Association of Corrosion Engineers (NACE International)*
- (28) *Coordination Chemistry Reviews (Elsevier)*
- (29) *Crystal Engineering Communications, CrystEngComm (RSC)*
- (30) *Crystal Growth & Design (ACS)*
- (31) *Crystals (MDPI - Open Access Publishing)*
- (32) *Current Opinion in Solid State & Materials Science (Elsevier)*
- (33) *Current Organic Chemistry (Bentham Science)*

- (34) *Current Pharmaceutical Design* (Bentham Science)
- (35) *Dalton Transactions* (RSC)
- (36) *Desalination* (Elsevier)
- (37) *Desalination and Water Treatment* (International Science Services)
- (38) *Ecotoxicology and Environmental Safety* (Elsevier)
- (39) *Environmental Science and Pollution Research* (Springer)
- (40) *Environmental Science and Technology* (ACS)
- (41) *Environmental Technology* (Taylor and Francis)
- (42) *European Journal of Inorganic Chemistry* (Wiley)
- (43) *European Polymer Journal* (Elsevier)
- (44) *Express Polymer Letters* (on-line)
- (45) *Heat Transfer Engineering* (Taylor and Francis)
- (46) *Heteroatom Chemistry* (Wiley)
- (47) *Inorganic Chemistry* (ACS)
- (48) *Inorganic Chemistry Communications* (Elsevier)
- (49) *International Journal of Biological Macromolecules* (Elsevier)
- (50) *International Journal of Chemical Engineering* (Hindawi)
- (51) *International Journal of Corrosion and Scale Inhibition*
- (52) *International Journal of Water* (Inderscience Publications)
- (53) *Journal of Applied Polymer Science* (Wiley)
- (54) *Journal of Chemical Science and Technology* (World Academic Publishing Inc.)
- (55) *Journal of Chemical Technology and Biotechnology* (Wiley)
- (56) *Journal of Colloid and Interface Science* (Elsevier)
- (57) *Journal of Crystal Growth* (Elsevier)
- (58) *Journal of Environmental Management* (Elsevier)
- (59) *Journal of Environmental Protection* (Scientific Research Publishing)
- (60) *Journal of Food Engineering* (Elsevier)
- (61) *Journal of Industrial & Engineering Chemistry Research* (ACS)
- (62) *Journal of Inorganic and Organometallic Polymers and Materials* (Springer)
- (63) *Journal of Magnetism and Magnetic Materials* (Elsevier)
- (64) *Journal of Molecular Structure* (Elsevier)
- (65) *Journal of Petroleum and Gas Engineering* (Academic Journals)
- (66) *Journal of Petroleum Science & Engineering* (Elsevier)
- (67) *Journal of Physical Chemistry* (ACS)
- (68) *Journal of Physical Chemistry Letters* (ACS)
- (69) *Journal of Polymer Engineering* (De Gruyter)
- (70) *Journal of Solid State Chemistry* (Elsevier)
- (71) *Journal of Solution Chemistry* (Springer)
- (72) *Journal of the American Chemical Society* (ACS)

- (73) *Langmuir* (ACS)
- (74) *Macromolecules* (ACS)
- (75) *Marine Drugs* (MDPI - Open Access Publishing)
- (76) *Materials* (MDPI - Open Access Publishing)
- (77) *Materials Chemistry and Physics* (Elsevier)
- (78) *Microporous and Mesoporous Materials* (Elsevier)
- (79) *Molecules* (MDPI - Open Access Publishing)
- (80) *Nanomaterials* (MDPI - Open Access Publishing)
- (81) *Nordic Pulp & Paper Research Journal* (SPCI)
- (82) *Phosphorus Sulfur Silicon* (Taylor and Francis)
- (83) *Physica B: Condensed Matter* (Elsevier)
- (84) *Physical Chemistry Chemical Physics* (RSC)
- (85) *Polyhedron* (Elsevier)
- (86) *Polymer Bulletin* (Springer)
- (87) *Polymer International* (Wiley)
- (88) *Progress in Polymer Science* (Elsevier)
- (89) *Pure and Applied Chemistry* (IUPAC)
- (90) *RCS-Advances* (RSC)
- (91) *Reactive and Functional Polymers* (Elsevier)
- (92) *Recent Patents on Chemical Engineering* (Bentham)
- (93) *Recent Patents on Corrosion Science* (Bentham)
- (94) *Research on Chemical Intermediates* (Springer)
- (95) *Reviews in Chemical Engineering* (De Gruyter)
- (96) *Separation and Purification Technology* (Elsevier)
- (97) *Separation Science & Technology* (Taylor and Francis)
- (98) *Surface and Coatings Technology* (Elsevier)
- (99) *Tenside Surfactants & Detergents* (Springer-Verlag)
- (100) *Ultrasonics Sonochemistry* (Elsevier)
- (101) *Water Science & Technology* (International Water Association, IWA)
- (102) *Zeitschrift für Anorganische und Allgemeine Chemie* (Wiley)

- Proposal Evaluator for the Petroleum Research Fund (PRF, USA).
- Member of the Scientific Committee of Cretan Water Cluster.
- Member of the Editorial Board of the on-line journal “*International Journal of Corrosion and Scale Inhibition*” (<http://ijcsi.pro>).
- Member of the Editorial Board of the journal “*Desalination & Water Treatment*” (<http://www.deswater.com>, Taylor & Francis).
- Member (by invitation) of the Graduate Teaching Faculty in the Department of Chemistry, University of Malaga, Spain (2009).

- Proposal Evaluator for the European Research Council (ERC).
- Proposal Evaluator for the Czech Science Foundation (GACR) Czech Republic.
- Proposal Evaluator for the National University Research Council-Executive Agency for Higher Education and Research Funding, Romania.
- Proposal Evaluator for the Belgian Fund for Scientific Research (Fonds de la Recherche Scientifique, FNRS), Belgium.
- Proposal Evaluator for the French National Research Agency (ANR), France.
- Proposal Evaluator for the National Centre of Science and Technology, Kazakhstan (2012 and 2014).
- Proposal Evaluator for the Research Promotion Foundation, Cyprus.
- Proposal Evaluator for the Foundation for Polish Science, Poland.
- Guest Editor for a special issue of *Desalination* dedicated to *Aquaculture of South East European Countries (Desalination 2007, Volume 213, Issues 1-3)*.
- Reviewer for Books published by Elsevier Science BV.
- Reviewer for Books published by Wiley Interscience.

PERSONAL DATA

Family Status: Married (to Foteini since 1994), two sons [Dimitris (b. 1999), Pantelis (b. 2003)].

Nationality: Greek.

Languages: Greek, English, basic French.

Hobbies: Basketball, pottery, gardening, ancient civilizations, studying Umberto Eco, the films of David Lynch, Motörhead music and memorabilia, European architecture in the Middle Ages, NCAA college basketball, North Carolina Tarheels, cooking.