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CURRENT POSITION

Texas A&M University, College Station	College Station, TX
Postdoctoral Research Associate	2016-Present

EDUCATION

University of Patras	Patras, Greece
BSc, <i>magna cum laude</i> , Chemistry	2006-2010
University of Patras	Patras, Greece
MSc, Chemistry	2010-2012
Brock University	St. Catharines, ON
PhD, Inorganic Chemistry	2012-2015

AWARDS AND ASSOCIATIONS

Ontario Trillium Scholarship	2012-2015
Brock University	
Gordon R. Finlay Scholarship	2012
Brock University	
Research Excellence Award	2013
Brock University	
Distinguished Graduate Student Award PhD in Chemistry	2016
Brock University	

RESEARCH EXPERIENCE

University of Patras

Patras, Greece

Undergraduate Researcher; Advisor: Theocharis C. Stamatatos

2008-2010

Dissertation: Manganese Cluster Chemistry with 2-Pyridyl Oxime

Ligands: Syntheses, Structures, and Magnetic Properties

University of Patras

Patras, Greece

Graduate Researcher; Advisor: Theocharis C. Stamatatos

2010-2012

Dissertation: New Mixed-Valent (II/III) Manganese Clusters From the

Use of 2-(hydroxymethyl)pyridine: Synthesis, Structure, Reactivity and

Magnetic Studies

University of Florida

Gainesville, FL

Graduate Research Scholar; Advisor: George Christou

2011-2012

Synthesis and characterization of polynuclear Mn-Ln Single Molecule

Magnets

Brock University

St. Catharines, ON

Graduate Researcher; Advisor: Theocharis C. Stamatatos

2012-2015

Dissertation: Single-Molecule Magnets and Multifunctional Molecular

Magnetic Materials Based on Polynuclear Metal Complexes

Texas A&M University

College Station, TX

Postdoctoral Fellow; Advisor: Kim R. Dunbar

2016-Present

Preparation of new examples of transition metal and lanthanide single molecule and single ion magnets

RESEARCH INTERESTS

synthetic chemistry; inorganic chemistry; single molecule magnets; radical bridged complexes; metal azido clusters; lanthanide and/or transition metal complexes

EXPERIMENTAL TECHNIQUES AND SKILLS

- Synthesis of metal complexes (monomers, clusters, coordination polymers).
- Synthesis of oximato- and Schiff-base organic ligands.
- Solvothermal and Hydrothermal techniques.

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- Glove box and Schlenk line techniques
 - Microwave synthesis of metal complexes.
 - Purification of metal compounds.
 - Crystallization (growth of single crystals) of chemical compounds.
 - Mounting and collecting data on single crystals of compounds using X-ray diffractometers.
 - Characterization of solid-state materials using powder X-ray diffraction techniques.
 - Characterization and study of chemical compounds with thermal techniques (TG/DTG, DTA, DSC), electrochemistry and cyclic voltammetry (CV), spectroscopic methods (IR, far-IR, Raman, UV/VIS, Mössbauer, EPR, HFEPR, NMR, Mass-spec (ES, EI, MALDI), and elemental analysis.
 - Determination of the optical properties of coordination compounds using fluorescent spectrophotometers.
 - Complete Magnetic Characterization of chemical compounds using the SQUID setup and simulation of the experimental data to theoretical models.
 - Qualitative and quantitative analysis of metal ions using instrumental methods.
 - Writing scientific papers.
 - Computer working environments (DOS/WINDOWS).
 - Molecular visualization/modeling/fitting (CS ChemOffice, ChemWin, Exhibit, Alchemy, Res2ins, RASMOL, Review, Struplo, Ortep, Platon99, Ortex7, IsisDraw, WinGX platform, VaList, Mercury, Gretep, Origin, CorelDraw, ChemDraw, SciFinder, Diamond 2.1, Diamond 3.1, SigmaPlot, Magnet, Grid, ACD/2D NMR Processor 10.0, PHI software, MANGELAN software).
 - Usage of Cambridge Structural Database

TEACHING EXPERIENCE

Brock University	St. Catharines, ON
Teaching Assistant, lab demonstrator, Chemical principles and properties	2012-2015

CONFERENCE PRESENTATIONS

D. I. ALEXANDROPOULOS, E. S. KOUMOUSHI, M. J. MANOS, A. J. TASIPOULOS, G. CHRISTOU and Th. C. STAMATATOS, "Pseudohalogen Groups in Higher Oxidation State Manganese Cluster Chemistry", 3rd North America – Greece – Cyprus Workshop on Paramagnetic Materials, Protaras, Cyprus, June 15-19, 2009, p. 60, in the Book of Abstracts. Talk by Th.C.S.

D. I. ALEXANDROPOULOS, C. PAPATRIANTAFYLLOPOULOU, M. J. MANOS, A. J. TASIOPOULOS, O. ROUBEAU, S. J. TEAT, G. AROMI, S. P. PERLEPES, G. CHRISTOU and Th. C. STAMATATOS, “Old Ligands with New Coordination Chemistry: Unusual, High-Nuclearity Manganese Clusters Bearing the Anions of 2-Pyridyl Oximes and Exhibiting Interesting Magnetic Properties”, 3rd Workshop on Current Trends in Nanoscale and Molecular Magnetism, Orlando, USA, June 20-25, 2010. One page in the Book of Abstracts. Talk by D.I.A.

D. I. ALEXANDROPOULOS, M. J. MANOS, A. J. TASIOPOULOS, C. PAPATRIANTAFYLLOPOULOU, W. WERNSDORFER, S. P. PERLEPES, G. CHRISTOU and Th. C. STAMATATOS, “Employment of Pseudohalides in Higher Oxidation State Manganese Cluster Chemistry: From Beautiful Cages to High-Spin Molecules and Single-Molecule Magnets”, EICC-1: First EuCheMS Inorganic Chemistry Conference, Manchester, UK, April 11-14, 2011. One page in the Book of Abstracts. Talk by Th.C.S.

D. I. ALEXANDROPOULOS, C. PAPATRIANTAFYLLOPOULOU, M. J. MANOS, G. AROMI, O. ROUBEAU, S. J. TEAT, S. P. PERLEPES, G. CHRISTOU and Th. C. STAMATATOS, “New Structural Motifs and Interesting Magnetic Properties in Manganese Cluster Chemistry from the Use of 2-Pyridyl Oximate Ligands”, EICC-1: First EuCheMS Inorganic Chemistry Conference, Manchester, UK, April 11-14, 2011. One page in the Book of Abstracts. Poster Presentation.

D. I. ALEXANDROPOULOS, S. MUKHERJEE, C. PAPATRIANTAFYLLOPOULOU, C. P. RAPTOPOULOU, V. PSYCHARIS, V. BEKIARI, S. P. PERLEPES, G. CHRISTOU and Th. C. STAMATATOS, “A new family of Enneanuclear Lanthanide Complexes Exhibiting Intriguing Magnetic and Optical Properties”, XXIII International Conference on Coordination and Bioinorganic Chemistry, Smolenice, Slovakia, June 5-10, 2011. One page in the Book of Abstracts. Talk by D.I.A.

D. I. ALEXANDROPOULOS, S. MUKHERJEE, C. PAPATRIANTAFYLLOPOULOU, C. P. RAPTOPOULOU, V. PSYCHARIS, V. BEKIARI, G. CHRISTOU and Th. C. STAMATATOS, “Towards the Synthesis of “Hybrid” Molecular Materials Displaying Interesting Magnetic and Optical Properties”, 4th North America – Greece – Cyprus Workshop on Paramagnetic Materials, Patras, Greece,

June 14-18, 2011. One page in the Book of Abstracts. Talk by D.I.A.

Th. C. STAMATATOS, **D. I. ALEXANDROPOULOS**, E. S. KOUMOUI, C.

PAPATRIANTAFYLLOPOULOU, W. WERNSDORFER and G. CHRISTOU, “Structural Diversity in Manganese Cluster Chemistry from the Use Pseudohalides: Access to High-Spin Molecules and Single-Molecule Magnets”, 4th North America – Greece – Cyprus Workshop on Paramagnetic Materials, Patras, Greece, June 14-18, 2011, p. 84, in the Book of Abstracts. Talk by Th.C.S.

D. I. ALEXANDROPOULOS, E. S. KOUMOUI and Th. C. STAMATATOS, “Multifunctional Molecular Materials: Synthesis and Characterization of Polynuclear Complexes with Interesting Biocatalytical, Optical and Magnetic Properties”, 21st Panhellenic Conference on Chemistry, University of Thessaloniki, Thessaloniki, Greece, December 9-12, 2011. One page in the Book of Abstracts. Talk by Th.C.S.

D. I. ALEXANDROPOULOS, G. CHRISTOU and Th. C. STAMATATOS, “Towards the Synthesis of Oligo- and Polynuclear Lanthanide Complexes Displaying Interesting Magnetic and Optical Properties”, 45th Inorganic Chemistry Weekend, University of Ottawa, Ottawa, Ontario, Canada, November 2-4, 2012. One page in the Book of Abstracts. Talk by D.I.A.

D. I. ALEXANDROPOULOS, D. P. GIANNOPOULOS, V. BEKIARI, G. CHRISTOU and Th. C. STAMATATOS, “New Clusters and Emissive Single-Molecule Magnets based on Transition Metal Ions and/or Lanthanides”, 5th North America – Greece – Cyprus Workshop on Paramagnetic Materials, Limassol, Cyprus, May 22-26, 2013, p. 77, in the Book of Abstracts. Talk by Th.C.S.

D. I. ALEXANDROPOULOS, L. CUNHA-SILVA, J. TANG and Th. C. STAMATATOS, “New Families of 4f- and 3d/4f-Metal Complexes Exhibiting Single-Molecule Magnetism, Magnetic Refrigeration and Photoluminescence Properties”, 46th Inorganic Chemistry Weekend, York University, Toronto, Ontario, Canada, November 8-10, 2013, p. 30 in the Book of Abstracts. Talk by D.I.A.

D. I. ALEXANDROPOULOS, A. A. ATHANASOPOULOU, E. C. MAZARAKIOTI and Th. C. STAMATATOS, “Toward the Synthesis of ‘Hybrid’ Molecular Magnetic Materials: Emissive and Chiral

Single-Molecule Magnets Based on 3d- and 4f-Metal Clusters”, 14th International Conference on Molecule-based Magnets, Saint Petersburg, Russia, July 5-10, 2014, p. 42, in the Book of Abstracts. Talk by Th.C.S.

Th. C. STAMATATOS, **D. I. ALEXANDROPOULOS**, P. RICHARDSON, L. CUNHA-SILVA, J. TANG, A. FOURNET, A. M. MOWSON and G. CHRISTOU, “Naphthalene-based Diols as Bridging Ligands in Polynuclear Metal Cluster Chemistry: Synthesis, Structures and Magnetic Properties”, 6th North America – Greece – Cyprus Workshop on Paramagnetic Materials, Athens, Greece, June 3-6, 2015, p. 76, in the Book of Abstracts. Talk by Th.C.S.

PEER-REVIED PUBLICATIONS

G. C. VLAHOPOULOU, **D. I. ALEXANDROPOULOS**, C. P. RAPTOPOULOU, S. P. PERLEPES, A. ESCUER, Th. C. STAMATATOS, “A Tetranuclear Complex from the Employment of Pyridine-2,6-Dimethanol in Copper(II) Nitrate Chemistry: Synthetic, Structural and Magnetic Studies”, *Polyhedron*, 28, 3235, 2009.

D. I. ALEXANDROPOULOS, C. PAPATRIANTAFYLLOPOULOU, G. AROMI, O. ROUBEAU, S. J. TEAT, S. P. PERLEPES, G. CHRISTOU, Th. C. STAMATATOS, “The Highest-Nuclearity Manganese/Oximate Complex: An Unusual $\text{Mn}^{\text{II/III}}_{15}$ Cluster with an $S = 6$ Ground State”, *Inorganic Chemistry*, 49, 3962, 2010.

D. I. ALEXANDROPOULOS, S. MUKHERJEE, C. PAPATRIANTAFYLLOPOULOU, C. P. RAPTOPOULOU, V. PSYCHARIS, V. BEKIARI, G. CHRISTOU, Th. C. STAMATATOS, “A new family of nonanuclear lanthanide clusters displaying magnetic and optical properties”, *Inorganic Chemistry*, 50, 11276, 2011.

D. I. ALEXANDROPOULOS, C. PAPATRIANTAFYLLOPOULOU, S. MUKHERJEE, M. J. MANOS, A. J. TASIOPOULOS, S. P. PERLEPES, G. CHRISTOU, Th. C. STAMATATOS, ““Squaring the clusters”: A new $\text{Mn}^{\text{III}}_4\text{Ni}_4$ molecular square from nickel(II)-induced structural transformation of a $\text{Mn}^{\text{II/III/IV}}_{12}$ cage”, *Dalton Transactions*, 41, 4744, 2012.

D. I. ALEXANDROPOULOS, C. PAPATRIANTAFYLLOPOULOU, C. LI, L. CUNHA-SILVA, M. J. MANOS, A. J. TASIOPOULOS, W. WERNSDORFER, G. CHRISTOU, Th. C. STAMATATOS, “Approaches to molecular magnetic materials from the use of cyanate groups in higher oxidation state metal cluster chemistry: Mn_{14} and Mn_{16} ”. European Journal of Inorganic Chemistry, 2013.

D. I. ALEXANDROPOULOS, T. N. NGUYEN, L. CUNHA-SILVA, Th. F. ZAFIROPOULOS, A. ESCUER, G. CHRISTOU, Th. C. STAMATATOS, “Slow magnetization relaxation in unprecedented $Mn^{III}_4Dy^{III}_3$ and $Mn^{III}_4Dy^{III}_5$ clusters from the use of N-salicylidene-o-aminophenol”. Inorganic Chemistry, 52, 1179, 2013.

D. I. ALEXANDROPOULOS, E. C. MAZARAKIOTI, S. J. TEAT, Th. C. STAMATATOS, “Rare nuclearities, new structural motifs, and slow magnetization relaxation phenomena in manganese cluster chemistry: A $Mn_{15}Na_2$ cage from the use of triethanolamine/pivalate/azide blend”. Polyhedron, 64, 91, 2013.

D. I. ALEXANDROPOULOS, C. LI, C. P. RAPTOPOULOU, V. PSYCHARIS, W. WERNSDORFER, G. CHRISTOU, Th. C. STAMATATOS. “Slow magnetization relaxation in a 1-D double-chain coordination polymer composed of $\{Dy^{III}_4\}$ repeating units”. Current Inorganic Chemistry, 3, 161, 2013. Highlighted in Molecular Magnetism Web (<http://www.molmag.de/>) under the title: “Emerging young scientists in molecular magnetism”.

D. I. ALEXANDROPOULOS, A. M. MOWSON, M. PILKINGTON, V. BEKIARI, G. CHRISTOU, Th. C. STAMATATOS. “Emissive molecular nanomagnets: Introducing optical properties in triangular oximate $\{Mn^{III}_3\}$ SMMs from the deliberate replacement of simple carboxylate ligands with their fluorescent analogues”. Dalton Transactions, 43, 1965, 2014. Front Cover.

D. I. ALEXANDROPOULOS, L. CUNHA-SILVA, L. PHAM, V. BEKIARI, G. CHRISTOU, Th. C. STAMATATOS. “Tetranuclear lanthanide (III) complexes with a zigzag topology from the use of pyridine-2,6-dimethanol: Synthetic, structural, spectroscopic, magnetic and photoluminescence studies”. Inorganic Chemistry, 53, 3220, 2014.

D. I. ALEXANDROPOULOS, A. FOURNET, L. CUNHA-SILVA, A. M. MOWSON, V. BEKIARI, G. CHRISTOU, Th. C. STAMATATOS. “Fluorescent naphthalene diols as bridging ligands in Ln^{III} cluster chemistry: Synthetic, structural, magnetic and photophysical characterization of Ln^{III}_8 ‘Christmas-stars’”. *Inorganic Chemistry*, 53, 5420, 2014.

D. I. ALEXANDROPOULOS, L. CUNHA-SILVA, A. ESCUER, Th. C. STAMATATOS. “New classes of ferromagnetic materials with exclusively end-on azido bridges: From SMMs to 2-D molecule-based magnets”. *Chemistry - A European Journal*, 20, 13860, 2014.

M. NAIMI, Th. TSAKIRIDIS, Th. C. STAMATATOS, **D. I. ALEXANDROPOULOS**, E. TSIANI. “Increased skeletal muscle glucose uptake by rosemary extract through AMPK activation”. *Biochemical and Biophysical Research Communications*, 40, 407, 2015.

P. RICHARDSON, **D. I. ALEXANDROPOULOS**, L. CUNHA-SILVA, G. LORUSSO, M. EVANGELISTI, J. TANG, Th. C. STAMATATOS. ““All three-in-one”: ferromagnetism, single-molecule magnetism and magnetocaloric properties in a new family of $[\text{Cu}_4\text{Ln}]$ ($\text{Ln}^{\text{III}} = \text{Gd}, \text{Tb}, \text{Dy}$) clusters”, *Inorganic Chemistry Frontiers*, 2, 945, 2015.

D. I. ALEXANDROPOULOS, E. E. MOUSHI, C. PAPATRIANTAFYLLOPOULOU, C. M. BEAVERS, S. J. TEAT, A. J. TASIOPOULOS, G. CHRISTOU, Th. C. STAMATATOS. “Cyanate groups in higher oxidation state metal cluster chemistry: Mixed-valence (II/III) Mn_{16} and Mn_{18} clusters”. *Polyhedron*, 108, 131, 2016.

D. I. ALEXANDROPOULOS, L. CUNHA-SILVA, G. LORUSSO, M. EVANGELISTI, J. TANG, Th. C. STAMATATOS. “Dodecanuclear 3d/4f-metal cluster compounds with a “Star of David” topology and single-molecule magnetism and magnetocaloric properties”, *Chemical Communications*, 52, 1693, 2016.

D. I. ALEXANDROPOULOS, A. FOURNET, L. CUNHA-SILVA, G. CHRISTOU, Th. C. STAMATATOS. ““Molecular Nanoclusters”: A 2-nm-sized $\{\text{Mn}_{29}\}$ cluster with a spherical structure”, *Inorganic Chemistry*, 55, 12118, 2016.

D. I. ALEXANDROPOULOS, E. C. MAZARAKIOTI, S. A. CORRALES, J. T. BRYANT, L.V. GASPAROV, C. LAMPROPOULOS, Th. C. STAMATATOS. “New ligands for uranium complexation: A stable uranyl dimer bearing 2,6-diacetylpyridine dioxime”, *Inorganic Chemistry Communications*, 78, 13, 2017.

B. S. DOLINAR, S. GÓMEZ-COCA, **D. I. ALEXANDROPOULOS**, K. R. DUNBAR. “An air stable radical-bridged dysprosium single molecule magnet and its neutral counterpart: redox switching of magnetic relaxation dynamics”, *Chemical Communications*, 53, 2283, 2017.

D. I. ALEXANDROPOULOS, K. M. POOLE, L. CUNHA-SILVA, J. AHMAD SHEIKH, W. WERNSDORFER, G. CHRISTOU, Th. C. STAMATATOS. “A family of ‘windmill’-like {Cu₆Ln₁₂} complexes exhibiting single-molecule magnetism behavior and large magnetic entropy changes”, *Chemical Communications*, DOI: 10.1039/c7cc01382e.

REFERENCES

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