

Constantinos J. Milios

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Department of Chemistry
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Date of Birth: March 5th 1975, Athens
Marital Status: married

EDUCATION

- *Ph.D.* (October 2000 – February 2004), Department of Chemistry, University of Patras, Patras, GR (Supervisor: Prof. Spyros P. Perlepes).
Title of Thesis: “*Synthesis, Characterisation and Magnetic Properties of Polynuclear Manganese Clusters With Carboxylate and Oximate Ligands*”.
- *M.Sc. in “Bioinorganic Chemistry”* (October 1998 – October 2000), Department of Chemistry, University of Ioannina, Ioannina, GR (Supervisor: Prof. Spyros P. Perlepes).
Title of Thesis: “*Synthesis, Characterisation and Studies of Dinuclear Ni(II) complexes as Models for the Active Site of Urease*”.
- *B.Sc. in Chemistry* (October 1993 - July 1998), Department of Chemistry, University of Patras, Patras, GR.

RESEARCH EXPERIENCE

- *Post-doctoral Research - “Leverhulme” Fellowship* (March 2005 - June 2007), Supervisor: Dr. Euan K. Brechin. School of Chemistry, University of Edinburgh, Edinburgh, UK.
“*Transition Metal Polynuclear Complexes: Single Molecule Magnets*”
“*Use of Microwave Irradiation in the Synthesis of Metallic Clusters*”
- *Post-doctoral Research - “Marie Curie” Fellowship* (March 2004 - March 2005), Supervisor: Reader Zoe Pikramenou. School of Chemistry, University of Birmingham, Birmingham, UK.
“*Employment of Metallic Cyclodextrin Complexes for the Formation of Supramolecular Electronic Wires*”
“*Metal hosts Metal-Cyclodextrin Complexes on Surfaces*”

- Visiting Scientist - “British Council - GSRT” Fellowship (October 2003 - November 2003), Supervisor: Professor Richard E. Winpenny. Department of Chemistry, University of Manchester, Manchester, UK.
“*Polynuclear Manganese Complexes: Synthesis and Magnetic Properties*”
- Visiting Scientist (October 2002 - April 2003), Supervisor: Professor Leonard R. MacGillivray. Department of Chemistry, University of Iowa, Iowa City, USA.
“*Solid-state Inorganic and Organic Chemistry, Solid-state Photochemistry*”
- M.Sc. research (September 1999 – October 2000), Supervisor: Prof. Spyros P. Perlepes. Department of Chemistry, University of Patras.
“Ni^{II}/RCO₂⁻/N-donor Reaction Systems: Synthesis and Characterisation of Ni(II) Complexes as Models for the Active Site of Urease”
- Research Project in the context of “Introduction to Research” (October 1998 - September 1999), Supervisor: Professor D. Kovala-Demertzis. Department of Chemistry, University of Ioannina.
“Lanthanide Complexes of Dichlofenac”
- Diploma research project (October 1996 - May 1997), Supervisor: Professor N. D. Klouras. Department of Chemistry, University of Patras.
Project Title: “Studies of the Effect of Lithium Pentaselenide (Li₂Se₅) on Metallocene-Dichlorides”

TEACHING EXPERIENCE

- Teaching Assistant
 - Department of Chemistry, University of Patras: *Laboratory of Inorganic Chemistry III* (Lab Supervisor: Professor Spyros P. Perlepes)
Academic semesters: Winter Academic Semesters of 1999-2000, 2000 - 2001, 2001- 2002.
 - Department of Chemistry, University of Patras: *Laboratory of Inorganic Chemistry II* (Lab Supervisor: Professor Spyros P. Perlepes)
Academic semesters: Summer Academic Semesters of 2000 - 2001, 2001- 2002.
- Teaching
 - Department of Chemistry, University of Crete: *General and Inorganic Chemistry*
Academic semesters: Winter Academic Semester of 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-15, 2015-16, 2016-17, 2017-18 (undergrad. course).

- Department of Chemistry, University of Crete: *Metal Ions in Medicine*
Academic semesters: Winter Academic Semester of 2010-2011, Spring Semester 2011-2012, 2012-2013, 2013-2014, 2014-15, 2015-16, 2016-17, 2017-18.
(Undergrad. course).
- Department of Chemistry, University of Crete: *Modern Coordination Chemistry: Synthesis & Applications* (graduate course).
Academic semesters: Spring Semester 2011-2012, 2013-2014. Winter Semester 2012-2013, 2014-15, 2016-17, 2017-18.

ACADEMIC APPOINTMENTS

- October 2008 – October 2009: Temporary Lecturer (407), Department of Chemistry, University of Crete.
- October 2009 – August 2013: Assistant Professor, Department of Chemistry, University of Crete.
- August 2013 – May 2016: Tenure Assistant Professor, Department of Chemistry, University of Crete.
- September 2015: Visiting Professor, Faculty of Chemistry, University of Wroclaw, Poland.
- May 2016 – Present: Associate Professor, Department of Chemistry, University of Crete.

SUPERVISING EXPERIENCE

PhD Thesis (graduated)

1. Angelos Tsanai
2. Andreas Flamoyrakis

PhD Thesis (on-going)

1. Dimitris Kalofolias
2. Niki Stavgiannoudaki
3. Foteini Kakaroni
4. Thomais Tziotzi

MSc Thesis (on-going)

1. Stefania Patsialou
2. Thanasis Mavromagoulos

MSc Thesis (graduated)		
Constantina Mpitsaki		Thrasyvoulos Vatsakis
Maria Orfanoudaki		Foteini Kakaroni
Angelos Tsanai		Thomais Tziotzi
Dimitris Kalofolias		Alexandra Collet
Elena Nikolaïdou		
Eirini Fotopoulou		
Lydia Nodaraki		
Diplomatic Research Projects (graduated)		
Chrysa Kozoni	Eustathia Manolopoulou	George Sopasis
Maria Orfanoudaki	Tereza Peristeraki	Foteini Kakaroni
Eirini Fotopoulou	Anna Orfanoudaki	Maria Pateraki
Maria Panteli	Angelos Tsanai	Thrasyvoulos Vatsakis
Lydia Nodaraki	Thomais Tziotzi	Ifigeneia Mpasanou
Attika Pavlidou	Vasiliki Kotzampasaki	George Markakis
Maria Sofidou	Elena Alexopoulou	Maria Samiou
Alexandra Collet	Stefania Patsialou	Stella Papanikolaou

ADMINISTRATIVE EXPERIENCE

- Head of the Cleaning Tender Committee of the UoC (2011).
- Deputy Chairman of the Students' Housing Committee of the UoC (2012).
 - Member of the following Committees
- "Cleaning Tender" Com. of the UoC (2012).
- "European Researcher's Chart" Com. for the UoC (2011-).
- "Internal Evaluation" Com. of the Chemistry Department (2011-2014).
- "Employment of Undergraduate Chemistry Students" Com. (2011).
- "Students' Advisors" Com. (acad. year 2011-2012).
- "Chemistry Colloquium" Com. (2008 - 2015).
- "Graduate Studies" Com. (2013-).

FELLOWSHIPS

- “Leverhulme Trust”, *University of Edinburgh, UK.*
Postdoctoral Fellowship, 2005 - 2007.
- “EU-FP6 (MRTN-CT-2003-504233), Marie-Curie Research Training Network”, *University of Birmingham, UK.*
Postdoctoral Fellowship, 2004 - 2005.
- “Bioinorganic Chemistry”, University of Ioannina.
Post-graduate scholarship, 1998 – 2000.

EXPERIMENTAL TECHNIQUES AND SKILLS

- *Synthesis* of metal ion complexes (monomers, clusters, coordination polymers)
- Working under N₂ / inert atmosphere.
- *Solid-State Synthesis* of organic compounds (*via* photoreaction).
- *Solvothermal* and *Hydrothermal* techniques.
- *Purification* of chemical compounds.
- *Crystallization* (growth of single crystals) of chemical compounds.
- *Synthesis of terpy-like και S-containing ligands.*
- *Characterization* of chemical compounds with *thermal techniques* (TG/DTG, DTA) and *spectroscopic methods* (IR, far-IR, Raman, UV/VIS, Mössbauer, EPR, CV and NMR).
- *Qualitative and quantitative* analysis of metal ions using instrumental methods.
- Computer working environments DOS/WINDOWS, Linux.
- Molecular visualization/modeling (CS ChemOffice, ChemWin, Exhibit, Alchemy, RASMOL, Re view, Struplo, Ortep32, Platon99, Ortex7, IsisDraw, WinGX platform, VaList, Mercury, Gretep, MestRe-C, Dynamic Surface, Igor, Kaleidagraph, Magpack, Magmofit).
- Usage of Cambridge Structural Database (Cambridge Crystallographic Data Center) (QUEST, VISTA, PLUTO).

RESEARCH INTERESTS

- 1) Synthesis of polynuclear clusters using biologically interesting ligands,

- 2) Biomimetic manganese complexes,
- 3) Synthesis and characterization of hybrid magnetic-photoluminescent molecules,
- 4) Synthesis of Single-Molecule Magnets and Single-Chain Magnets,
- 5) Magneto-optics: electron transfer from manganese centres to suitable organic chromophores and *vice versa*,
- 6) Investigation of magnetic properties of discrete polynuclear and polymeric compounds.

PUBLICATIONS IN PEER REVIEWED JOURNALS (C: Communication; N:

Note; **FP:** Full Paper; **R:** Review; **FT:** Feature Article)

Number of publications: 111

Total citation number: 4353

Hetero-citation number for the above publications: **3899**

h-index: 34

Average citations per item: 39.94

- 111 (C) A. B. Canaj, D. I. Tzimopoulos, D. A. Kalofolias, M. Siczek, T. Lis, M. Murrie and **C. J. Miliros**, "Heterometallic lanthanide-centred $[Ni^{II}_6Ln^{III}]$ rings", *Dalton Transactions*, in press, 2018.
- 110 (C) E. Fotopoulou, J. Martínez-Lillo, M. Siczek, T. Lis, V. Tangoulis, M. Evangelisti, E. K. Brechin and **C. J. Miliros**, "A $[Cr_2Ni]$ coordination polymer: slow relaxation of magnetization in quasi one-dimensional ferromagnetic chains", *Chemical Communications*, 54, 6153, 2018.
- 109 (R) A. B. Canaj, F. E. Kakaroni, A. Collet and **C. J. Miliros**, " α -Amino acids: Natural and artificial building blocks for discrete polymetallic clusters", *Polyhedron*, 151, 1, 2018.
- 108 (C) F. E. Kakaroni, A. Collet, E. Sakellari, D. I. Tzimopoulos, M. Siczek, T. Lis, M. Murrie and C. J. Miliros, "Constructing Cr^{III} -centered heterometallic complexes: $[Ni^{II}_6Cr^{III}]$ and $[Co^{II}_6Cr^{III}]$ wheels", *Dalton Transaction*, 47, 58, 2018.
- 107 (C) A. B. Canaj, M. Siczek, T. Lis, M. Murrie, E. K. Brechin, **C. J. Miliros**, "A $[Ce_{21}]$ Keplerate", *Dalton Transactions*, 46, 7677, 2017.

- 106 (C) A. B. Canaj, D. A. Kalofolias, M. Siczek, T. Lis, R. McNab, G. Lorusso, R. Inglis, M. Evangelisti, **C. J. Milios**, “Tetradecanuclearity in 3d–4f chemistry: relaxation and magnetocaloric effects in $[Ni^{II}_6Ln^{III}_8]$ species”, *Dalton Transactions*, 46, 3449, 2017.
- 105 (FP) A. B. Canaj, M. Siczek, M. Otręba, T. Lis, G. Lorusso, M. Evangelisti, **C. J. Milios**, “Building 1D Lanthanide Chains and non-symmetrical $[Ln_2]$ “Triple-Decker” Clusters Using Salen-type Ligands: Magnetic Cooling and Relaxation Phenomena”, *Dalton Transactions*, 45, 18591, 2016.
- 104 (C) T. G. Tziotzi, M. Siczek, T. Lis, R. Inglis, **C. J. Milios**, “Two unique star-like $[Mn^{IV}Mn^{III}_2Ln^{III}]$ clusters: magnetic relaxation phenomena”, *RSC Advances*, 6, 45326, 2016.
- 103 (FP) A. Flamourakis, D. A. Kalofolias, M. Siczek, T. Lis, E. K. Brechin, **C. J. Milios**, “New members of the $[Mn_6/\text{oxime}]$ family and analogues with converging $[Mn_3]$ planes”, *Journal of Coordination Chemistry*, 69, 826, 2016.
102. (C) N. Stavgiannoudaki, M. Siczek, T. Lis, R. Inglis, **C. J. Milios**, “A triacontanuclear $[Zn_{12}Dy_{18}]$ cluster: a ring of $[Dy_4]$ cubes”, *Chemical Communications*, 52, 343, 2016.
101. (FP) A. B. Canaj, D. I. Tzimopoulos, M. Otręba, T. Lis, R. Inglis, **C. J. Milios**, “Solvothermal synthesis of enneanuclear $[Cu^{II}_7Ln^{III}_2]$ clusters”, *Dalton Transactions*, 44, 19880, 2015.
100. (FP) A. B. Canaj, D. I. Tzimopoulos, M. Siczek, T. Lis, R. Inglis, **C. J. Milios**, “Enneanuclear $[Ni_6Ln_3]$ cages: $[Ln^{III}_3]$ triangles capping $[Ni^{II}_6]$ trigonal prisms including a $[Ni_6Dy_3]$ single-molecule magnet”, *Inorganic Chemistry*, 54, 7089, 2015.
99. (C) T. G. Tziotzi, D. I. Tzimopoulos, T. Lis, R. Inglis, **C. J. Milios**, “Dodecanuclear $[Mn^{III}_6Ln^{III}_6]$ species: Synthesis, structure and characterization of magnetic relaxation phenomena”, *Dalton Transactions*, 44, 11696, 2015.
98. (FP) N. C. Anastasiadis, D. A. Kalofolias, A. Philippidis, S. Tzani, C. P. Raptopoulou, V. Psycharis, **C. J. Milios**, A. Escuer, S. P. Perlepes, “A family of dinuclear lanthanide(III) complexes from the use of a tridentate Schiff base: structural and

physical studies, and the case of a Dy^{III}₂ emissive single-molecule magnet”, *Dalton Transactions*, 44, 10200, 2015.

97. (FP) D. A. Kalofolias, A. G. Flamourakis, M. Siczek, T. Lis, **C. J. Milios**, “A bulky oxime for the synthesis of Mn(III) Clusters”, *Journal of Coordination Chemistry*, 68, 3472, 2015.
96. (FP) T. G. Tziotzi, D. A. Kalofolias, D. I. Tzimopoulos, M. Siczek, T. Lis, R. Inglis, **C. J. Milios**, “A family of [Mn^{III}₆Ln^{III}₂] rod-like clusters”, *Dalton Transactions*, 44, 6082, 2015.
95. (C) N. C. Anastasiadis, I. Mylonas-Margaritis, V. Pscharis, C. P. Raptopoulou, D. A. Kalofolias, **C. J. Milios**, N. Klouras, S. P. Perlepes, “Dinuclear, tetrakis(acetato)-bridged lanthanide(III) complexes from the use of 2-acetylpyridine hydrazone”, *Inorganic Chemistry Communications*, 51, 99, 2015.
94. (R) **C. J. Milios**, R. E. P. Winpenny, “Cluster-based Single-Molecule-Magnets”, *Structure and Bonding*, 164, 1, 2015.
93. (FP) A. B. Canaj, G. K. Tsikalias, A. Philippidis, A. Spyros, **C. J. Milios**, “Heptanuclear lanthanide [Ln₇] clusters: from blue-emitting solution-stable complexes to hybrid clusters”, *Dalton Transactions*, 43, 12486, 2014.
92. (FP) A. B. Canaj, L. E. Nodaraki, K. Slepokura, M. Siczek, D. I. Tzimopoulos, T. Lis, **C. J. Milios**, “A family of polynuclear cobalt complexes upon employment of an indeno-quinoxaline based oxime ligand”, *RSC Advances*, 4, 23068, 2014.
91. (C) S. Lymeropoulou, M. Papastergiou, M. Louloudi, C. P. Raptopoulou, V. Pscharis, **C. J. Milios**, John C. Plakatouras, “Synthesis, Characterization, Magnetic and Catalytic Properties of a Ladder-Shaped Mn^{II} Coordination Polymer”, *European Journal of Inorganic Chemistry*, 3638, 2014.
90. (FP) J. Utko, A. B. Canaj, **C. J. Milios**, M. Sobocinska, T. Lis, “New members in the [Mn₁₀] supertetrahedron family”, *Inorganic Chemistry Communications*, 45, 71, 2014.
89. (FP) J. Utko, A. B. Canaj, **C. J. Milios**, D. Dobrzynska, K. Pawlus, A. Mikołajczyk, T. Lis, “Constructing anhydrous halide bridged manganese(II) clusters: Synthesis, structures and magnetic properties”, *Inorganic Chimica Acta*, 409, 458, 2014.

88. (FP) A. B. Canaj, L. E. Nodaraki, A. Philippidis, D.I. Tzimopoulos, E. Fotopoulou, M. Siczek, T. Lis, **C.J. Milios**, "An indeno-quinoxaline based oxime ligand for the synthesis of polynuclear Ni(II) clusters", *RSC Advances*, 3, 13214, 2013.
87. (FP) M. M. Antonakis, A. Tsirigotaki, K. Kanaki, **C. J. Milios**, S. A. Pergantis, "Improved Bipolar Mass Spectrometric Analysis of Labile Co-ordination Complexes, Redox Active Inorganic Compounds and Intact Proteins Using a Modified Pneumatic Glass Nebulizer for Sonic-Spray Ionization", *Journal of The American Society for Mass Spectrometry*, 24, 1250, 2013.
86. (FP) Th. G. Tziotzi, A. Philippidis, C. P. Raptopoulou, V. Psycharis, **C. J. Milios**, "Employment of a naphthalene-based tetraol ligand in Mn chemistry: mononuclear and linear trinuclear clusters", *Polyhedron*, 64, 52, 2013.
85. (FP) C. G. Efthymiou, E. J. Kyprianidou, **C. J. Milios**, M. J. Manos, A. J. Tasiopoulos, "Flexible Lanthanide MOFs as Highly Selective and Reusable Liquid MeOH Sorbents", *Journal of Materials Chemistry A*, 1, 5061, 2013.
84. (FP) A. B. Canaj, D. I. Tzimopoulos, A. Philippidis, G. E. Kostakis, **C. J. Milios**, "Employment of a new tripodal ligand for the synthesis of Co(II/III), Ni(II) and Cu(II) clusters: magnetic, optical and thermal properties", *Inorganic Chemistry*, 51, 10461, 2012.
83. (FP) G. J. Sopasis, M. Orfanoudaki, P. Zarmpas, A. Philippidis, M. Siczek, T. Lis, J. R. O'Brien, **C. J. Milios**, "2-amino-isobutyric acid in Co(II) and Co(II)/Ln(III) chemistry: homometallic and heterometallic clusters", *Inorganic Chemistry*, 51, 1170, 2012.
82. (C) A. B. Canaj, D. I. Tzimopoulos, A. Philippidis, G. E. Kostakis, **C. J. Milios**, "A strongly blue-emitting heptametallic $[Dy^{III}]_7$ centred-octahedral single molecule magnet", *Inorganic Chemistry*, 51, 7451, 2012.
81. (FP) G. J. Sopasis, A. B. Canaj, A. Philippidis, M. Siczek, T. Lis, J. R. O'Brien, M. M. Antonakis, S. A. Pergantis, **C. J. Milios**, "Heptanuclear heterometallic $[Cu_6Ln]$ clusters: Trapping lanthanides into copper cages with artificial amino acids", *Inorganic Chemistry*, 51, 5911, 2012
80. (FP) I. Kornarakis, G. Sopasis, **C. J. Milios**, G. S. Armatas, "Incorporation of a High-

spin Heptanuclear $[\text{Cu}^{\text{II}}_6\text{Gd}]$ Cluster into Carboxyl-functionalized Mesoporous Silica”, *RSC Advances*, 2, 9809, 2012.

79. (FA) R. Inglis, **C. J. Milios**, L. F. Jones, E. K. Brechin, “Twisted Molecular Magnets”, *Chemical Communications*, 48, 181, 2012.
78. (FP) V. N. Dokorou, **C. J. Milios**, A. C. Tsipis, M. Haukka, P. Weidler, A.K. Powell, G. E. Kostakis, “Pseudopeptidic ligands: Exploring the self – assembly of isophthaloylbisglycine (H_2IBG) and divalent metal ions”, *Dalton*, 41, 12501, 2012.
77. (FP) A. B. Canaj, M. Siczek, A. P. Douvalis, T. Bakas, T. Lis, **C. J. Milios**, “Employment of 2-pyrrole aldoxime in iron cluster chemistry: trinuclear and hexanuclear clusters”, *Polyhedron*, 52, 1411, 2013.
76. (FP) T. Peristeraki, M. Samios, M. Siczek, T. Lis, **C. J. Milios**, “Artificial amino acids in $\text{Ni}(\text{II})$ and $\text{Ni}(\text{II})/\text{Ln}(\text{III})$ chemistry”, *Inorganic Chemistry*, 50, 5175, 2011.
75. (C) A. G. Flamourakis, D. Tzimopoulos, M. Siczek, T. Lis, J. R. O'Brien, P. D. Akrivos, **C. J. Milios**, “A new oxime ligand in manganese chemistry: a $[\text{Mn}_8]$ and a $[\text{Mn}_6]$ cage from the use of 2-dihydroxy-2-phenylacetamidine”, *Dalton Transactions*, 40, 11371, 2011.
74. (C) M. Orfanoudaki, I. Tamiolakis, M. Siczek, T. Lis, G. S. Armatas, S. A. Pergantis, **C. J. Milios**, “Unique trigonal prism encapsulated Ln complexes: A $[\text{Co}^{\text{II}}_6\text{Eu}]$ and a $[\text{Co}^{\text{II}}_6\text{Dy}]$ cage”, *Dalton Transactions*, 40, 4793, 2011.
73. (FP) V. Kotzabasaki, R. Inglis, M. Siczek, T. Lis, E. K. Brechin, **C. J. Milios**, “Hexametallic Manganese Clusters With Bulky Derivatised Salicylaldoximes”, *Dalton Transactions*, 40, 1693, 2011.
72. (C) V. Kotzabasaki, M. Siczek, T. Lis, **C. J. Milios**, “The First Heterometallic Mn-Ca Cluster Containing Exclusively $\text{Mn}(\text{III})$ Centers”, *Inorganic Chemistry Communications*, 14, 213, 2011.
71. (FP) O. Pieper, T. Guidi, S. Carretta, J. van Slageren, F. El Hallak, B. Lake, P. Santini, G. Amoretti, H. Mutka, M. Koza, M. Russina, A. Schnegg, **C. J. Milios**, E. K. Brechin, A. Julia, J. Tejada, “Inelastic neutron scattering and frequency-domain magnetic resonance studies of $S=4$ and $S=12$ Mn6 single-molecule magnets”, *Physical Review B*, 81, 174420, 2010.

70. (FP) C. C. Stoumpos, R. Inglis, O. Roubeau, H. Sartzi, A. A. Kitos, **C. J. Milios**, G. Aromi, A. J. Tasiopoulos, V. Nastopoulos, E. K. Brechin, S. P. Perlepes, "Rare Oxidation-State Combinations and Unusual Structural Motifs in Hexanuclear Mn Complexes Using 2-Pyridyloximate Ligands", *Inorganic Chemistry*, 49, 4388, 2010.
69. (FP) J. M. Bradley, A. J. Thomson, R. Inglis, **C. J. Milios**, E. K. Brechin, S. Piligkos, "MCD spectroscopy of hexanuclear Mn(III) salicylaldoxime single-molecule magnets", *Dalton Transactions*, 39, 9904, 2010.
68. (FP) C. Kozoni, E. Manolopoulou, M. Siczek, T. Lis, E. K. Brechin, **C. J. Milios**, "Polynuclear manganese amino acid complexes", *Dalton Transactions*, 39, 7943, 2010.
67. (FP) R. Inglis, A. D. Katsenis, A. Collins, F. White, **C. J. Milios**, G. S. Papaefstathiou, E. K. Brechin, "Assembling molecular triangles into discrete and infinite architectures", *Crystal Engineering Communications*, 12, 2064, 2010.
66. (FP) F. Moro, V. Corradini, M. Evangelisti, R. Biagi, V. De Renzi, U. del Pennino, J. C. Cezar, R. Inglis, **C. J. Milios**, E. K. Brechin, "Addressing the magnetic properties of sub-monolayers of molecular nanomagnets by X-ray magnetic circular dichroism", *Nanoscale*, 2, 2698, 2010.
65. (FP) S. Hill, S. Datta, J. Liu, R. Inglis, **C. J. Milios**, P. L. Feng, J. Henderson, E. del Barco, E. K. Brechin, D. N. Hendrickson, "Magnetic Quantum Tunneling: Insights from Simple Molecule-Based Magnets", *Dalton Transactions*, 39, 4693, 2010.
64. (FP) R. Inglis, C. C. Stoumpos, A. Prescimone, M. Siczek, T. Lis, W. Wernsdorfer, E. K. Brechin, **C. J. Milios**, "Ferromagnetic manganese "cubes": From PSII to Single-Molecule Magnets", *Dalton Transactions*, 10, 4777, 2010.
63. (FP) E. Manolopoulou, C. C. Stoumpos, M. Siczek, T. Lis, E. K. Brechin, **C. J. Milios**, "Naked' $[Mn_3O]^{7+}$ Triangles: the Effect of Auxiliary Ligands on the Magnetic Exchange", *European Journal of Inorganic Chemistry*, 483, 2010.
62. (C) C. Kozoni, M. Siczek, T. Lis, E. K. Brechin, **C. J. Milios**, "The first amino acid manganese cluster: a $[Mn^{IV}_2Mn^{III}_3]$ DL-valine cage", *Dalton Transactions*, 9117, 2009.
61. (FP) **C. J. Milios**, P. Ioannou, C. P. Raptopoulou, G. S. Papaefstathiou, "Crystal

engineering with 2,1,3-benzoselenadiazole and mercury(II) chloride", *Polyhedron*, 28, 3199, 2009 (Special Issue).

60. (FP) E. Cremades, J. Cano, E. Ruiz, G. Rajaraman, **C. J. Miliros**, E. K. Brechin, "Theoretical Methods Enlighten Magnetic Properties of a Family of Mn₆ Single-Molecule Magnets", *Inorganic Chemistry*, 48, 8012, 2009.
59. (FP) A. Prescimone, **C. J. Miliros**, J. Sanchez-Benitez, K. V. Kamenev, C. Loose, J. Kortus, S. Moggagh, M. Murrie, J. E. Warren, A. R. Lennie, S. Parsons, E. K. Brechin, "High pressure induced spin changes and magneto-structural correlations in hexametallic SMM", *Dalton Transactions*, 4858, 2009.
58. (FP) R. Inglis, L. F. Jones, **C. J. Miliros**, S. Datta, A. Collins, S. Parsons, W. Wernsdorfer, S. Hill, S. P. Perlepes, S. Piligkos, E. K. Brechin, "Attempting to Understand (and Control) the Relationship between Structure and Magnetism in an Extended Family of Mn₆ Single-Molecule Magnets", *Dalton Transactions*, 3403, 2009.
57. (FP) **C. J. Miliros**, R. Inglis, L. F. Jones, A. Prescimone, S. Parsons, W. Wernsdorfer, E. K. Brechin, "Constructing clusters with enhanced magnetic properties by assembling and distorting Mn₃ building blocks", *Dalton Transactions*, 2812, 2009.
56. (FP) C. C. Stoumpos, I. A. Gass, **C. J. Miliros**, N. Lalioti, A. Terzis, G. Aromi, S. J. Teat, E. K. Brechin, S. P. Perlepes, "A Mn^{II}₄ cubane and a novel Mn^{II}₁₀Mn^{III}₄ cluster from the use of di-2-pyridyl ketone in manganese acetate chemistry", *Dalton Transactions*, 307, 2009.
55. (FP) S. Bahr, **C. J. Miliros**, L. F. Jones, E. K. Brechin, V. Mosser, W. Wernsdorfer, "Quantum tunneling of magnetization in the single-molecule magnet Mn₆", *New Journal of Chemistry*, 33, 1231, 2009.
54. (FP) C. C. Stoumpos, N. Lalioti, I. A. Gass, K. Gkotsis, A. A. Kitos, H. Sartzi, **C. J. Miliros**, C. P. Raptopoulou, A. Terzis, E. K. Brechin, S. P. Perlepes, "Linear Mn^{II}₃ and cubane Mn^{II}₄ carboxylate clusters derived from di-2-pyridyl ketone: Synthesis, characterization and magnetic properties", *Polyhedron*, 28, 2017, 2009.
53. (FP) S. Datta, E. Bolin, R. Inglis, **C. J. Miliros**, E. Brechin, S. Hill, "A comparative EPR study of high- and low-spin Mn₆ single-molecule magnets", *Polyhedron*, 28, 1788, 2009.

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2. (FP) G. S. Papaefstathiou, R. Keuleers, **C. J. Milios**, C. P. Raptopoulou, A. Terzis, H. O. Desseyn, S. P. Perlepes, "Hexakis(N, N'-dimethylurea)cobalt(II) cation: A flexible building block for the construction of hydrogen bonded networks", *Zeitschrift für*

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1. (FP) **C. J. Milios**, E. Manessi-Zoupa, S. P. Perlepes, A. Terzis, C. P. Raptopoulou, “Modelling the coordination mode of hydroxamate inhibitors in urease: preparation, X-ray crystal structure and spectroscopic characterization of the dinuclear complex $[\text{Ni}_2(\text{O}_2\text{CMe})(\text{LH}_2)_2(\text{tmen})_2](\text{O}_2\text{CMe}) \cdot 0.9\text{H}_2\text{O} \cdot 0.6\text{EtOH}$ (LH_2 = benzohydroxamic acid; tmen= N, N, N’, N’-tetramethylethylenediamine”, *Transition Metal Chemistry*, 27, 864, 2002.

ORAL PRESENTATIONS – LECTURES

- “Constructing Clusters: Can we find the Principles of Cluster Chemistry?”
Department of Chemistry, University of Wroclaw, Wroclaw, Poland, April 26, 2018.
- “New Trends in Single Molecule Magnets: Reaching High Energy Barriers
Department of Chemistry, University of Wroclaw, Wroclaw, Poland, April 20, 2018.
- “Lanthanides in Molecular Magnetism”
Department of Chemistry, University of Wroclaw, Wroclaw, Poland, September 28, 2015.
- “[Mn₆/oximate] clusters: an ongoing story of pursuing single molecule magnets”
Department of Chemistry, University of Wroclaw, Wroclaw, Poland, September 21, 2015.
- “From Single Molecule Magnets to Hybrid Metallic Clusters and Single Chain Magnets”
Department of Chemistry, University of Wroclaw, Wroclaw, Poland, September 14, 2015.
- “From Bioinorganic Chemistry to Single Molecule Magnets and Hybrid Molecules”
Department of Chemistry, University of Patras, Patras, Greece, April 13, 2013 (invited).
- “Towards Hybrid Metallic Clusters”
School of Chemistry, University of Manchester, Manchester, UK, July 4, 2013 (invited).
- “From Bioinorganic Chemistry to Single Molecule Magnets and Hybrid Clusters”
Department of Chemistry, University of Athens, Athens, December 12, 2012 (invited).
- “Molecular Magnets”
Department of Chemistry, University of Wroclaw, Wroclaw, February, 2012 (invited).
- “Single Molecule Magnets”,
School of Chemistry, University of Edinburgh, Edinburgh, UK, May 2, 2007 (invited).
- “Manganese Single Molecule Magnets : A New Approach”,
School of Chemistry, University of Edinburgh, Edinburgh, UK, May 19, 2006.
- “High Spin Molecules and Single Molecule Magnets”
School of Chemistry, University of Edinburgh, Edinburgh, UK, November 29, 2005.

- “Terpyridine Metallocyclodextrin Cups for the Formation of Supramolecular Wires”,
Institute of Molecular Chemistry, University of Amsterdam, Amsterdam, NL, October 8, 2004 (invited).
- “Oximate Ligands in Carboxylate Coordination Chemistry: A New Prospective Towards the Synthesis of Polynuclear Manganese Cages”,
School of Chemistry, University of Manchester, Manchester, UK, October 31, 2003 (invited).
- “2D and 3D Porous Metal-Organic Frameworks Based on a Ligand Derived from a Templatized-Directed Solid-State Organic Synthesis”,
Department of Chemistry, University of Patras, Patras, May 16, 2003.
- “Synthesis, Characterization and Magnetic Properties of Polynuclear Manganese Complexes with Carboxylate and Oximate Ligands”,
Department of Chemistry, University of Iowa City, Iowa City, USA, February 12, 2003.
- “Employment of Carboxylate and Oximate Ligands for the Synthesis of Polynuclear Manganese Complexes”,
Department of Chemistry, University of Patras, Patras, May 24, 2002.
- “Lanthanide Complexes of Dichlofenac”,
Department of Chemistry, University of Ioannina, Ioannina, September 20, 1999.

CONFERENCES

50. **C. J. MILIOS**,
“3d and 3d-4f clusters: from Single Molecule Magnets to Single Chain Magnets”,
12th Chemistry Conference Greece-Cyprus”, Thessaloniki, Greece, May 8-10, 2015.
Talk
49. **C. J. MILIOS**,
“Towards Single Molecule Magnets and Hybrid Metallic Clusters”,
Israel-Greece Joint Meeting on Nanotechnology and Bionanoscience, Weizmann Institute of Science, Rehovot, Israel, October 19-23, 2014. Talk (invited).
48. **C. J. MILIOS**,
“From Single-Molecule Magnets to Single-Chain Magnets”,
International Symposium on Advanced Nanoporous and Nanostructured Materials, Herakleion, September 3-4, 2014. Talk (invited).

47. **C. J. MILIOS**,
“Hybrid Metallic Clusters”,
5th North America-Greece-Cyprus Workshop on Paramagnetic Materials (NAGC 2013), Limassol, Cyprus, May 22-26, **2013**. Talk.
46. **C. J. MILIOS**,
“Towards Multifunctional Metallic Clusters”,
IFNA 2012 World Congress, Athens, Greece, June 25 – July 1, **2012**. Talk
45. **C. J. MILIOS**, A. B. CANAJ, G. E KOSTAKIS and D. TZIMOPOULOS,
“Multifunctional Metallic Clusters”,
4th Workshop on Current Trends in Molecular and Nanoscopic Magnetism, Ouranoupolis, Chalkidiki, Greece, June 11-14, **2012**. Talk.
44. **C. J. MILIOS**,
“Naturally Occurring and Artificial Amino Acids in 3d and 3d-4f chemistry”,
4th North America-Greece-Cyprus Workshop on Paramagnetic Materials (NAGC 2011), Patras, Greece, June 14-18, **2011**, Talk.
43. A. FLAMOURAKIS, D. TZIMOPOULOS, P. AKRIVOS and **C. J. MILIOS**,
“Polynuclear Oxime Manganese Clusters”,
21st Panhellenic Chemistry Conference, Thessaloniki, Greece, December 9-12, **2011**, Poster Presentation, Section 8 in the Book of Abstracts.
42. A. TSANAI, T. PERISTERAKI, G. KOSTAKIS and **C. J. MILIOS**,
“Constructing heterometallic Ni^{II}-Ln^{III} amino acid based cluster ”,
21st Panhellenic Chemistry Conference, Thessaloniki, Greece, December 9-12, **2011**, Poster Presentation, Section 8 in the Book of Abstracts
41. **C. J. MILIOS**,
“Constructing 3d and 3d-4f amino acid based metallic clusters”,
21st Panhellenic Chemistry Conference, Thessaloniki, Greece, December 9-12, **2011**, Talk.
40. **C. J. MILIOS**, A. FLAMOURAKIS, M. SICZEK and T. LIS,
“Synthetic Models of the OEC: The First Amino Acid Bound Manganese-Calcium Cluster”
1st International Conference on Bioinspired Materials for Solar Energy Utilization,

Plataniás-Chania, Greece, September 13-17, **2011**, Poster Presentation.

39. A. FLAMOURAKIS, D. TZIMOPOULOS, P. AKRIVOS and **C. J. MILIOS**,
“Polynuclear Manganese Clusters: A “pacman” cage”,
XVII Chemistry Graduate Conference, Herakleion, Greece, July 15-18, **2011**, Poster
Presentation, p.33 in the Book of Abstracts.
38. G. SOPASIS and **C. J. MILIOS**,
“Unique homonuclear and heteronuclear clusters: aminoacid-based metallic cages”,
XVII Chemistry Graduate Conference, Herakleion, Greece, July 15-18, **2011**, Poster
Presentation, p.28 in the Book of Abstracts.
37. **C. J. MILIOS**,
“On the Boundary of Inorganic Chemistry, Bioinorganic Chemistry and Molecular
Magnetism”,
XVII Chemistry Graduate Conference, Herakleion, Greece, July 15-18, **2011**, Talk,
p.38 in the Book of Abstracts.
36. V. KOTZABASAKI, C. KOZONI, M. SICZEK, T. LIS, E. K. BRECHIN, W.
WERNSDORFER and **C. J. MILIOS**,
“Amino acid Manganese Clusters, $[\text{Mn}_4]$ Cubes and Heterometallic Mn-Ca
Complexes”,
IV International Conference on Molecular Materials, MOLMAT, Montpellier, France,
July 5-8, **2010**, Poster Presentation, p.172 in the Book of Abstracts.
35. **C. J. MILIOS**,
“Oxygen Evolving Centre in PSII: A Pallet of Synthetic Chemistry”,
10th European Biological Inorganic Chemistry Conference. Thessaloniki, Greece, June
22-26, **2010**, Talk, p. 28 in the Book of Abstracts.
34. **C. J. MILIOS**,
““Twist and Improve”: Single Molecule Magnets”,
10th Greece-Cyprus Chemistry Conference, Herakleion, Greece, July 2-4, **2009**, Talk,
p.19 in the Book of Abstracts, Vol.1.
33. C. KOZONI, M. SICZEK, T. LIS and **C. J. MILIOS**,
“The first amino acid manganese cluster: A $[\text{Mn}^{\text{IV}}_2\text{Mn}^{\text{III}}_3]$ DL-valine cage”,
10th Greece-Cyprus Chemistry Conference, Herakleion, Greece, July 2-4, **2009**, Poster

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32. E. MANOLOPOULOU, M. SICZEK, T. LIS, W. WERNSDORFER and **C. J. MILIOS**
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