

SHORT CURRICULUM VITAE of SPYROS P. PERLEPES

**Professor of Inorganic Chemistry,
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A. General Information

Spyros P. Perlepes (BSc in Chemistry, University of Patras, Greece, 1976) was born in Athens (1953). He received his PhD in Inorganic Chemistry (University of Patras, 1979) working under the supervision of the late Prof. Andreas G. Galinos in the chemistry of metal halogeno acids. Following postdoctoral research in the group of Dr. David Nicholls (University of Liverpool, UK, 1979-1981, reactions in liquid ammonia and metal-hydrazine/hydrazone chemistry) and obligatory service in the Greek Army (1981-1983), he was appointed to a Lectureship in Inorganic Chemistry in the Chemistry Department, University of Ioannina, Greece, in 1983. He was promoted to Assistant Professor in 1987. He moved to the University of Patras in 1992, and became Associate Professor in 1996 and Professor in early 2001. He is married with 2 daughters. His hobbies are movies, music from the 50s and 60s, and football (he is fanatical supporter of Panathinaikos FC).

Perlepes has taught General and Inorganic Chemistry courses for 35 years. He is co-author of 3 books for undergraduate students (in Greek), including the 5-volume series "General and Inorganic Chemistry" for the Greek Open University. He also delivers lectures in the PhD programme of the Chemistry Department of the University of Patras, and in three departmental and interdepartmental MSc programs. He has been Visiting Scientist and Visiting Professor (for a total of ~5 years) in the Universities of Antwerp (Belgium), Barcelona (Spain), Indiana and Florida (USA), in the Karlsruhe Institute of Technology (Germany), and in the Research Center "Paul Pascal" of the CNRS of Bordeaux (France). He has research interests in: molecular magnetism; the synthesis of homo- and heterometallic spin clusters; the development of single-molecule magnets (SMMs); the reactivity of coordinated ligands; and in aspects of uranium and thorium chemistry related to energy problems. He has been Coordinator in 8 funded proposals (total budget: ~1.250.000 €) since 1991. His managerial experience in science is more than satisfactory.

Perlepes has an international reputation in the fields of *coordination chemistry* and *molecular magnetism*, please see "Significant Research Achievements in the Last 18 Years". He is co-author in 375 articles (including the "in-press" papers) in peer-reviewed journals, 8 of which are reviews/accounts/perspectives, and one is chapter in a Willey book. He is also co-author in 3 Editorials. His h index is currently 54, the highest among inorganic chemists in Greece. His work has received > 8500 citations (without self-citations), more than 4000 of which are without author overlap.

Perlepes' collaborations are multidisciplinary involving both physics and materials. His international collaborations include European based groups [*W. Wernsdorfer*, KIT, Karlsruhe, micro-SQUID measurements; *A. Escuer*, Barcelona, SQUID measurements; *E. Brechin*, Edinburgh, SQUID measurements; *A. Powell*, Karlsruhe, SQUID measurements; *R. Winpenny* and *E. McInnes*, Manchester, EPR; *A. Tasiopoulos*, Cyprus, crystallography; *L. Cunha-Silva*, Porto, crystallography; *O. Roubeau*, Zaragoza, crystallography; *R. Clerac* and *C. Mathoniere*, Bordeaux, magnetometry] and USA based groups [*G. Christou*, Gainesville, Florida, SQUID measurements; *S. Hill*, Tallahassee-Florida, HFEP; *S.J. Teat*, Berkeley, synchrotron X-ray diffraction; *M. Turnbull*, Worcester, MA, magnetochemistry]. His national collaborations include groups at the Aristotle University of Thessaloniki [*E.G. Bakalbassis*, DFT calculations], at the Universities of Ioannina [*A. Tsepis*, theory and *J.C. Plakatouras*, coordination polymers topics] and Athens [*G.S. Papaefstathiou*, metallosupramolecular chemistry topics], at the Technological Educational Institute of Western Greece [*V. Bekiari*, photoluminescence studies], and at the NCSR "Demokritos" in Athens [*A. Terzis*, *C.P. Raptopoulou*, *V. Psycharis*, crystallography; *Y. Sanakis*, EPR]. In these collaborations, he leads various aspects of the research projects, reflected in senior authorship of joint papers.

Perlepes has supervised 35 PhD and 33 MSc Theses (1988-2018). Some of his former PhD students occupy academic positions [*J.C. Plakatouras*, Professor, University of Ioannina; *C.J. Milios*, Associate Professor, University of Crete; *G.S. Papaefstathiou*, Associate Professor, University of Athens, *V. Tangoulis*, Associate Professor, University of Patras; *Th.C. Stamatatos*, Associate Professor, University of Patras; *C. Papatriantafyllopoulou*, Lecturer in the National University of Ireland, Galway, Ireland; *C.*

Stoumpos, Associate Professor, University of Crete; E. Diamantopoulou, L. Drakopoulou and S. Dionyssopoulou, Laboratory supervisors, Chemistry Department, University of Patras]. Dr. C. Efthymiou holds a senior research position in the Chemistry Department of the NUI at Galway (Ireland). His group currently involves 3 PhD students, 6 MSc students and 6 undergraduate students.

Perlepes has delivered ~80 talks (>50 invited) in national and international Conferences/Workshops, Universities and Research Institutes. More than 15 talks in Conferences were keynote lectures and 7 plenary lectures (5 in international Conferences).

Perlepes is referee in ~50 peer-reviewed journals including *J. Am. Chem. Soc.*, *Angew. Chem.*, *Chem.-Eur. J.*, *Chem. Commun.*, *CrystEngCom*, *Crystal Growth Des.*, *Inorg. Chem.*, *Dalton Trans.*, *Eur. J. Inorg. Chem.*, *Polyhedron*, *Inorg. Chim. Acta*,... He is referee in Funding Organizations (NSF, EPSRC, NSERC, Greek General Secretariat of Research and Technology, Greek Ministry of Education, Research and Religious Affairs, Research Committees of the Greek Universities). He was member of the 5-membered jury committee for the first “European Award on Molecular Magnetism Doctoral Thesis (2005-2008)”. In recognition of his scientific excellence he has been appointed member (2011-2014) of the Hellenic scientific group on Natural Sciences by the Greek Minister of Education and Research; this group is a division of the National Committee for Research and Technology. He was member of the organizing or scientific committees of several national and international Conferences, Meetings and Workshops. His group participates in the COST CA15128 Action «Molecular Spintronics» (2016-2018).

B. List of Most Significant Publications

Papers

1. A. Panagiotopoulos, T. F. Zafiropoulos, S. P. Perlepes, E. Bakalbassis, I. Masson-Ramade, O. Kahn, A. Terzis, C. P. Raptopoulou, “Molecular Structure and Magnetic Properties of Acetato-Bridged Lanthanide(III) Dimers”, *Inorg. Chem.* **34**, 4918-4920 (1995). 192 citations.
2. V. Tangoulis, C.P. Raptopoulou, S. Paschalidou, E. G. Bakalbassis, S. P. Perlepes, A. Terzis, “The [Cu₂(O₂CMe)₄(H₂O)₂]/(py)₂CO System as the Source of an Unusual Heptanuclear Complex and a Novel Dodecanuclear ‘Flywheel’ Cluster”, *Angew. Chem. Int. Ed.* **36**, 1083-1085 (1997). 68 citations.
3. G.S. Papaefstathiou, A. Escuer, R. Vicente, M. Font-Bardia, X. Solans, S.P.Perlepes, “Reactivity in Polynuclear Transition Metal Chemistry as a Means to Obtain High-Spin Molecules: Substitution of μ_4 -OH⁻ by n¹, μ_4 -N₃⁻ Increases Nine Times the Ground-state S value of a Nonanuclear Nickel(II) Cage”, *Chem. Commun.*, 2414-2415 (2001). 139 citations.
4. A.K. Boudalis, B. Donnadieu, V. Nastopoulos, J.M. Clemente-Juan, A. Mari, Y. Sanakis, J.-P. Tuchaques, S.P.Perlepes, “A Nonanuclear Iron(II) Single-Molecule Magnet”, *Angew. Chem., Int. Ed.* **43**, 2266-2270 (2004). 184 citations.
5. C.J. Milios, A. Vinslava, W. Wernsdorfer, S. Moggach, S. Parsons, S.P. Perlepes, G. Christou, E.K. Brechin, “A Record Anisotropy Barrier for a Single-Molecule Magnet”, *J. Am. Chem. Soc.* **129**, 2754-2755 (2007). 504 citations.
6. Th.C. Stamatas, D. Foguet-Albiol, S.-C. Lee, C.C. Stoumpos, C.P. Raptopoulou, A. Terzis, W. Wernsdorfer, S.O.Hill, S.P. Perlepes, G. Christou, “‘Switching On’ the Properties of Single-Molecule Magnetism in Triangular Manganese(III) Complexes”, *J. Am. Chem. Soc.* **129**, 9484-9499 (2007). 174 citations.
7. C.J. Milios, R. Inglis, A. Vinslava, R. Bagai, W. Wernsdorfer, S. Parsons, S.P.Perlepes, G. Christou, E.K. Brechin, “Towards a Magnetostructural Correlation for a Family of Mn₆ SMMs”, *J. Am. Chem. Soc.* **129**, 12505-12511 (2007). 275 citations.
8. 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”, *Dalton Trans.* **44**, 10200-10209 (2015). 19 citations.
9. A.A. Kitos, C.G. Efthymiou, M.J. Manos, A.J. Tasiopoulos, V. Nastopoulos, A. Escuer, S.P. Perlepes, “Interesting Copper(II)-assisted Transformations of 2-acetylpyridine and 2-benzoylpyridine”, *Dalton Trans.* **45**, 1063-1077 (2016). 7 citations.
10. Z.G. Lada, A. Soto Beobide, A. Savvidou, C.P. Raptopoulou, V. Psycharis, G.A. Voyiatzis, M.M. Turnbull, S.P. Perlepes, “A Unique Copper(II)-assisted Transformation of Acetylacetonate Dioxime in Acetone that Leads to One-dimensional, Quinoxaline-bridged Coordination Polymers”, *Dalton Trans.* **46**,

260-274 (2017). 4 citations.

11. Z.G. Lada, Y. Sanakis, C.P. Raptopoulou, V. Psycharis, S.P. Perlepes, G. Mitrikas, “Probing the Electronic Structure of a Copper(II) Complex by CW- and Pulse-EPR Spectroscopy”, *Dalton Trans.* **46**, 8458-8475 (2017). 2 citations.
12. D. Maniaki, I. Mylonas-Margaritis, J. Mayans, A. Savvidou, C.P. Raptopoulou, V. Bekiari, V. Psycharis, A. Escuer, S.P. Perlepes, “Slow Magnetic Relaxation and Luminescence Properties in Lanthanide(III)/Anil Complexes”, *Dalton Trans.* **47**, 11859-11872 (2018). 2 citations.

Reviews/Accounts/Perspectives upon invitation, also indicating the number of citations (excluding self-citations)

1. G.S. Papaefstathiou, S.P. Perlepes, “Families of Polynuclear Manganese, Cobalt, Nickel and Copper Complexes Stabilized by Various Forms of Di-2-pyridyl Ketone”, *Comments Inorg. Chem.* **23**, 249-274 (2002). 154 citations.
2. C.J. Milios, Th.C. Stamatatos, S.P. Perlepes, “The Coordination Chemistry of Pyridyl Oximes”, *Polyhedron* **25**, 134-194 (2006) [Polyhedron Report]. 246 citations.
3. A.J. Tasiopoulos, S.P. Perlepes, “Diol-type Ligands as Central ‘Players’ in the Chemistry of High-Spin Molecules and Single-Molecule Magnets”, *Dalton Trans.*, 5537-5555 (2008) [Dalton Perspective]. 139 citations.
4. C. Papatriantafyllopoulou, E. Manessi-Zoupa, A. Escuer, S.P. Perlepes, “The Sulfate Ligand as a Promising ‘Player’ in 3d-metal Cluster Chemistry”, *Inorg. Chim. Acta.* **362**, 634-650 (2009). 32 citations
5. Th.C. Stamatatos, C.G. Efthymiou, C.C. Stoumpos, S.P. Perlepes, “Adventures in the Coordination Chemistry of Di-2-pyridyl Ketone and Related Ligands: From High-Spin Molecules and Single-Molecule Magnets to Coordination Polymers, and from Structural Aesthetics to an Exciting New Reactivity Chemistry of Coordinated Ligands”, *Eur. J. Inorg. Chem.*, 3361-3391 (2009) [Microreview] (Outside Cover of the Issue). 78 citations.
6. G.E. Kostakis, S.P. Perlepes, V.A. Blatov, D.M. Proserpio, A.K. Powell, “High-nuclearity Cobalt Coordination Clusters: Synthetic, Topological and Magnetic Aspects”, *Coord. Chem. Rev.* **256**, 1246-1278 (2012). 121 citations.
7. Escuer, J. Esteban, S.P. Perlepes, Th.C. Stamatatos, “The Bridging Azido Ligand as Central ‘Player’ in High-Nuclearity 3d-metal Cluster Chemistry”, *Coord. Chem. Rev.* **275**, 87-129 (2014). 59 citations.
8. D. Maniaki, E. Pilichos, S.P. Perlepes, “Coordination Clusters of 3d-Metals that Behave as Single-Molecule Magnets (SMMs): Synthetic Routes and Strategies”, *Frontiers in Chemistry* **6**, article 461, 1-28 (2018). 2 citations.

Chapter in a Wiley Book concerning Single-Molecule Magnets

1. Z.G. Lada, E. Katsoulakou, S.P. Perlepes, “Synthesis and Chemistry of SMMs”, in *Single-Molecule Magnets: Molecular Architectures and Building Blocks for Spintronics*, edited by M. Holynska, Wiley-VCH, 2019, pp. 245-313. Print ISBN: 978-3-527-34321-8. 1 citation.

C. Significant Research Achievements of the Group of Spyros P. Perlepes in the Last 18 years

The Perlepes group have published ~225 papers in peer-reviewed journals since 2001, including invited reviews/accounts/perspectives. This is a remarkable achievement for the Greek standards and a very good number according to international standards. At the time of updating this CV version, 2 papers are in press and 2 more have been submitted.

Spyros P. Perlepes has an international reputation in the fields of *Molecular Magnetism* and *Coordination Chemistry*. He has ~10 currently active collaborations in Greece, Europe (UK, Spain, Germany, Portugal, France) and USA (Florida, Berkeley). Projects underway in the Perlepes laboratory are based around single-molecule magnets (SMMs), molecule-based magnets, fluorescent molecular materials, self growing nanostructures, as well as ligand design, reactivity of coordinated organic ligands and bioinorganic chemistry.

Perlepes reputation in the interdisciplinary field of *Molecular Magnetism* is for his research into the **synthesis** of *high-spin molecules* and *single-molecule magnets*. His significant research achievements in

this field in the last 18 years are:

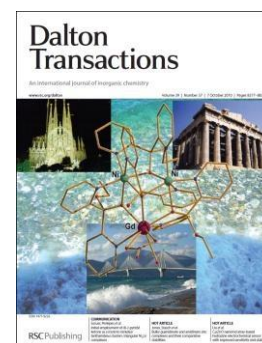
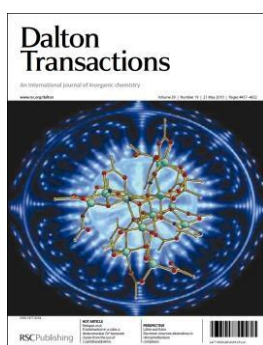
1. His group have developed a general method of increasing the ground-state total spin values of polynuclear 3d-metal complexes (coordination clusters). See, for example: *Angew. Chem Int. Ed.* 40, 884-886 (2001); *Chem. Commun.*, 2414-2415 (2001); *Polyhedron* 26, 2089-2094 (2007). The approach is based on the replacement of hydroxo or alkoxo bridges, that most often propagate antiferromagnetic exchange interactions, by the end-on azido or isocyanato ligands which are ferromagnetic couplers.
2. The Perlepes group are world leaders in the synthesis of Fe^{II} SMMs. See, for example: *Angew. Chem. Int. Ed.* 43, 2266-2270 (2004); *Chem. Eur. J.* 14, 2514-2526 (2008). Fe^{II}-based SMMs are extremely rare in the literature. Paramagnetic ¹H NMR spectrometry in CD₃CN verified that Fe^{II}₉ SMMs are stable in solution.
3. His group have developed a new approach for the conversion of non-SMMs into SMMs without changing the identity of core bridging atoms or electron count, but instead by introducing a ligand-induced structural perturbation of the magnetic core. Thus, the distortion imposed on a {Mn₃(μ₃-O)}⁷⁺ member of the venerable class of the triangular, oxide-centered {M₃O}^{6+, 7+} complexes by tridentate oximate ligands switches the exchange coupling to ferromagnetic and has led to examples of triangular SMMs. See, for example: *J. Am. Chem. Soc.* 127, 15380-15381 (2005); *J. Am. Chem. Soc.* 129, 9484-9499 (2007).
4. In collaboration with Brechin's group (University of Edinburgh, UK), he was the first scientist to make an SMM that operates above liquid He temperature (Mn^{III}₆, T_B = 5.0 K, U_{eff} = 86 K) breaking the 15 year old world record held by the "famous" Mn₁₂-OAc molecule. See: *J. Am. Chem. Soc.* 129, 2754-2755 (2007). The synthesis was achieved by a deliberate structural distortion of a known Mn₆ SMM.
5. In collaboration with Brechin's group (University of Edinburgh, UK), his group were the first to obtain synthetic control over SMMs and the first to established a magneto-structural correlations for SMMs. See, for example: *J. Am. Chem. Soc.* 129, 8-9 (2007); *J. Am. Chem. Soc.* 129, 6547-6561 (2007); *J. Am. Chem. Soc.* 129, 12505-12511 (2007); *Chem. Commun.*, 3476-3478 (2007); *Dalton Trans.*, 6205-6210 (2008).
6. His group have synthesized the first Ni^{II}/Ln^{II} SMMs (Ln = lanthanide) for which magnetization hysteresis loops have been recorded. See: *Inorg. Chem.* 49, 9737-9739 (2010).
7. His group have synthesized Ln(III) and Zn(II)/Ln(III) emissive SMMs. See, for example: *Dalton Trans.* 44, 19791-19795 (2015); *Dalton Trans.* 44, 10200-10209 (2015).
8. His group have synthesized and characterized Single-Ion Magnets based on Dy(III). See, for example: *Dalton Trans.* 471, 11859-11872 (2018).

The significant research achievements of Spyros P. Perlepes in *Coordination Chemistry* in the last 18 years are:

1. His group have discovered novel ways with which coordination to a metal ion modifies and control the reactivity of organic molecules bearing a ketone group. For reviews (all upon invitation), see: *Comments Inorg. Chem.* 23, 249-274 (2002); *Dalton Trans.*, 5537-5555 (2008) [Dalton Perspective]; *Eur. J. Inorg. Chem.*, 3361-3391 (2009) [Microreview]. Also, see: *Dalton Trans.* 45, 1063-1077 (2016).
2. In more than 70 papers, his group have pioneered the use of 2-pyridyl oximes for cluster and coordination polymer synthesis. For an extensive review (with many results from his group), see: *Polyhedron* 25, 134-194 (2006) [Polyhedron Report, upon invitation].
3. His group have been the first to systematically employ the SO₄²⁻ ligand in 3d-metal cluster chemistry. For a review, see: *Inorg. Chim. Acta* 362, 634-650 (2009).
4. His group are using solvothermal conditions as a promising synthetic route towards 3d/4f-metal clusters with new topologies. See, for example: *Inorg. Chem.* 49, 9737-9739 (2010).
5. His group have developed a novel "depolymerization" approach for cluster synthesis. This consists of the controlled cleavage of coordination polymers (M_x)_n containing recognizable high-nuclearity M_x clusters. See, for example: *Angew. Chem. Int. Ed.* 40, 3211-3214 (2001); *Inorg. Chem.* 49, 359-361 (2010).
6. His group have discovered novel reactivity schemes of the coordinated oxime group. For example, see: *Dalton Trans.* 41, 2862-2865 (2012); *Dalton Trans.* 46, 260-274 (2017).

- His group have synthesized and studied 3d- and 4f-metal complexes that behave as homogeneous catalysts for oxidation chemistry, see: *Polyhedron* 64, 189-202 (2013); *Inorg. Chem.* 52, 4145-4147 (2013).
- His group have characterized the chelating (η^2) coordination mode of the deprotonated oxime group in uranyl complexes, which is considered the key factor for the high selectivity of amidoxime-based absorbents in the extraction of the valuable uranyl cation from sea water, see: *Dalton Trans.* 45, 9307-9319 (2016).

Eight of Perlepes papers have been highlighted as invited outside or front covers in journals (three are shown below):



The quality of Perlepes research has been recognized with invitations to give the following 5 *plenary lectures* in international Conferences:

- “Interesting chemical, structural and magnetochemical aspects in the coordination chemistry of corrosion inhibitors of the benzotriazole type”, VIIth Winter School on Coordination Chemistry, Karpaz, Poland, December 12-16, 1994.
- “Synthetic aspects, structural variations and magnetochemical studies of high-nuclearity 3d metal complexes complexes”, XIth Winter School on Coordination Chemistry, Karpacz, Poland, December 7-11, 1998.
- “High-nuclearity complexes of 3d-metals in moderate oxidation states: Synthetic schemes and reactivity chemistry”, 6th France-Israel-Greece-Italy-Portugal-Spain Meeting in Inorganic Chemistry (6th FIGIPS), Barcelona, Spain, July 15-20, 2001.
- “Synthetic excursions in 3d-metal cluster chemistry: Ligand ‘blends’ based on di-2-pyridyl ketone, 2-pyridyl oximes and benzotriazoles”, First North America-Greece-Cyprus Workshop on Paramagnetic Materials, Nicosia, Cyprus, May 5-7, 2005.
- “In search for high-spin molecules and single-molecule magnets: Where we are and where we go?”, 9th France-Israel-Greece-Italy-Portugal-Austria-Spain Meeting in Inorganic Chemistry (9th FIGIPAS), Vienna, Austria, July 4-7, 2007.

Other recognitions/honours of Spyros P. Perlepes include:

- He is member of the Editorial Board in *Spectrochimica Acta A*, *Polyhedron*, *Bioinorganic Chemistry and Applications*, *Current Inorganic Chemistry*, *Magnetochemistry* and *Inorganica Chimica Acta*. He has served as an Editorial Board member of *European Journal of Inorganic Chemistry* for four(4) years. He is also Associate Editor in *Bioinorganic Chemistry and Applications*.
- He was invited Co-Guest Editor (i) of the special *Polyhedron* issue “The Impact of Crystallography on Inorganic Chemistry in Greece”, *Polyhedron*, vol. **28**, issue 15, 2009; (ii) of the *Bioinorganic Chemistry and Applications* “Special issue in Honor of Professor Nick Hadjiliadis Retirement”, 2010; (iii) of the special *Polyhedron* issue “Celebration of the 100th Anniversary of Alfred Werner’s Nobel Prize”, *Polyhedron*, vol. **52**, issue of March 2013.
- He has been co-organizer of the popular (i) “North America-Greece-Cyprus Workshop on Paramagnetic Materials” series of workshops (2005, 2007, 2009, 2011/Patras-chairman, 2013, 2015, 2017, 2018) and (ii) Current Trends in Nanoscopic and Mesoscopic Magnetism” (2006, 2008, 2010, 2012, 2014, 2016).

D. He was member of the 5-membered international jury for the prestigious “Olivier Kahn Award” (2015).

D. Participation of Spyros P. Perlepes in Funded Research Projects in the Last 18 Years

1. “One-Dimensional (1D), Two-Dimensional (2D) and Three-Dimensional (3D) Coordination Polymers of 1st- Row Transition Metals as Molecular Magnetic Materials”, 36.000 €, Research Committee of the University of Patras, Grant “C. Karatheodori”, 2002-2005, Project Coordinator.
2. “In Search for Single-Molecule Magnets: Synthesis, Structural Characterization and Magnetic Studies of High-Nuclearity Paramagnetic 3d-metal Complexes”, 45.000 €, Britain-Greece Joint Research and Technology Programmes, Greek General Secretariat for Research and Technology and The British Council, 2003 and 2004, Leader of the Greek Team.
3. “Chemistry of Polynuclear Complexes of 3d and 4f Metal Ions: From the Efforts for the Development of Synthetic Strategies to the Creation of Active-Site Models of Important Metallobiomolecules and from the Search of Single Molecule Magnets to the Isolation of Molecular Materials with Desirable Optical Properties”, 85.000 €, European Social Fund (ESF), Operational Program II for Educational and Training, Greek General Secretariat for Research and Technology, Grant “Pythagoras I”, 2004-2006, Project Coordinator.
4. “In Search for High-Spin Molecules and Single-Molecule Magnets”, 45.000 €, European Union (European Social Fund-ESF) and Greek National Funds (through the Operational Program ‘Educational and Lifelong Learning’ of the National Strategic Reference Framework-NSRF), Research Funding Program “Heracleitus II”, 2010-2013, Project Coordinator.
5. “Polynuclear Transition Metal Complexes: Development of Synthetic Strategies, Reactivity and Applications in Magnetic and Catalytic Materials”, 600.000 €, National Strategic Reference Framework (NSRF) 2007-2013, Operational Programme ‘Educational and Lifelong Learning’, Co-financed by Greece and the European Union, Research Funding Program: “Thales”, 2012-2015 (duration: 42 months), Project Coordinator.
6. “Introducing Optical Properties into Magnetic Coordination Clusters and Modifying their Magnetism upon Light Irradiation”, 300.000 €, “Aristeia” Action of the Operational Programme ‘Educational and Lifelong Learning’, Co-financed by the European Social Fund (ESF) and National Resources, 2012-2015, Project Coordinator.

E. A New Research Project

1. Modeling the Solvent Extraction of Toxic (e.g. Cd²⁺, Hg²⁺) Metal Ions *via* Employment of Oxime Ligands as Extracting Agents.