



**8 PAGE-CURRICULUM VITAE AND 10-YEARS TRACK
MARIA LOULUDI, Ph.D.**

PERSONAL INFORMATION

SURNAME	LOULUDI
NAME	MARIA
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TEL.	2651008418

CURRENT POSITION

2012 -today	Full Professor Department of Chemistry, University of Ioannina, Greece
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PREVIOUS POSITION(S)

2007 -2012	Associate Professor Department of Chemistry, University of Ioannina, Greece
2004 -2007	Tenure Assistant Professor Department of Chemistry, University of Ioannina, Greece
2001 -2004	Assistant Professor Department of Chemistry, University of Ioannina, Greece

EDUCATION

1992	Chemistry Department, University of Ioannina, Ioannina, Greece, Ph.D.
1986	Chemistry Department, University of Ioannina, Ioannina, Greece, Diploma in Chemistry

PUBLICATIONS

105. C. Gkatzouras, M. Solakidou, M. Louloudi "Efficient [Fe-Imidazole@SiO₂] Nanohybrids for Catalytic H₂ Production from Formic Acid" *Nanomaterials* (2023), <https://doi.org/10.3390/nano13101670>

104. M. Solakidou, A. Gemenetzi, G. Koutsikou, M.Theodorakopoulos, Y. Deligiannakis, M. Louloudi, "Cost Efficiency Analysis of H₂ Production from Formic Acid by Molecular Catalysts", *Energies* (2023), <https://doi.org/10.3390/en16041723>

103. F. Fragou, A. Theofanous, Y. Deligiannakis, M. Louloudi, "Nanoantioxidant Materials: Nanoengineering Inspired by Nature", *Micromachines* (2023) <https://doi.org/10.3390/mi14020383>

102. M. G. Papanikolaou, A. V. Simaioforidou, C. Drouza, A.C. Tsipis, H. N. Miras, A. D. Keramidis, **M.Louloudi**, and T. A. Kabanos, "A Combined Experimental and Theoretical Investigation of Oxidation Catalysis by cis-[VIV(O)(Cl/F)(N₄)]+ Species Mimicking the Active Center of Metal-Enzymes", *Inorganic Chemistry* (2022). <https://doi.org/10.1021/acs.inorgchem.2c02526>

101. A. Theofanous, I. Sarli, F. Fragou, E. Bletsas, Y. Deligiannakis, **M. Louloudi**, "Antioxidant Hydrogen-Atom-Transfer to DPPH Radicals by Hybrids of {Hyaluronic-Acid Components}@SiO₂" *Langmuir* (2022). <https://doi.org/10.1021/acs.langmuir.2c02021>

100. P. Stathi, E. Fotou, V. Moussis, V. Tsikaris, Y.Deligiannakis, **M.Louloudi**, "Control of Tyrosyl-Radical's Stabilisation by {SiO₂@Oligopeptide} Hybrid Biomimetic Materials" *Langmuir* 38 (2022) 9799. <https://doi.org/10.1021/acs.langmuir.2c00710>

99. A. Gemenetzi, C. Moularas, Y. Deligiannakis, **M. Louloudi**, "A Reversible Plasmonic Switch in a Molecular Oxidation Catalysis Process" *ACS Catal.* 12 (2022) 9908. <https://doi.org/10.1021/acscatal.2c02287>

98. F. Fragou, P. Stathi, Y. Deligiannakis, **M. Louloudi**, "Safe-by-Design Flame Spray Pyrolysis of SiO₂ Nanostructures for Minimizing Acute Toxicity" *ACS Appl. Nano Mater.* 5 (2022) 8184. <https://doi.org/10.1021/acsanm.2c01273>

97. M. Theodorakopoulos, M. Solakidou, Y.Deligiannakis, **M.Louloudi**, "A Use-Store-Reuse [USR] Concept in Catalytic HCOOH dehydrogenation: case-study of a Ru-based catalytic system for long-term USR under ambient O₂" *Energies* 14 (2021) 481. <https://doi.org/10.3390/en14020481>

96. A. Gemenetzi, P. Stathi, Y.Deligiannakis, **M.Louloudi**, "Study of the catalytic mechanism of a non-heme Fe catalyst: The role of the spin state of the iron" *Chem. Phys. Lett.* 764 (2021) 138282. <https://doi.org/10.1016/j.cplett.2020.138282>

95. P. Stathi, **M.Louloudi**, Y.Deligiannakis, "EPR monitoring of in-situ Catalytic Oxidative Assembly of Mn^{III}-Mn^{IV} Dimers via Monomeric Mn^{IV}=O" *Chem. Phys. Lett.* 763 (2021) 138255. <https://doi.org/10.1016/j.cplett.2020.138255>

94. Y.Deligiannakis, V. Tsikourkitoudi, P. Stathi, K. Wegner, J. Papavasiliou, **M.Louloudi**, "PdO/Pd⁰/TiO₂ Nanocatalysts Engineered by Flame Spray Pyrolysis: Study of the Synergy of PdO/Pd⁰ on H₂ Production by HCOOH Dehydrogenation and the Deactivation Mechanism" *Energy Fuels* 34 (2020) 15026. <https://doi.org/10.1021/acs.energyfuels.0c02399>

93. F. Fragou, C. Moularas, K. Adamska, Y. Deligiannakis, **M. Louloudi**, "[Nanocarbon@SiO₂] Supported Mn-Catalysts with Enhanced Epoxidation Catalytic Activity: Scalable Engineering and Mechanisms" *ACS Appl. Nano Mater.* 3 (2020) 5583. <https://doi.org/10.1021/acsanm.0c00849>

92. Y. Georgiou, S. Rapti, A. Maurogiorgou, G. Armatas, M. J. Manos, **M.Louloudi**, Y.Deligiannakis, "A Hybrid {Silk@Zirconium MOF} Material as Highly Efficient As^{III}-sponge" *Sci. Rep.* 10 (2020) 9358. <https://www.nature.com/articles/s41598-020-66091-w>

91. M. Solakidou, M. Theodorakopoulos, Y.Deligiannakis, **M.Louloudi**, "Double-Ligand Fe, Ru Catalysts: a Novel Route for Enhanced H₂ Production from Formic Acid" *Int. J. Hydrogen Energy* 45 (2020) 17367. <https://doi.org/10.1016/j.ijhydene.2020.04.215>

90. L. Pierri, A. Gemenetzi, A. Mavrogiorgou, J.B. Regitano, Y. Deligiannakis, **M. Louloudi**, "Biochar as supporting material for heterogeneous Mn(II) catalysts: efficient olefins epoxidation with H₂O₂" *Mol. Catal.* 489 (2020) 110946. <https://doi.org/10.1016/j.mcat.2020.110946>

89. P. Stathi, M. Solakidou, Y.Deligiannakis, **M.Louloudi**, "From Homogeneous to Heterogenized Molecular Catalysts for H₂ Production by Formic Acid Dehydrogenation:

mechanistic aspects, role of additives & co-catalysts" *Energies* 13 (2020) 733. <https://doi.org/10.3390/en13030733>

88. E. Bletsa, M. Solakidou, **M.Louloudi**, Y.Deligiannakis, "Ambient O₂ is a Switch between [1-electron/1-radical] vs. [2-electrons] Oxidative Catalytic Path of a Fe-Phtalocyanine catalyst" *Chem. Phys. Lett.* 743 (2020) 137180. <https://doi.org/10.1016/j.cplett.2020.137180>

87. M. Solakidou, A. Giannakas, Y. Georgiou, **M.Louloudi**, Y.Deligiannakis, "Efficient photocatalytic water-splitting performance by ternary CdS/Pt-N-TiO₂ and CdS/Pt-N,F-TiO₂: interplay between CdS photo corrosion and TiO₂-dopping" *Appl. Catal. B- Environ.* 254 (2019) 194. <https://doi.org/10.1016/j.apcatb.2019.04.091>

86. A. Simaioforidou, V. Costas, M.A. Karakassides, **M.Louloudi**, "Surface Chemical Modification of Macroporous and Mesoporous Carbon materials: Effect on their textural and catalytic properties" *Micropor. Mesopor. Mat.* 279 (2019) 334. <https://doi.org/10.1016/j.micromeso.2019.01.005>

85. M. Solakidou, Y.Deligiannakis, **M.Louloudi**, "NH₂-based Heterogeneous Cocatalyst Boosts H₂-Production from HCOOH by the Ru^{III}/P(CH₂CH₂PPh₂)₃ Catalyst" *Int. J. Hydrogen Energy* 43 (2018) 21386. <https://doi.org/10.1016/j.ijhydene.2018.09.198>

84. A. Simaioforidou, Y. Georgiou, A. Bourlinos, **M. Louloudi**, "Molecular Mn-catalysts grafted on graphitic carbon nitride (gCN): the behavior of gCN as support matrix in oxidation reactions" *Polyhedron* 153 (2018) 41. <https://doi.org/10.1016/j.poly.2018.06.048>

83. A. Maurogiorgou, A. Simaioforidou, **M. Louloudi**, "Pyrolytic Carbon as Support Matrix for Heterogeneous Oxidation Catalysts: Influence of Pyrolytic Process on Catalytic Behaviour" *J. Environ. Chem. Eng.* 6 (2018) 1127. <https://doi.org/10.1016/j.jece.2018.01.040>

82. M. Papastergiou, Ag. Stamatis, A. Simaioforidou, **M. Louloudi**, "Bio-Inspired Mn-catalysts immobilized on silica surface: the influence of the ligand synthesis on catalytic behavior" *Catalysis Communications* 108 (2018) 33. <https://doi.org/10.1016/j.catcom.2018.01.026>

81. K.C. Christoforidis, I. Vasiliadou, **M.Louloudi**, Y.Deligiannakis, "Gallic acid mediated oxidation of pentachlorophenol by the Fenton reaction under mild oxidative conditions" *J. Chem. Technol. Biotechnol.* 93 (2018) 1601. <https://doi.org/10.1002/jctb.5529>

80. E. Mouzourakis, Y. Georgiou, **M. Louloudi**, I.K. Konstantinou, Y. Deligiannakis, "Recycled-Tire Pyrolytic Carbon Made Functional: a High-Arsenite (AsIII) Uptake, High Cost-Efficiency Material PyrC₃₅₀" *J. Hazard. Mater.* 326 (2017) 177. <https://doi.org/10.1016/j.jhazmat.2016.12.027>

79. A. Simaioforidou, E. Bletsa, Y.Deligiannakis, **M.Louloudi**, "Functionalised Graphene Oxides Stabilizing Cu⁺¹ Ions under Ambient O₂" *Mater. Design* 116 (2017) 227. <https://doi.org/10.1016/j.matdes.2016.12.015>

78. A. Simaioforidou, M. Papastergiou, A. Margellou, D. Petrakis, **M. Louloudi**, "Activated vs. Pyrolytic Carbon as Support Matrix for Chemical Functionalization: Efficient Heterogeneous non-Heme Mn(II) Catalysts for Alkene Oxidation with H₂O₂" *J. Mol. Catal. A* 426 (2017) 516. <https://doi.org/10.1016/j.molcata.2016.08.033>

77. K.C. Christoforidis, D.A. Pantazis, L.L. Bonilla, **M.Louloudi**, Y.Deligiannakis, "Axial ligand effect on the catalytic activity of biomimetic Fe-porphyrin catalyst: An experimental and DFT study" *J. Catal.* 344 (2016) 768. <https://doi.org/10.1016/j.jcat.2016.08.013>

76. P. Stathi, **M. Louloudi**, Y. Deligiannakis, "Efficient Low-Temperature H₂ Production from HCOOH/HCOO⁻ by [Pd⁰@SiO₂-Gallic-Acid] Nanohybrids: Catalysis and the Underlying Thermodynamics & Mechanism" *Energy Fuels* 30 (2016) 8613. <https://doi.org/10.1021/acs.energyfuels.6b01729>

75. M. Papastergiou, P. Stathi, E.R. Milaeva, Y.Deligiannakis, **M.Louloudi**, "Comparative Study of the Catalytic Thermodynamic Barriers for two Homologous Mn- and Fe-Non-Heme oxidation catalysts" *J. Catal.* 341 (2016) 104. <https://doi.org/10.1016/j.jcat.2016.06.017>

74. E. Bletsa, M. Solakidou, **M.Louloudi**, Y.Deligiannakis, "Oxidative Catalytic Evolution of Redox- and Spin-States of a Fe-Phtalocyanine Studied by EPR" *Chem. Phys. Lett.* 649 (2016) 48. <https://doi.org/10.1016/j.cplett.2016.02.032>

- 73.** A. Maurogiorgou, M. Baikousi, V. Costas, E. Mouzourakis, Y. Deligiannakis, M.A. Karakassides, **M. Louloudi**, "Mn-Schiff base modified MCM-41, SBA-15 and CMK-3 NMs as Single-Site Heterogeneous catalysts: Alkene Epoxidation with H₂O₂ incorporation" *J. Mol. Catal. A* 413 (2016) 40. <https://doi.org/10.1016/j.molcata.2015.12.015>
- 72.** K.C. Christoforidis, **M. Louloudi**, Y. Deligiannakis, "Effect of Humic Acid on Chemical Oxidation of Organic Pollutants by Iron(II) and H₂O₂: a dual mechanism" *J. Environ. Chem. Eng.* 3 (2015) 2991. <https://doi.org/10.1016/j.jece.2015.02.005>
- 71.** E. Bletsas, P. Stathi, K. Dimos, **M. Louloudi**, Y. Deligiannakis, "Interfacial Hydrogen Atom Transfer by Nanohybrids based on Humic Acid Like Polycondensates" *J. Colloid Interf. Sci.* 455 (2015) 163. <http://dx.doi.org/10.1016/j.jcis.2015.05.039>
- 70.** E. Seristatidou, A. Maurogiorgou, I.K. Konstantinou, **M. Louloudi**, Y. Deligiannakis, "Recycled Carbon (RC) Materials Made Functional: An Efficient Heterogeneous Mn-RC Catalyst" *J. Mol. Catal. A* 403 (2015) 84. <https://doi.org/10.1016/j.molcata.2015.04.001>
- 69.** P. Stathi, Y. Deligiannakis, G. Avgouropoulos, **M. Louloudi**, "Efficient H₂ Production from Formic Acid by a Supported Iron Catalyst on Silica." *Appl. Catal. A-Gen.* 498 (2015) 176. <https://doi.org/10.1016/j.apcata.2015.03.029>
- 68.** P. Stathi, Y. Deligiannakis, **M. Louloudi**, "Co-catalytic Enhancement of H₂ Production by Metal Oxide Nanoparticles." *Catal. Today* 242 (2015) 146. <https://doi.org/10.1016/j.cattod.2014.07.012>
- 67.** S. Lympeopoulou, M. Papastergiou, **M. Louloudi**, C. Raptopoulou, V. Psycharis, A.N. Georgopoulou, C. J. Milios, J. C. Plakatouras, "Synthesis, Characterization, Magnetic and Catalytic properties of a novel Mn(II) Ladder Shaped Coordination Polymer." *Eur. J. Inorg. Chem.* (2014) 3638. <https://doi.org/10.1002/ejic.201402419>
- 66.** A. Maurogiorgou, M. Papastergiou, Y. Deligiannakis, **M. Louloudi**, "Activated Carbon Functionalised with Mn(II) Schiff base Complexes as Efficient Alkene Oxidation Catalysts: Solid Support Matters" *J. Mol. Catal. A* 393 (2014) 8. <https://doi.org/10.1016/j.molcata.2014.05.038>
- 65.** G. Bilis, P. Stathi, A. Mavrogiorgou, Y. Deligiannakis, **M. Louloudi**, "Improved Robustness of Heterogeneous Fe-non-heme Oxidation Catalysts: a Catalytic and EPR study" *Appl. Catal. A-Gen.* 470 (2014) 376. <https://doi.org/10.1016/j.apcata.2013.11.009>
- 64.** P. Stathi, G. Mitrikas, Y. Sanakis, **M. Louloudi**, Y. Deligiannakis, "Back-clocking of Fe²⁺/Fe¹⁺ Spin states in a H₂ Producing Catalyst by Advanced EPR" *Mol. Phys.* 111 (2013) 2942. <https://doi.org/10.1080/00268976.2013.798045>

CONFERENCES

- 80. M. Louloudi** (Invited Speaker): "Hybrid Nanocatalytic Materials for Industrial Scale H₂-Production from HCOOH under Ambient Conditions" 9th World Congress on Particle Technology (WCPT9), September 2022, Madrid, Spain.
- 79. L. Hercouët** (oral presentation), H. Samain, Ch. Jouy, E. Folliasson, W. Keuong, G. Robert, T. Vautier, L. Abdat-Vindel, A. Gemenetzi, M. Theodorakopoulos, Y. Deligiannakis, **M. Louloudi**, XXVI International Federation of Societies of Cosmetic Chemists (IFSCC), October 2021, Cancun, Mexico.
- 78. L. de Pierri**, J. Borges Regitano, Y. Deligiannakis, **M. Louloudi**, XXIII EBSH-MON, October 2019, Maceio, Brazil. ..
- 77. M. Louloudi** (invited Lecture): "Metal complexes interfaced with inorganic particles: the hybrid technology in catalysis", 5th European Chemical Society Inorganic Chemistry Conference (EICC-5), June 2019, Moscow, Russia.
- 76.** Y. Georgiou, M. Solakidou, A. Zindrou, Y. Deligiannakis, **M. Louloudi**, Advanced Nano & Energy Materials (ANEM 2018), December 2018, Perth, Australia.
- 75.** a) Y. Georgiou, A. Zindrou, Y. Deligiannakis, **M. Louloudi** (oral presentation), b) M. Solakidou, Y. Deligiannakis, **M. Louloudi** (oral presentation), c) A. Gemenetzi, P. Stathi, A. Mavrogiorgou, Y. Deligiannakis, **M. Louloudi**, (oral presentation), d) P. Stathi, **M. Louloudi**, Y. Deligiannakis e) F. Fragou, A. Mavrogiorgou, E. Bletsas, E. Mouzourakis, Y. Deligiannakis, **M. Louloudi**, f) M. Theodorakopoulos, M. Solakidou, **M. Louloudi**, 15th Panhellenic Symposium of Catalysis, October 2018, Ioannina, Greece.
- 74. M. Louloudi**, E. Bletsas, Y. Deligiannakis, IHSS19, September 2018, Varna, Bulgaria.
- 73.** M. Solakidou, **M. Louloudi** (Lecture): "NH₂-based Heterogeneous Cocatalyst Boosts H₂-Production from HCOOH by the Ru^{III}/P(CH₂CH₂PPh₂)₃ Catalyst" 255th ACS National Meeting, March 2018, New Orleans, LA, USA.

MEMBERSHIPS & REVIEWING ACTIVITIES

2005-present	Expert reviewer for ISI Journals: Journal of Materials Chemistry, Catalysis Science & Technology, ChemComm, Dalton Transactions, PCCP & Faraday Discussions, New Journal Chemistry, Polyhedron, Catalysis Communications, J. Molecular Catalysis A, Catalysis Letters, Applied Catalysis A: General, Journal of Catalysis, Environmental Science & Technology, ACS Applied Materials & Interfaces, ACS Catalysis.
2012-present	Expert for the evaluation of research proposals, projects and scholarships: national agencies (Hellenic Foundation for Research & Innovation , General Secretariat for Research & Innovation , State Scholarships Foundation , Ministry of Education). Also: reviews for STW (Dutch Technology Foundation), FWF (Austrian Science Foundation), State Secretariat for Education & Research SER (Swiss Confederation).
2018-present	Expert for the progress assessment of research proposals HFRI

TEACHING ACTIVITIES

2001 -today	Undergraduate courses: Basic and Advanced Inorganic Chemistry. Topics: Catalysis by Metal Complexes, Mechanisms, MetalloBiomolecules (University of Ioannina)
2001 -today	Postgraduate courses: Hybrid Materials, Homogeneous/Heterogeneous Catalysts, Chemical Surface Modification of Materials, Catalytic Processes (University of Ioannina)

SUPERVISION OF GRADUATE STUDENTS & POSTDOCTORAL FELLOWS

Supervision of 3 Postdoctoral Fellows (2 accomplished, 1 in progress)
Supervisor of 14 PhD Theses (10 accomplished, 4 in progress)
Supervisor of 28 MsSc. Theses (25 accomplished, 3 in progress)
Supervisor of 72 Diploma theses (70 accomplished, 2 in progress)

FELLOWSHIPS and AWARDS

9/1993-8/1995	(E.U. Human Capital and Mobility Fellowship) Post-doctoral associate, University of Rene Descartes, CNRS, URA 400, Paris, France.
1/1996-12/1996	(E.U. Return Grant) Postdoctoral Fellow , Chemistry Department, University of Ioannina, Ioannina, Greece.

RESEARCH GRANTS *(If applicable)*

Project Title	Funding source	Period	Role of the PI
Study of Rare Earth Coatings on Fibers	L'OREAL France	2023-2024	coordinator
Study of Ionic Interaction on Processes in Fibers	L'OREAL France	2022-2023	coordinator
Development of Hybrid NanoScaffolds for Continuous H ₂ Production by C1-Substrates	H.F.R.I. Second Call for H.F.R.I. Research Projects to support Faculty Members and Researchers	2022-2025	coordinator
Study of Redox Processes in Fibrous Materials	L'OREAL France	2020-2021	coordinator
Study of Ros-Induced Damage of Fibers	L'OREAL France	2019-2020	coordinator
Coloration & Decoloration of Hair Fibers	L'OREAL France	2018-2019	coordinator
Study of Radicals and Metal Clusters in Hair Fibers	L'OREAL France	2017-2018	coordinator
Melanin Study: Coloration & Radicals Mechanism	L'OREAL France	2016-2017	coordinator
Catalytic Oxidation & Decoloration of Melanin'	L'OREAL France	2015-2016	coordinator
Development of Pyrolytic Materials for Environmental and Catalytic Applications	SYNERGASIA	2012-2015	co-coordinator
Development of Synthetic Strategies, Reactivity and Applications in Magnetic and Catalytic Materials	THALIS	2012-2015	group leader
Development of Hybrid Meso and Nano Porous Materials for	THALIS	2012-2015	group member

Environmental and Catalytic Applications			
Metallo-porphyrins on Silica for Hydrocarbon Oxidation	Bilateral Collaboration (Greece-Russia)	2005-2007	coordinator
Bioactive and Biomimetic Materials via Sol-Gel Method	PYTHAGORAS II-EPEAEK	2004-2007	coordinator
Development of Composite Biomimetic Materials for Catalytic Oxidation of Organic Substrates	HRAKLEITOS I-EPEAEK	2002-2006	coordinator

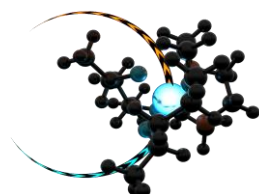
GRANT APPLICATIONS OF RELATED PROJECTS

Project Title	Funding source	Submission date	Role of the PI
Development of Hybrid NanoScaffolds for Continuous H ₂ Production by C1-Substrates	H.F.R.I. Second Call for H.F.R.I. Research Projects to support Faculty Members and Researchers	2022-2025	coordinator

1 PI SCIENTIFIC ACHIEVEMENTS




PI is the founder and director of the lab **BIOMIMETIC CATALYSIS & HYBRID MATERIALS**
<http://catalysis.chem.uoi.gr>



RESEARCH INTERESTS AND ACTIVITY

- Inorganic Catalytic Technology:** [a] Catalytic Hydrogen-Production Using Molecular-Hybrid Systems Under Ambient P,T; *Synthesis of Functional Ligands and their Metal-Complex Catalysts:* Ru-complexes, Fe-complexes, Ni-complexes, Ir-complexes. *Functional NanoHybrids:* SiO₂-based, NanoCarbon-based, Plasmonic-Based. BioNatural-based (silk, cellulose, arginines.) *H₂-production & CO₂ reduction:* Formic acid decomposition & production from CO₂ reduction by molecular catalysts, hybrid nanoparticles. CH₃OH decomposition to HCOOH and H₂.
 [b] Scale-Up H₂ Production Technology: Use-Stop-Reuse (USR) technology. Cocatalyst-free H₂ production
 [c] Safe by Design NanoHybrids: novel Nano antioxidants based on hybrid materials, nontox-SiO₂, CeO₂.
- Biomimetic Catalysis-Molecular Catalysis:** *Hydrocarbon oxidation:* Mn-complexes, Fe-complexes, Mn-, Fe-porphyrins, mechanistic studies. *Phenol-catechol oxidation:* Cu-complexes, mechanistic studies. *Catalytic decomposition of chlorophenols & dyes:* Fe-, Mn-porphyrins, mechanistic studies.

- **Hybrid organic-inorganic materials–Development of Composite Materials:** Chemical Surface Modification of Silica, Metal Oxides, Carbon-based Materials, Nano-Particles. Hybrid Materials. Sol-gel Materials. Heterogeneous Oxidation Catalysts. Heterogeneous catalysts for dehydrogenations & CO₂ reduction. Bio-active Hybrid Materials.
- **Chemical Biomimetics:** Metal Ions in Biological Systems, Models of Thiamine Enzymes, Cytochromes P-450, Models of Mn- and Fe-non-Heme Enzymes, Biomimetics of Cu-enzymes.

 She has published over **100** peer reviewed papers in top ISI journals [*including Scientific Reports, ACS Catalysis, J. Catalysis, ACS Energy & Fuels, ACS Appl Nano Mat, Appl. Catal.A-&-B, J.Mol.Catal A, JACS, Inorg. Chem., Env. Sci. Technology, Langmuir, Int. J. Hydrogen Energy,*] which have received over **1500** citations (*without self-citations or author overlap*) [Total Impact Factor >**420**, h index =**27**].

Organization of Scientific Conferences

She was the **organiser** of the 15th Panhellenic Symposium of **Catalysis** which was held at Ioannina on October 2018.

5. [Organizer]15th Panhellenic Symposium of Catalysis, Ioannina, Greece, October **2018**.
4. [Member of organizing committee] 5th Panhellenic Symposium on Green Chemistry, Ioannina, Greece, October **2014**.
3. [Member of organizing & Scientific committee] 17th IHSS Conference, Ioannina, Greece, 1-6 September **2014**.
2. [Member of organizing committee] 2nd Panhellenic Conference on Thermal Analysis, Ioannina, Greece,25-27 June **2004**.
1. [Secretary of organizing committee and Scientific committee member] Vth International Symposium on Applied Bioinorganic Chemistry Corfu, Greece, 13-17 April **1999**.

GRANDED PATENTS

PI has **four issued patents**, all on **hybrid-functional materials**.

<u>PATENT Nr</u>	<u>TITLE of INVENTION</u>
	https://patentscope.wipo.int/search/en/result.jsf?_vid=P10-L92GFB-48831
WO PATENTS	
WO/2022/112053	USE OF A PARTICULAR METAL OXIDE FOR THE PHOTOCONVERSION OF ORGANIC COMPOUNDS ON KERATIN MATERIALS
WO/2021/130371	METAL OXIDE PARTICLES COATED WITH A RARE-EARTH OXIDE AND PROCESS FOR PREPARING SAME BY FLAME SPRAY PYROLYSIS
WO/2021/130370	PROCESS FOR PREPARING PARTICLES COATED WITH SILICON OXIDE BY FLAME SPRAY PYROLYSIS
WO/2021/130369	PROCESS FOR PREPARING COATED ZINC OXIDE PARTICLES BY FLAME SPRAY PYROLYSIS
FRENCH PATENTS	
3116434	UTILISATION D'UN OXYGE METALLIQUE PARTICULIER POUR LA PHOTOCONVERSION DE COMPOSES ORGANIQUES SUR LES MATIERES KERATINIQUES

3105789	PARTICULES D'OXYDE DE METAL ENROBEES D'OXYDE DE TERRE RARE ET SON PROCEDE DE PREPARATION PAR PYROLYSE PAR PROJECTION DE FLAMME
3105788	PROCEDE DE PREPARATION DE PARTICULES ENROBEES D'OXYDE DE SILICIUM PAR PYROLYSE PAR PROJECTION DE FLAMME
3105787	PROCEDE DE PREPARATION DE PARTICULES D'OXYDE DE ZINC ENROBEES PAR PYROLYSE PAR PROJECTION DE FLAMME
GREEK PATENTS	
1008854	PHOTOCATALYTIC REGENERATED COMPOSITE WASTED-TIRE PYROLYTIC CARBON-N,F-TIO ₂ ADSORBENT FOR PHENOL SORPTION-DEGRADATION
1008850	MATERIAL BEING DERIVED FROM RECYCLED TIRES: PYROLYTIC CARBON OPTIMISED FOR ARSENIC REMOVAL
1008352	HYBRID ANTIBACTERIAL NANOMATERIAL
1003613	COMPLEXES OF METAL IONS WITH IMIDAZOLE AND ITS DERIVATIVES GRAFTED ON SILICA SURFACE FOR CO ABSORPTION