

## Previous Scientific production and Research Highlights

### i) Scientific publications

#### Publication Metrics (Thomson Reuters Web of Science)

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Web of Knowledge Researcher ID: <b>C-5140-2009</b>	Number of articles: 34
Retrieved at 13.Jul.2018	Articles with citation data: 34
	Sum of the times cited: 1051
Other Researcher identifiers:	Sum of times cited (without self-citations): 901
Orcid ID: 0000-0002-2671-6969	Average Citations per Item: 30,91
Orcid link: <a href="http://orcid.org/0000-0002-2671-6969">http://orcid.org/0000-0002-2671-6969</a>	<b>h-index: 17</b>
	<b>Articles with Impact Factor Q1: 14 (41%)</b>
	Articles with Impact Factor Q1-Q2: 97%
	Articles with foreign institutions: 38%

#### Articles in Refereed International Journals

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**34.** Tosi, I.; Vurchio, C.; Abrantes, M.; Gonçalves, I. S.; Pillinger, M.; Cavani, F.; Cordero, F. M.; Brandi, A. "[MoO<sub>3</sub>(2,2'-bipy)]<sub>n</sub> catalyzed oxidation of amines and sulfides" *Catal. Commun.*, **2018**, 103, 60–64.

**DOI:** <http://dx.doi.org/10.1016/j.catcom.2017.09.022>

Impact factor quartile: Q1

**33.** Bruno, S.; Gomes, A. C.; Abrantes, M.; Valente, A. A.; Pillinger, M.; Gonçalves, I. S. "Ring-opening of epoxides promoted by organomolybdenum complexes of the type [(h<sup>5</sup>-C<sub>5</sub>H<sub>4</sub>R)Mo(CO)<sub>2</sub>(h<sup>3</sup>-C<sub>3</sub>H<sub>5</sub>)] and [(h<sup>5</sup>-C<sub>5</sub>H<sub>5</sub>)Mo(CO)<sub>3</sub>(CH<sub>2</sub>R)]" *J. Organomet. Chem.*, **2015**, 799-800, 179-183.

**DOI:** <http://dx.doi.org/10.1016/j.jorganchem.2015.09.022>

Impact factor Quartile: Q2

**32.** Nunes, P.; Gomes, A. C.; Pillinger, M.; Gonçalves, I. S.; Abrantes, M. "Promotion of phosphoester hydrolysis by the ZrIV-based metal-organic framework UiO-67" *Micro. Mesop. Mat.*, **2015**, 208, 21-29.

**DOI:** <http://dx.doi.org/10.1016/j.micromeso.2015.01.01>

Impact factor quartile: Q1

**31.** Gomes, A. C.; Gamelas, C. A.; Fernandes, J. A.; Paz, F. A. A.; Nunes, P.; Pillinger, M.; Gonçalves, I. S.; Romão, C. C.; Abrantes, M. "Use of organo-molybdenum compounds for promoted hydrolysis of phosphoester bonds in aqueous media" *Eur. J. Inorg. Chem.*, **2014**, 3681–3689.

**DOI:** <http://dx.doi.org/10.1002/ejic.201402071>

Impact factor quartile: Q2

**30.** Bruno, S.; Gomes, A. C.; Gamelas, C. A.; Abrantes, M.; Oliveira, M. C.; Valente, A. A.; Paz, F. A. A.; Romão, C. C.; Pillinger, M.; Gonçalves, I. S. "Application of an indenyl molybdenum dicarbonyl complex in the isomerisation of  $\alpha$ -pinene Oxide to Campholenic Aldehyde" *New J. Chem.*, **2014**, 38, 3172-3180.

DOI: <http://dx.doi.org/10.1039/c4nj00371c>

Impact factor quartile: Q2

**29.** Gomes, A. C.; Pillinger, M.; Nunes, P.; Gonçalves, I. S.; Abrantes, M. "Promotion of phosphoester hydrolysis by  $\text{MoO}_2\text{Cl}_2\text{L}$  (L=bipyridine derivatives,  $\text{H}_2\text{O}$ , no ligand),  $\text{MoO}_2(\text{CH}_3)_2\text{L}$  (L=bipyridine derivatives) and related inorganic-organic hybrids in aqueous media" *J. Organomet. Chem.*, **2014**, 760, 42-47.

DOI: <http://dx.doi.org/10.1016/j.jorganchem.2013.12.029>

Impact factor quartile: Q2

**28.** Gomes, A. C.; Bruno, S. M.; Abrantes, M.; Magalhães, C. I. R.; Gonçalves, I. S.; Valente, A. A.; Pillinger, M. "Catalytic olefin epoxidation with a carboxylic acid-functionalized cyclopentadienyl molybdenum tricarbonyl complex" *J. Organomet. Chem.*, **2014**, 760, 205-211.

DOI: <http://dx.doi.org/10.1016/j.jorganchem.2013.10.037>

Impact factor quartile: Q2

**27.** Gomes, A. C.; Bruno, S. M.; Gamelas, C. A.; Valente, A. A.; Abrantes, M.; Gonçalves, I. S.; Romão, C. C.; Pillinger, M. "Intercalation of a molybdenum  $\eta^3$ -allyl dicarbonyl complex in a layered double hydroxide and catalytic performance in olefin epoxidation" *Dalton Trans.*, **2013**, 42, 8231.

DOI: <http://dx.doi.org/10.1039/c3dt50132a>

Impact factor quartile: Q1

**26.** Gomes, A. C.; Bruno, S. M.; Tomé, C.; Valente, A. A.; Pillinger, M.; Abrantes, M.; Gonçalves, I. S. "Synthesis and Characterization of  $\text{CpMo}(\text{CO})_3(\text{CH}_2\text{-pC}_6\text{H}_4\text{-CO}_2\text{CH}_3)$  and its Inclusion Compounds with Methylated Cyclodextrins. Applications in Olefin Epoxidation Catalysis" *J. Organomet. Chem.*, **2013**, 730, 116-122.

DOI: <http://dx.doi.org/10.1016/j.jorganchem.2012.12.019>

Impact factor quartile: Q2

**25.** Tomé, C.; Oliveira, M. C.; Pillinger, M.; Gonçalves, I. S.; Abrantes, M. "Use of  $\text{MoO}_2\text{Cl}_2(\text{DMF})_2$  as a Precursor for Molybdate Promoted Hydrolysis of Phosphoester Bonds" *Dalton Trans.*, **2013**, 42, 3901-3907.

DOI: <http://dx.doi.org/10.1039/c2dt32734a>

Impact factor quartile: Q1

**24.** Amarante, T. R.; Neves, P.; Tomé, C.; Abrantes, M.; Valente, A. A.; Paz, F. A. A.; Pillinger, M.; Gonçalves,

I. S. "An Octanuclear Molybdenum(VI) Complex Containing Coordinatively Bound 4,4'-di-tert-Butyl-2,2'-Bipyridine,  $[\text{Mo}_8\text{O}_{22}(\text{OH})_4(\text{di-tBu-bipy})_4]$ . Synthesis, Structure and Catalytic Epoxidation of Bio-Derived Olefins" *Inorg. Chem.*, **2012**, 51, 3666-3676.

DOI: <http://dx.doi.org/10.1021/ic202640a>

Impact factor quartile: Q1

**23.** Abrantes, M.; Gonçalves, I. S.; Pillinger, M.; Vurchio, C.; Cordero, F.M.; Brandi, A. "Molybdenum Oxide/Bipyridine Hybrid Material  $\{[\text{MoO}_3(\text{bipy})][\text{MoO}_3(\text{H}_2\text{O})]\}_n$  as Catalyst for the Oxidation of Secondary Amines to Nitrones" *Tetrahedron Lett.*, **2011**, 52, 7079–7082.

DOI: <http://dx.doi.org/10.1016/j.tetlet.2011.10.079>

Impact factor quartile: Q2

**22.** Abrantes, M.; Bruno, S. M.; Tomé, C.; Pillinger, M.; Gonçalves, I. S.; Valente, A. A. "Epoxidation of DL-limonene using an indenyl molybdenum(II) tricarbonyl complex as catalyst precursor" *Catal. Commun.*, **2011**, 64–67.

DOI: <http://dx.doi.org/10.1016/j.catcom.2011.08.015>

Impact factor quartile: Q1

**21.** Abrantes, M.; Amarantes, T.R.; Antunes, M.M.; Gago, S.; Almeida Paz, F.A.; Margiolaki, I.; Rodrigues, A.E.; Pillinger, M.; Valente, A.A.; Gonçalves, I.S. "Synthesis, Structure, and Catalytic Performance in Cyclooctene Epoxidation of a Molybdenum Oxide/Bipyridine Hybrid Material:  $\{[\text{MoO}_3(\text{bipy})][\text{MoO}_3(\text{H}_2\text{O})]\}_n$ " *Inorg. Chem.*, **2010**, 49, 6865–6873.

DOI: <http://dx.doi.org/10.1016/j.tetlet.2011.10.079>

Impact factor quartile: Q1

**20.** Abrantes, M.; Neves, P.; Antunes, M.M.; Gago, S.; Almeida Paz, F.A.; Rodrigues, A.E.; Pillinger, M.; Gonçalves, I.S.; Silva, C.M.; Valente, A.A. "Microwave-Assisted Molybdenum-Catalysed Epoxidation of Olefins", *J. Mol. Catal. A: Chem.*, **2010**, 320, 19-26.

DOI: <http://dx.doi.org/10.1016/j.molcata.2009.12.011>

Impact factor quartile: Q2

**19.** Amarante, T.R.; Almeida Paz, F.A.; Gago, S.; Gonçalves, I.S.; Pillinger, M.; Rodrigues, A.E.; Abrantes, M. "Microwave-Assisted Synthesis and Crystal Structure of Oxo(diperoxo)(4,4'-di-tert-butyl-2,2'-bipyridine)-molybdenum(VI)" *Molecules*, **2009**, 14, 3610-3620.

DOI: <http://dx.doi.org/10.3390/molecules14093610>

Impact factor quartile: Q2

**18.** Abrantes, M.; Almeida Paz, F.A.; Valente, A.A.; Pereira, C.C.L.; Gago, S.; Rodrigues, A.E.; Klinowski, J.;

Pillinger, M.; Gonçalves, I.S. "Amino Acid-Functionalized Cyclopentadienyl Molybdenum Tricarbonyl Complex and its Use in Catalytic Olefin Epoxidation" *J. Organomet. Chem.*, **2009**, 94, 1826-1833.

DOI: <http://dx.doi.org/10.1016/j.jorganchem.2009.01.012>

Impact factor quartile: Q2

17. Abrantes, M.; Valente, A.A.; Pillinger, M.; Romão, C.C.; Gonçalves, I.S. "Characterization of a chiral menthyl dimethyltin molybdate and its use as an olefin epoxidation catalyst" *Catal. Letters*, **2007**, 114, 103-109.

DOI: <http://dx.doi.org/10.1007/s10562-007-9048-2>

Impact factor quartile: Q2

16. Abrantes, M.; Balula, M.S.; Valente, A.A.; Paz, F.A.A.; Pillinger, M.; Romão, C.C.; Rocha, J.; Gonçalves, I.S. "Structural and catalytic studies of a trimethyltin vanadate coordination polymer" *J. Inorg. Organomet. Polym. Mater.*, **2007**, 17, 215.

DOI: <http://dx.doi.org/10.1007/s10904-006-9080-5>

Impact factor quartile: Q3

15. Bruno, S.M.; Monteiro, B.; Balula, M.S.; Pedro, F.; Abrantes, M.; Valente, A.; Pillinger, M.; Ribeiro-Claro, P.; Kühn, F.E.; Gonçalves, I.S. "Synthesis and catalytic properties in olefin epoxidation of chiral oxazoline dioxomolybdenum(VI) complexes" *J. Mol. Cat, A: Chem.*, **2006**, 260, 11-18.

DOI: <http://dx.doi.org/10.1016/j.molcata.2006.06.049>

Impact factor quartile: Q2

14. Freund, C.; Abrantes, M.; Kühn, F.E. "Monomeric cyclopentadiene molybdenum oxides and their carbonyl precursors as epoxidation catalysts" *J. Organomet. Chem.*, **2006**, 691, 3718-3712.

DOI: <http://dx.doi.org/10.1016/j.jorganchem.2006.05.007>

Impact factor quartile: Q2

13. Abrantes, M.; Sakthivel, A.; Kühn, F.E.; Romão, C. C. "A Chiral Menthyl Cyclopentadienyl Molybdenum Tricarbonyl Chloro Complex: Synthesis, Heterogenization on MCM-41/MCM-48 and Application in Olefin Epoxidation Catalysis" *J. Organomet. Chem.*, **2006**, 691, 3137-3145.

DOI: <http://dx.doi.org/10.1016/j.jorganchem.2006.03.037>

Impact factor quartile: Q2

12. Kühn, F.E.; Santos, A. M.; Abrantes, M. "Mononuclear Organomolybdenum(VI) Dioxo Complexes: Synthesis, Reactivity and Catalytic Applications" *Chem. Rev.*, **2006**, 106, 2455-2475.

DOI: <http://dx.doi.org/10.1021/cr040703p>

**Impact factor quartile:** Q1 (1<sup>st</sup> in IF ranking)

**11.** Sakthivel, A.; Abrantes, M.; Chiang, A.S.T.; Kühn, F.E. "Grafting of  $\eta^5$ - Cp(COOMe)MoCl(CO)<sub>3</sub> on the surface of mesoporous MCM-41 and MCM-48 materials" *J. Organomet. Chem.*, **2006**, 691, 1007-1011.

**DOI:** <http://dx.doi.org/10.1016/j.jorganchem.2005.10.054>

Impact factor quartile: Q2

**10.** Gago, S.; Fernandes, J.A.; Abrantes, M.; Kühn, F.E.; Ribeiro-Claro, P.; Pillinger, M.; Santos, T.M.; Gonçalves, I.S. "Immobilisation of methyltrioxorhenium on functionalised MCM-41" *Microp. Mesop. Mat.*, **2006**, 89, 284-290.

**DOI:** <http://dx.doi.org/10.1016/j.micromeso.2005.10.038>

Impact factor quartile: Q1

**9.** Abrantes, M.; Valente, A.; Gonçalves, I. S.; Pillinger, M.; Romão, C. C. "Organotin-oxomolybdate coordination polymers as catalysts for the epoxidation of cyclooctene" *J. Mol. Cat, A: Chem.*, **2005**, 238, 51-55.

**DOI:** <http://dx.doi.org/10.1016/j.molcata.2005.05.002>

Impact factor quartile: Q2

**8.** Martins, A.M.; Romão, C.C.; Abrantes, M.; Azevedo, M.C.; Cui, J.; Dias, A.R.; Duarte, M.T.; Lemos, M.A.; Lorenço, T.; Poli, R. "Mononuclear and Binuclear Cyclopentadienyl Oxo Molybdenum and Tungsten Complexes: Synthesis and Applications in Olefin Epoxidation Catalysis" *Organometallics* **2005**, 24, 2582-2589.

**DOI:** <http://dx.doi.org/10.1021/om049107b>

Impact factor quartile: Q1

**7.** Kühn, F. E; Zhao, J.; Abrantes, M; Sun, W.; Afonso, C. A. M.; Branco, L. C.; Gonçalves, I. S.; Pillinger, M.; Romão, C. C. "Catalytic olefin epoxidation with (cyclopentadienyl) molybdenum complexes in room-temperature ionic liquids" *Tetrahedron Lett.* **2005**, 46, 47-52.

**DOI:** <http://dx.doi.org/10.1016/j.tetlet.2004.11.029>

Impact factor quartile: Q2

**6.** Valente, A.V.; Seixas, J.D.; Gonçalves, I. S.; Abrantes, M.; Pillinger, M.; Romão, C.C. "CpMo(CO)<sub>3</sub>Cl as a precatalyst for the epoxidation of olefins" *Catal. Letters*, **2005**, 101, 127-130.

**DOI:** <http://dx.doi.org/10.1007/s10562-004-3760-y>

Impact factor quartile: Q2

**5.** Abrantes, M.; Gago, S.; Valente, A.; Pillinger, M.; Gonçalves, I. S.; Santos, T.M.; Rocha, J.; Romão, C. C. "Incorporation of a (Cyclopentadienyl)molybdenum oxo complex in MCM-41 and its use as a catalyst for

olefin epoxidation" *Eur. J. Inorg. Chem.*, **2004**, 4914-4920.

DOI: <http://dx.doi.org/10.1002/ejic.200400386>

Impact factor quartile: Q2

4. Abrantes, M.; Santos, A. M.; Mink, J.; Kühn, F.E.; Romão, C.C. " A simple entry to ( $\eta^5$ -C<sub>5</sub>R<sub>5</sub>)chlorodioxomolybdenum (VI) complexes (R=H, CH<sub>3</sub>, CH<sub>2</sub>Ph) and their use as olefin epoxidation catalysts" *Organometallics*, **2003**, 22, 2112-2118.

DOI: <http://dx.doi.org/10.1021/om0300023>

Impact factor quartile: Q1

3. Abrantes, M.; Valente, A.; Pillinger, M.; Gonçalves, I. S.; Rocha, J.; Romão, C. C. "Preparation and characterization of organotin-oxomolybdate coordination polymers and their use in sulfoxidation catalysis" *Chem. Eur. J.* **2003**, 9, 2685-2695.

DOI: <http://dx.doi.org/10.1002/chem.200204399>

Impact factor quartile: Q1

2. Abrantes, M.; Valente, A.; Pillinger, M.; Gonçalves, I. S.; Rocha, J.; Romão, C. C. "Epoxidation of olefins catalyzed by molybdenum-siloxane compounds" *Inorg. Chem. Comm.* **2002**, 5, 1069-1072.

DOI: [http://dx.doi.org/10.1016/S1387-7003\(02\)00642-1](http://dx.doi.org/10.1016/S1387-7003(02)00642-1)

Impact factor quartile: Q2

1. Abrantes, M.; Valente, A.; Pillinger, M.; Gonçalves, I. S.; Rocha, J.; Romão, C. C. "Organotin-oxometalate coordination polymers as catalysts for the epoxidation of olefins" *J. Catal.* **2002**, 209, 237-244.

DOI: <http://dx.doi.org/10.1006/jcat.2002.3619>

Impact factor quartile: Q1

### Articles in Refereed National Journals

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Luzyanin, K.; Abrantes, M. "Ressonância Magnética Nuclear – Ferramenta Versátil em Química Farmacêutica e Imagiologia Médica" *Revista da Sociedade Portuguesa de Química*, **2010**, 117, 25-30.

### Books - Contribution to Encyclopedia Keywords

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B. Cornils, W.A. Hermann, M. Muhler, C.-H. Wong, in *Catalysis from A to Z: A Concise Encyclopedia*, Wiley-VCH, 3rd ed., Weinheim, **2007**.

### Oral Presentations in Scientific Meetings – chronological

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1. Abrantes, M.; Gonçalves, I. S.; Romão, C. C.; Valente, A. (2001). Organometallic oxides of Sn and Mo in Olefin Epoxidation. COST D12-Meeting: Olefins as Feedstocks for Fine Chemicals: Towards Highly Selective Catalytic Olefin Conversions. Estrasburgo.

2. Abrantes, M.; Santos, A. M.; Mink, J.; Kühn, F.E.; Romão, C.C. (2003). ( $\eta^5$ -C<sub>5</sub>R<sub>5</sub>)Chlorodioxomolybdenum(VI)complexes (R=H,CH<sub>3</sub>,CH<sub>2</sub>Ph): Synthesis and Use as Olefin Epoxidation Catalysts. VI Encontro de Catálise e Materiais Porosos da Sociedade Portuguesa de Química. Évora.
3. Abrantes, M.; Santos, A. M.; Mink, J.; Kühn, F.E.; Romão, C.C. (2003). ( $\eta^5$ -C<sub>5</sub>R<sub>5</sub>)Chlorodioxomolybdenum(VI)complexes (R=H,CH<sub>3</sub>,CH<sub>2</sub>Ph): Synthesis and Use as Olefin Epoxidation Catalysts. 7<sup>th</sup> FIGIPAS, International Meeting in Inorganic Chemistry. Lisboa.
4. Kühn, F. E; Zhao, J.; Abrantes, M.; Sun, W.; Afonso, C. A. M.; Branco, L. C.; Gonçalves, I. S.; Pillinger, M.; Romão, C. C. (2005). Catalytic Olefin Epoxidation with Cyclopentadienyl Molybdenum Complexes in Room Temperature Ionic Liquids. VI Conferência de Química Inorgânica. Funchal.
5. Abrantes, M.; Almeida Paz, F.A.; Valente, A.A.; Pereira, C.C.L.; Gago, S.; Rodrigues, A.E.; Klinowski, J.; Pillinger, M.; Gonçalves, I.S. (2009) Amino Acid-Functionalized CpMo(CO)<sub>3</sub>Me Complex and its Use in Catalytic Olefin Epoxidation. 10th FIGIPAS International Meeting in Inorganic Chemistry. Palermo.
6. Abrantes, M.; Amarantes, T.R.; Antunes, M.M.; Gago, S.; Almeida Paz, F.A.; Margiolaki, I.; Rodrigues, A.E.; Pillinger, M.; Valente, A.A.; Gonçalves, I.S. (2010) Synthesis, Structure, and Catalytic Performance in Cyclooctene Epoxidation of a Molybdenum VI Oxide/Bipyridine Hybrid Material. COGICO-9. Florence.
7. Abrantes, M.; Amarantes, T.R.; Antunes, M.M.; Gago, S.; Almeida Paz, F.A.; Margiolaki, I.; Rodrigues, A.E.; Pillinger, M.; Valente, A.A.; Gonçalves, I.S. (2011) Synthesis, Structure, and Catalytic Performance in Cyclooctene Epoxidation of a Molybdenum VI Oxide/Bipyridine Hybrid Material. XXII Encontro Nacional da SPQ. Braga.
8. Abrantes, M.; Gonçalves, I. S.; Pillinger, M.; Vurchio, C.; Cordero, F.M.; Brandi, A. (2012) Molybdenum Oxide/Bipyridine Hybrid Material {[MoO<sub>3</sub>(bipy)][MoO<sub>3</sub>(H<sub>2</sub>O)]}<sub>n</sub> as Catalyst for the Oxidation of Secondary Amines to Nitrones. XXV International Conference on Organometallic Chemistry. Lisbon.

### Invited Lectures - chronological

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1. Abrantes, M. (2008). New Catalysts for the Synthesis of High Value Added Epoxides. ITQB Alumni Seminars, Instituto de Tecnologia Química e Biológica. Oeiras. Portugal.
2. Abrantes, M. (2010). Oxo complexos de Molibdénio(VI):Catalisadores versáteis para epoxidação. Ciclo de Conferências 2010 do Centro de Química de Évora. Évora. Portugal.

## Posters in Scientific Meetings – chronological

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1. Abrantes, M.; Gonçalves, I. S.; Romão, C. C.; Valente, A. (2001). Organometallic oxides of Sn and Mo as oxidation catalysts. 3<sup>rd</sup> International School of Organometallics. Camerino.
2. Abrantes, M.; Valente, A.; Pillinger, M.; Gonçalves, I. S.; Romão, C. C.(2002). Organotin-Oxometalate Coordination Polymers as Catalysts for the Epoxidation of Olefins. XVIII Encontro Nacional da Sociedade Portuguesa de Química. Aveiro.
3. Abrantes, M.; Valente, A.; Pillinger, M.; Gonçalves, I. S.; Romão, C. C.(2002). Organotin-Oxometalate Coordination Polymers as Catalysts for the epoxidation of Olefins. XXXV<sup>th</sup> International Conference on Coordination Chemistry. Heidelberg.
4. Petrovski, Z.; Abrantes, M.; Gonçalves, I. S.; Royo, B.; Romão, C. C. (2003) Investigation of reactivity of some novel 1,4,7-triazacyclononane and 1,1,1-tris(aminomethyl)ethane complexes in catalysis of alkene epoxidation. 7th FGIPS Meeting in Inorganic Chemistry. Lisboa.
5. Petrovski, Z.; Abrantes, M.; Gonçalves, I. S.; Royo, B.; Romão, C. C. (2003) Investigation of reactivity of some novel 1,4,7-triazacyclononane and 1,1,1-tris(aminomethyl)ethane complexes in catalysis of alkene epoxidation. FEChem Conference on Organometallic Chemistry. Zurich.
6. Abrantes, M.; Brito Palma, F.M.S.; Pedras, B.; Quintino, D.; Romão, C. C.(2004). Preparação de N-Óxidos por Oxidação Directa de Piridinas. Congresso da Sociedade Portuguesa de Química. Coimbra.
7. Lourenço, T.; Abrantes, M.; Romão, C. C. (2005). Organometallic Oxides of Molybdenum as Catalysts for Sulfone Synthesis. VI Conferência de Química Inorgânica. Funchal.
8. Gago, S.; Abrantes, M.; Valente, A.; Pillinger, M.; Rocha, J.; Santos, T.M.; Romão, C. C.; Gonçalves, I. S. (2005). Organometallic Oxides of Molybdenum as Catalysts for Sulfone Synthesis. VI Conferência de Química Inorgânica. Funchal.
9. Monteiro, B.; Bruno, S.M.; Pedro, F.; Abrantes, Balula, M.S.; M.; Valente, A.; Pillinger, M.; Ribeiro-Claro, P.; Kühn, F.E.; Gonçalves, I.S. (2006). New chiral oxazoline dioxomolybdenum(VI) complexes: Synthesis and catalytic properties in olefin epoxidation. XXII International Conference on Organometallic Chemistry, ICOMC. Zaragoza.
10. Abrantes, M.; Balula, M.S.; Valente, A.A.; Paz, F.A.A.; Pillinger, M.; Romão, C.C.; Rocha, J.; Gonçalves, I.S. (2006). Oxidation of olefins and alcohols with polymeric organotin vanadate catalysts. XX Encontro Nacional da SPQ, FCT/UNL. Monte da Caparica.
11. Abrantes, M.; Balula, M.S.; Valente, A.A.; Paz, F.A.A.; Pillinger, M.; Romão, C.C.; Rocha, J.; Gonçalves, I.S. (2006). Oxidation of olefins and alcohols with polymeric organotin vanadate catalysts. IVas Jornadas CICECO. Aveiro.



12. Abrantes, M.; Valente, A.A.; Pillinger, M.; Romão, C.C.; Gonçalves, I.S. (2008) Synthesis, characterization and catalytic application of a chiral menthylidimethyltin molybdate. XXI Encontro Nacional da SPQ. Porto.
13. Abrantes, M.; Valente, A.A.; Pillinger, M.; Romão, C.C.; Gonçalves, I.S. (2008) Synthesis, characterization and catalytic application of a chiral menthylidimethyltin molybdate. 20<sup>th</sup> International Symposium on Chirality. Geneva.
14. Amarante, T.R.; Abrantes, M.; Paz, F.A.A.; Pillinger, M.; Gonçalves, I.S. (2009) Microwave assisted synthesis of one dimensional molybdenum polymeric compounds. VI Jornadas do CICECO. Aveiro.
15. Amarantes, T.R.; Abrantes, M.; Antunes, M.M.; Gago, S.; Pillinger, M.; Valente, A.A.; Gonçalves, I.S. (2010) Synthesis, Structure, and Catalytic Performance in Cyclooctene Epoxidation of a Molybdenum Oxide/Bipyridine Hybrid Material. MOLMAT2010. Montpellier.
16. Abrantes, M.; Neves, P., Antunes, M.M.; Gago, S.; Almeida Paz, F.A.; Rodrigues, A.E.; Pillinger, M.; Gonçalves, I.S.; Silva, C.M.; Valente, A.A. (2010) 3<sup>rd</sup> EuCheMS Chemistry Congress. Nuremberg.
17. Abrantes, M.; Neves, P., Antunes, M.M.; Gago, S.; Almeida Paz, F.A.; Rodrigues, A.E.; Pillinger, M.; Gonçalves, I.S.; Silva, C.M.; Valente, A.A. (2010) Microwave-Assisted Molybdenum-Catalysed Epoxidation of Olefins. Cost D-40 Meeting: Innovative Catalysis: New Processes and Selectivities. Ankara.
18. Amarantes, T.R.; Abrantes, M.; Almeida Paz, F.A.; Gonçalves, I.S. (2011) Synthesis and Structure of Mo<sup>VI</sup> Oxide Polynuclear Complexes for Potential Catalytic Applications in Olefin Epoxidation. VIII Jornadas do CICECO. Aveiro.
19. Amarantes, T.R.; Abrantes, M.; Almeida Paz, F.A.; Gonçalves, I.S. (2011) Synthesis and Structure of Mo<sup>VI</sup> Oxide Polynuclear Complexes for Potential Catalytic Applications in Olefin Epoxidation. XXII Encontro Nacional da SPQ. Braga.
20. Amarantes, T.R.; Abrantes, M.; Almeida Paz, F.A.; Gonçalves, I.S. (2011) Molybdenum Oxide/Bipyridine Hybrid Materials: Synthesis, Structure and Catalytic Studies. XXII Congress and General Assembly of the International Union of Crystallography. Madrid.
21. Amarantes, T.R.; Abrantes, M.; Antunes, M.M.; Gago, S.; Valente, A.A.; Gonçalves, I.S. (2011) Synthesis, Structure and Catalytic Performance in Cyclooctene Epoxidation of a Molybdenum Oxide/Bipyridine Hybrid Material. European Congress on Advanced Materials and Processes. Montpellier.
22. Amarantes, T.R.; Abrantes, M.; Antunes, M.M.; Gago, S.; Almeida Paz, F.A.; Pillinger, M.; Valente, A.A.; Gonçalves, I.S. (2012) Molybdenum Oxide/Bipyridine Hybrid Materials: Synthesis, Structure and Catalytic Studies. 1<sup>st</sup> Meeting of Synchrotron Radiation Users from Portugal. Caparica.

23. Tomé, C.; Abrantes, M.; Bruno, S.M.; Pillinger, M.; Gonçalves, I.S.; Valente, A.A. (2012) Indenyl Molybdenum(II) Tricarbonyl Complex as a Catalyst Precursor for Selective Epoxidation of DL-limonene. IX CICECO Meeting. Aveiro.
24. P. Neves, P.; Amarante, T. R.; Tomé, C.; Abrantes, M.; Almeida Paz, F.A.; Pillinger, M.; Gonçalves, I.S.; Valente, A.A. (2012) Catalytic Epoxidation of Bio-derived Olefins in the Presence of an Octanuclear Molybdenum(VI) Complex. XXV International Conference on Organometallic Chemistry. Lisbon.
25. Tomé, C.; Abrantes, M.; Bruno, S.M.; Pillinger, M.; Gonçalves, I.S.; Valente, A.A. (2012) Indenyl Molybdenum(II) Tricarbonyl Complex as a Catalyst Precursor for Selective Epoxidation of DL-limonene. XXV International Conference on Organometallic Chemistry. Lisbon.
26. Bruno, S.M.; Pillinger, M.; Gonçalves, I.S.; Valente, A.A.; Abrantes, M.; Tomé, C.; (2012) Indenyl molybdenum(II) tricarbonyl complex as a catalyst precursor for selective epoxidation of DL-limonene. 15<sup>th</sup> International Congress on Catalysis 2012. Munich.
27. Gomes, A. C.; Bruno, S. M.; Gamelas, C. A.; Valente, A. A.; Abrantes, M.; Gonçalves, I. S.; Romão, C. C.; Pillinger, M. (2014) Intercalation of a molybdenum  $\eta^3$ -allyl dicarbonyl complex in a layered double hydroxide and catalytic performance in olefin epoxidation. 10<sup>a</sup> Conferência de Química Inorgânica da SPQ. Caparica.

## ii) Coordination and participation in scientific projects

### Funded Scientific Projects

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- 2007 Principal Researcher in Project PTDC/QUI/65247/2006 awarded by Fundação para a Ciência e Tecnologia (Portuguese Science Foundation); Main Research Area: Chemistry
- Title: Synthesis of high value epoxides mediated by cyclopentadienyl molybdenum catalysts optimized by parallel synthesis
- Total funding: 75400 Euros; Value transferred to IST: 70 693.72 Euros; Duration: 2008-2011
- Team: Coordinator, Post-doc fellow, and junior research fellow.

### Participation in Scientific Networks

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- 2008-2011 Member of the Management Committee of Action COST D40 - Innovative Catalysis: New Processes and Selectivities.

## iii) Accompaniment and orientation of students, trainees and research fellows:

### Supervision of Master Thesis

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- 2015 Title: Estudo de um sistema de armazenamento térmico com transição de fase

Pedro Daniel Resende e Silva

Thesis done in collaboration with the industrial partner Cofely - GDF Suez (<http://www.cofely-gdfsuez.pt/>)

Role: Co-supervisor; Supervisor: Professor Maria Amélia Nortadas Duarte de Almeida Lemos

External supervisor (from Cofely - GDF Suez/ClimaEspaço): Miguel Marques da Silva

### Student Supervision with Funding

Illakia Sireetharan	Bsc student	Summer 2011	Programa Atlântico (Exchange Program Université Pierre e Marie Curie, Paris)
Carine Tuong	Bsc student	Summer 2011	Programa Atlântico (Exchange Program Université Pierre e Marie Curie, Paris)
Shardene Mbenoun	Bsc student	Summer 2012	Programa Atlântico (Exchange Program Université Pierre e Marie Curie, Paris)
Cátia Tomé	PhD student	April 2011- September 2012	FCT project fellowship FCT fellowship SFRH/BD/90289/2012
Ana Costa Gomes	Pos-doc fellow	Sept. 2011-Dez. 2011	FCT project fellowship
Irene Tosi	Master student	March 2013-Aug. 2013	Erasmus master student
Patrique Nunes	Research fellow	Dec. 2013- Ago. 2014	Strategic funding (PEst) fellowship

### Long Term Funded Student Supervision

2012	Supervisor of Cátia Martin Tomé in PhD fellowship SFRH/BD/90289/2012. Co-supervisor: Prof. Isabel Gonçalves, Univ. Aveiro. Main Research Area: Chemistry Title: Molybdenum Oxide Based Hybrids for the Synthesis of High Value Added Molecule
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### Participation in Thesis Comities - chronological

Dec. 2009:	Master Thesis, "Design de Novos Catalisadores Oxometálicos", Tatiana Ribau Amarante, Departamento de Engenharia Cerâmica e do Vidro, Universidade de Aveiro.
Oct. 2010:	PhD Thesis, "Novos Sistemas Catalíticos Baseados em Óxidos de Metais de Transição", Ana Catarina Dias Martins Coelho, Departamento de Engenharia Cerâmica e do Vidro, Universidade de Aveiro.
Feb. 2011:	PhD Thesis, "Catalisadores ou precursores de espécies activas à base de molibdénio", Patrícia dos Santos Neves, Departamento de Engenharia Cerâmica e

do Vidro, Universidade de Aveiro.

June 2013

PhD Thesis, “Design de compostos oxometálicos e estudo das suas propriedades catalíticas em reacções de oxidação”, Sónia Mafalda Ferreira Figueiredo, Departamento de Química e Farmácia, Universidade do Algarve.

Dec. 2013

PhD Thesis, “Novos materiais híbridos de molibdénio”, Tatiana Ribau Amarante, Departamento de Química e Farmácia, Universidade de Aveiro.