



CURRICULUM VITAE

Ana Maria Loureiro da Seca

August - 2018

PERSONAL DATA

Full name	Ana Maria Loureiro da Seca Seca, A.M.L.
Name under which you publish	Seca, A. Da Seca, A. M. L.
Birth date	20-07-1969
Nationality	Portuguese
Work address	University of Azores Rua Mãe de Deus 9501-801 Ponta Delgada Portugal
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Research Identifiers	

ACADEMIC DEGREES

From Mars of 1995 to January of 2000	PhD on Chemistry University of Aveiro Thesis title: "Kenaf (<i>Hibiscus cannabinus</i>): extracção e caracterização estrutural de constituintes alifáticos, fenólicos simples e macromoleculares" Supervision: Profs J. A. S. Cavaleiro and Carlos Pascoal-Neto
From September of 1992 to April of 1994	Master degree on Science and Technology of Pulp and Forest Products

University of Aveiro
Thesis title: "HPLC e produtos de oxidação de lenhinas pelo nitrobenzeno"
Supervision: Prof J. A. S. Cavaleiro
From October of 1987 to July of 1991 Degree on Chemistry – Analytical Chemistry
University of Aveiro (4-years study).

PROFESSIONAL POSITIONS

From September of 2011 Assistant Professor
Teaching: General chemistry; Biochemistry; Natural Product and Health
University of Azores

From November of 2009 to August of 2011 Invited Professor
Teaching: Medicinal organic chemistry; Chemistry; Bioorganic chemistry
University of Aveiro

From February of 2000 to August of 2009 Assistant Professor
Teaching: Analytical chemistry; Methods on instrumental analysis; Biochemistry
University of Azores

From Mars of 1999 to January of 2000 Instructor
Teaching: Analytical chemistry
University of Azores

From April of 1994 to August of 1994 Graduate teaching assistant
Teaching: Chemistry
University of Aveiro

From September of 1994 to February of 1995 and Teacher
Teaching: Mathematic; Physic-chemistry

from September of 1991 to Middle school
August 1992

RESEARCH ACTIVITY

PRESENT RESEARCH INTEREST Chemistry of natural compounds:

- Extraction and characterization of natural compounds from terrestrial and marine species with potential biologic activity;
- To develop added value for natural products obtained from species of the Azores;
- New routes for the synthesis of analogues natural compounds with potential pharmacological applications.

RESEARCH PROJECTS MACBIOBLUE – Demonstration and technology transfer project to help companies develop new products and processes in the field of Blue Biotechnology of Macaronesia. European Commission, INTERREG (Bruxels, Belgium) 2016-11 to 2019, MAC/1.1b/086

ASPAZOR - Ecosystem impacts and socioeconomic benefits of *Asparagopsis armata* in the Azores Regional Direction for Science, Technology (Ponta Delgada, Azores, Portugal) 2016-11 to 2019-10, ACORES-01 -0145-FEDER-000060

AZOALG - Bioactive products in marine algae of Azores, Fundação para a Ciência e a Tecnologia, I.P. (Lisbon, Portugal) 2010-06 to 2013-11, Grant: PTDC/MAR/100482/2008.

PUBLICATIONS

Dissertations

- "Kenaf (*Hibiscus cannabinus*): Extraction and structural characterization of aliphatic and phenolic (small molecules and macromolecules) constituents", PhD thesis, University of Aveiro, 2000
- "HPLC and products of lignin nitrobenzene oxidation", MSc Thesis, University of Aveiro, 1994

Book Chapters 8- Pinto, D. C. G. A.; Seca, A. M. L.; Cardoso, S. M.; Silva, A. M. S. (2018). "Seaweed metabolites with benefit effects against cardiovascular diseases" in: Seaweed Bioactives: Health Benefits and Potential Applications, A. Jaiswal (Ed.). Nutraceuticals: Basic Research/Clinical Applications Series, CRC Press, Boca Raton, Florida, USA (ISBN: 978-1-4987-9698-9), Vol 1, chapter 15. *in press*.

7- Pinto, D. C. G. A.; Seca, A. M. L.; Silva, A. M. S. 2017. Insight

approaches of medicinal plants for the discovery of anticancer drugs. in: Anticancer Plants Clinical Trials and Nanotechnology, M. S. Akhtar and M. K. Swamy (Eds.), Springer Verlag, Singapore. Vol 3, chapter 4. pg. 105-151. doi: 10.1007/978-981-10-8216-0

6- Ferreira, D.; Pinto, D. C. G. A.; Silva, A. M. S.; Seca, A. M. L. (2017). "Olea europaea: Facts and myths regarding cardiovascular health" in Herbal Medicine: Back to the Future, F. Atta-ur-Rahman, F. Murad and K. Bian (Ed.), Bentham Science Publishers, Vol 1, chapter 3, pg. 57-128. doi: 10.2174/97816810848931170101

5- Seca, A. M. L.; Silva, A. M. S.; Pinto, D. C. G. A. (2017). "Parthenolide and parthenolide-like sesquiterpene lactones as multiple targets drugs: current knowledge and new developments" in: Studies in Natural Products Chemistry (Bioactive Natural Products), Atta-Ur-Rahman (Ed.). Elsevier Science Publishers - Amsterdam, The Netherlands. Vol 52. Chapter 9, pg. 337-372.

4-Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. (2015), "The Current Status of Bioactive Metabolites from the Genus *Juniperus*" in: Bioactive Phytochemicals: Perspectives for Modern Medicine. V. K. Gupta (Ed.) Vol. 3. M/S Daya Publishing House, New Delhi. Chapter 15, pg. 365- 408.

3- Isca, V. M. S.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. (2014), "An overview of *Salicornia* genus: the phytochemical and pharmacological profile" in: Natural Products: Research Review, Vol 2., Daya Publishing House, New Delhi. Chapter 7, pg 145-164.

2- Seca A.M.L., Silva A.M.S. (2006), "The chemical composition of the genus *Juniperus* (1970-2004)" in: Recent Progress in Medicinal Plants, Vol 16- Phytomedicines, Govil J.N. and Singh V.K. (Ed.), Studium Press, LLC Texas, Cap 20, pg. 401-522.

1- Silva, A.M.S.; Seca, A.M.L.; Vasconcelos, J.M.J.; Cavaleiro, J.A.S.; Silvestre, A.J.D.; Domingues, F.M.J.; Pascoal-Neto, C. (2002). "Chemical Composition of *Artemisia campestris* and *Hibiscus cannabinus*" in: Natural products in the new millennium: prospects and industrial application, A.P. Rauter et al. Eds, Kluwer Academic Publishers, Netherlands, pg. 47-57.

- Papers**
- 38- Rosa, G. P.; Barreto, M. C.; Seca, A. M. L. 2018. Pharmacological effects of *Fucus spiralis* extracts and phytochemicals: a comprehensive review. Bot. Mar. (Submitted). (IF2017: 0.989; Q3 Marine & Freshwater Biology).
- 37- Tavares, W. R.; Seca, A. M. L. 2018. The current status of pharmaceutical potential of *Juniperus* L. metabolites. Medicines 5(3), 1-24. Article number 81. doi: 10.3390/medicines5030081. (Indexed in

Pubmed).

- 36- Seca, A. M. L.; Gouveia, V. L. M.; Barreto, C.; Silva, A. M. S.; Pinto, D. C. G. A. **2018**. Comparative study by GC-MS and chemometrics on the chemical and nutritional profile of *Fucus spiralis* L. juvenile and mature life-cycle phases. J. Appl. Phycol. 30(4), 2539-2548. doi: 10.1007/s10811-018-1447-9. (IF2017: 2.616; Q1 Marine & Freshwater Biology).
- 35- Seca, A. M. L.; Pinto, D. C. G. A. **2018**. Overview on the antihypertensive and anti-obesity effects of secondary metabolites from seaweeds. Mar. Drugs. 16(7), 1-18. Article number 237. doi:10.3390/md16070237. (IF2017: 4.379; Q1 Chemistry medicinal).
- 34- Seca, A. M. L.; Pinto, D. C. G. A. **2018**. Plant secondary metabolites as anticancer agents: Successes in clinical trials and therapeutic application. Int. J. Mol. Sci. 19(1), 1-22. Article number 263. doi: 10.3390/ijms19010263. (IF2016: 3.226; Q2 Chemistry, multidisciplinary).
- 33- Ferreira, D.; Isca, V. M. S.; Leal, P.; Seca, A. M. L.; Silva, H.; Pereira, M. L. Silva, A. M. S.; Pinto, D. C. G. A. **2018**. *Salicornia ramosissima*: Secondary metabolites and protective effect against acute testicular toxicity. Arabian J. Chem. 11(1), 70–80. doi: 10.1016/j.arabjc.2016.04.012 (IF2016: 4,553; Q1 Chemistry, multidisciplinary)
- 32- Rosa, G. P.; Seca, A. M. L.; Barreto, M. C.; Pinto, D. C. G. A. **2017**. Chalcone: A valuable scaffold upgrading by green methods. ACS Sustainable Chem. Eng. 5, 7467–7480. doi: 10.1021/acssuschemeng.7b01687 (IF: 2016 5.951; Q1 Green & Sustainable Science & Technology)
- 31- Faustino, M.; Seca, A. M. L.; Silveira, P.; Silva, A. M. S.; Pinto, D. C. G. A. **2017**. Gas chromatography–mass spectrometry profile of four *Calendula* L. taxa: A comparative analysis. Ind. Crop. Prod. 104, 91-98. <http://dx.doi.org/10.1016/j.indcrop.2017.04.029> (IF2015: 3.449; Q1 Agronomy)
- 30- Ferreira, D.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. **2016**. Targeting human pathogenic bacteria by siderophores: A proteomics review. J. Proteomics. 145, 153-166. 10.1016/j.jprot.2016.04.006. (IF2015: 3.867, Q1 Biochemical research methods)
- 29- Cardoso, S. M.; Pereira, O. R.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. **2015**. Seaweeds as preventive agents for cardiovascular diseases: from nutrients to functional foods. Marine Drugs, 13, 6838-6865. doi: 10.3390/md13116838. (IF2015: 3.345, Q1 Chemistry)

- 28- Silva, B.; Seca, A. M. L.; Barreto, M. C.; Pinto, D. C. G. A. **2015**. Recent breakthroughs in the antioxidant and anti-Inflammatory effects of *Morella* and *Myrica* species", Int. J. Mol. Sci. 16, 17160 - 17180. doi: 10.3390/ijms160817160. (IF2015: 3.257, Q2 Chemistry)
- 27- Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. **2015**. Metabolomic profile of the genus *Inula*. Chem. Biodiver. 12, 859 - 906. doi: 10.1002/cbdv.201400080. (IF2015: 1.444. Q3 Chemistry)
- 26- Isca, V. M. S.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, H.; Silva, A. M. S. **2015**. Saliramophenol, an unprecedented natural *t*-butylphenol derivative from *Salicornia ramosissima* J. Woods, RSC Adv. 75, 61380 - 61382. doi: 10.1039/C5RA10893D. (IF2015: 3.289; Q2 Chemistry)
- 25- Oliveira, N.; Medeiros, S.; Rosa, J. S.; Barreto, M. C.; Seca, A. M. L. **2015**. Anti-acetylcholinesterasic, antioxidant and antibacterial activities of *Juniperus brevifolia* extracts. Integr. Pharm. Toxicol. Genotoxicol. 1, 57 - 60. doi: 10.15761/IPTG.1000111
- 24- Isca, V. M.S.; Seca, A. M. L.; Pinto, D. C. G.; Silva, H.; Silva, A. M. S. **2014**. Lipophilic profile of the edible halophyte *Salicornia ramosissima*. Food Chem. 165, 330 - 336. doi: 10.1016/j.foodchem.2014.05.117. (IF2015: 4.052, Q1 Applied chemistry)
- 23- Seca, A. M. L.; Grigore, A.; Pinto, D. C. G. A.; Silva, A. M. S. **2014**. The genus *Inula* and their metabolites: From ethnopharmacological to medicinal uses. J. Ethnopharmacol. 154, 286 - 310. doi: 10.1016/j.jep.2014.04.010. (IF2015: 3.055, Q1 Plant science)
- 22- Seca, A. M. L.; Leal, S.; Pinto, D. C. G.; Barreto, M. C.; Silva, A. M. S. **2014**. Xanthenedione Derivatives, New Promising Antioxidant and Acetylcholinesterase Inhibitor Agents. Molecules 19, 8317 - 8333. doi: 10.3390/molecules19068317. (IF2015: 2.465, Q2 Chemistry)
- 21- Gouveia, V.; Seca, A. M. L.; Barreto, M. C.; Pinto, D. C. G. A. **2013**. Di- and sesquiterpenoids from *Cystoseira* genus: structure, intra-molecular transformations and biological activity. Mini-Rev. Med. Chem. 13, 1150-1159. (IF2015: 2.841, Q2 Medicinal chemistry)
- 20- Gouveia, V.; Seca, A. M. L.; Barreto, M. C.; Neto, A.; Kijjoa, A.; Silva, A.M. S. **2013**. Cytotoxic meroterpenoids from *Cystoseira abies-marina*. Phytochemistry Lett., 6, 593-597. (IF2015: 1.353, Q2 Plant Science)
- 19- Silva, M.; Vieira, L. M.; Almeida, A. P.; Silva, A. M. S.; Seca, A. M. L.; Barreto, M. C.; Neto, A. I.; Pedro, M.; Pinto, E.; Kijjoa, A. Chemical study and biological activity evaluation of two Azorean Macroalgae: *Ulva rigida* and *Gelidium microdon*. Oceanography: open access **2013**, 1, 102 - 109. doi: 10.4172/2332-2632.1000102
- 18- Barreto, M. C.; Mendonça, E.; Gouveia, V.; Anjos, C.; Medeiros, J. S.;

- Seca, A. M. L.; Neto, A. I. M. A. **2012**. Macroalgae from S. Miguel Island as a potential source of antiproliferative and antioxidant products. *Arquipelago: Life and Marine Sciences*, 29, 53 - 58.
- 17- Pinto, D. C. G. A.; Seca, A. M. L.; Leal, S. B.; Silva, A. M. S.; Cavaleiro, J. A. S. **2011**. A Novel Short-step Synthesis of New Xanthenedione Derivatives from the Cyclization of 3-Cinnamoyl-2-styrylchromones. *Synlett*, 14, 2005-2008. (IF2015: 2.323, Q2 Organic Chemistry)
- 16- Moujir, L. M.; Seca, A. M. L.; Araujo, L.; Silva, A. M. S.; Barreto, M. C. **2011**. A new natural spiro heterocyclic compound and the cytotoxic activity of the secondary metabolites from *Juniperus brevifolia* leaves. *Fitoterapia*, 82, 225-229. (IF2015: 2.408, Q3 Medicinal chemistry)
- 15- Seca, A. M. L.; Silva, A. M. S. **2010**. A new 4',7-epoxy-8,3'-oxyneolignan from acetone extract of *Juniperus brevifolia* leaves. *Phytochem. Lett.* 3, 126-128. (IF2015: 1.353, Q2 Plant Science)
- 14- Moujir, L. M.; Seca, A. M. L.; Silva, A. M. S.; Barreto, M. C. **2008**. Cytotoxic activity of diterpenes and extracts of *Juniperus brevifolia*. *Planta Med.*, 74, 751-753. (IF2015: 1.990, Q3 Medicinal chemistry)
- 13- Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. **2008**. Structural elucidation of pimarane and isopimarane diterpenoids: The ¹³C NMR contribution. *Nat. Prod. Comm.*, 3, 399-412. (IF2015: 0.884, Q4 Chemistry)
- 12- Seca, A. M. L.; Silva, A. M. S.; Bazzocchi, I. L.; Jimenez, I. A. **2008**. Diterpene composition of leaves from *Juniperus brevifolia*. *Phytochemistry*, 69, 498-505. (IF2015: 2.779, Q1 Plant Science)
- 11- Seca, A. M. L.; Silva, A. M. S. **2008**. The chemical constituents of hexane extract from bark of *Juniperus brevifolia*. *Nat. Prod. Res.*, 22, 975-983. (IF2015: 1.057, Q3 Applied chemistry)
- 10- Moujir, L.; Seca, A. M. L.; Silva, A. M. S.; López, M. R.; Padilla, N.; Cavaleiro, J. A. S.; Neto, C. P. **2007**. Cytotoxic activity of lignans from Kenaf (*Hibiscus cannabinus*). *Fitoterapia*, 78, 385-387. (IF2015: 2.408, Q3 Medicinal chemistry)
- 9- Seca, A. M. L.; Domingues, F. M. J. **2006**. Basic density and pulp yield relationship with some chemical parameters in Eucalyptus trees. *Brazilian J. Agric. Res.*, 41, 1687-1691. (IF2015: 0.564, Q3 Agriculture)
- 8- Seca, A. M. L.; Silva, A. M. S.; Silvestre, A. J. D.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Neto, C. P. **2001**. Lignanamide derivatives and other constituents from the bark of kenaf (*Hibiscus cannabinus*). *Phytochemistry* 58, 1219-1223. (IF2015: 2.779, Q1 Plant Science)
- 7- Seca, A. M. L.; Silva, A. M. S.; Silvestre, A. J. D.; Cavaleiro, J. A. S.;

- Domingues, F. M. J.; Neto, C. P. **2001**. Phenolic constituents from the core of kenaf (*Hibiscus cannabinus*). *Phytochemistry* 56, 759-767. (IF2015: 2.779, Q1 Plant Science)
- 6- Seca, A. M. L.; Silva, A. M. S.; Silvestre, A. J. D.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Neto, C. P. **2000**. Chemical Composition of light petroleum extract of *Hibiscus cannabinus* bark and core. *Phytochem. Anal.* 11, 345-350. (IF2015: 2.497, Q2 Analytical chemistry)
- 5- Seca, A. M. L.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Silvestre, A. J. D.; Evtuguin, D.; Pascoal-Neto, C. **2000**. Structural characterization of the lignin from nodes and internodes of *Arundo donax*. *J. Agric. Food Chem.* 48, 817-824. (IF2015: 2.857, Q1 Chemistry applied)
- 4- Seca, A. M. L.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Silvestre, A. J. D.; Evtuguin, D.; Pascoal-Neto, C. **1998**. Structural characterization of the bark and core lignins from kenaf (*Hibiscus cannabinus*). *J. Agric. Food Chem.* 46, 3100-3108. (IF2015: 2.857, Q1 Chemistry applied)
- 3- Pascoal-Neto, C. Seca, A.; Nunes, A. M.; Coimbra, M. A.; Domingues, F.; Evtuguin, D.; Silvestre, A.; Cavaleiro, J. A. S. **1997**. Variations in chemical composition and structure of macromolecular components in different morphological regions and maturity of *Arundo donax*. *Ind. Crops Prod.* 6, 51-58. (IF2015: 3.449, Q1 Agriculture Engineering)
- 2- Pascoal-Neto, C. Seca, A.; Fradinho, A.; Coimbra, M. A.; Domingues, F.; Evtuguin, D.; Silvestre, A.; Cavaleiro, J. A. S. **1996**. Chemical composition and structural features of the macromolecular components of *Hibiscus cannabinus* grown in Portugal. *Ind. Crops Prod.* 5, 189-196. (IF2015: 3.449, Q1 Agriculture Engineering)
- 1- Pascoal-Neto, C.; Cordeiro, N.; Seca, A.; Domingues, F.; Gandini, A.; Robert, D. **1996**. Isolation and characterization of lignin-like polymer of cork of *Quercus suber* L.", *Holzforschung.* 50, 563-568. (IF2015: 1.711, Q1 Material Science)

Proceedings

- 7- Silva, B. J. C., Barreto, M. C., Silva, A. M. S., Seca, A. M. L., *Morella faya* (Aiton) Wilbur leaves and bark: bioactivities and isolated compounds, 11th National Meeting of Organic Chemistry and 4th Meeting of Therapeutic Chemistry. *Pharmaceuticals* **2016**, 9, 30. P3. doi:10.3390/ph9010015 2015
- 6- Bettencourt, A., Pereira, J. M., Costa, A. C., Seca, A. M. L., Barreto, M. C., Antitumor activities of invasive alien species from the Azores, 11th National Meeting of Organic Chemistry and 4th Meeting of Therapeutic Chemistry. *Pharmaceuticals* **2016**, 9, 31-32. P6. doi:10.3390/ph9010015 2015.
- 5- Faustino, M.; Seca, A. M. L.; Silveira, P.; Pinto, D. C. G. A.

Determination and comparison of the chemical composition of *Calendula* L. species growing in Continental Portugal, 11th National Meeting of Organic Chemistry and 4th Meeting of Therapeutic Chemistry. Pharmaceuticals **2016**, 9, 40-41. doi:10.3390/ph9010015 2015.

- 4- Rodrigues, N.; Almeida, A.; Silva, H.; D. Pinto, D. C. G. A.; Seca, A. M. L.; Pereira, M. L.. Potential anti-inflammatory effects of *Artemisia gorgonum* on rat liver injury induced by CCl₄. Microsc. Microanal. **2016**, 22 (Suppl. 4), pp 26-27. doi:10.1017/S1431927616000325
- 3- Silva, B.; Seca, A. M. L.; Moreno-Rodriguez, L.; Barreto, M. C. Antioxidant and anticholinesterasic activities of *Morella faya* (Aiton) Wilbur extracts. 62th Annual Meeting of the Society for Medicinal Plant Research, Guimarães, Portugal, 31 Agosto a 4 Setembro de 2014. *Planta Medica*, **2014**, 80, 16, 1433-1433, P1L69, DOI: 10.1055/s-0034-1394726.
- 2- Ana M. L. Seca, Carlos Pascoal Neto, José A. S. Cavaleiro, Fernando M. J. Domingues, Armando J. D. Silvestre, Dmitry V. Evtuguin. Complementary structural information about kenaf bark and core lignins”, *Proceedings of 5th European Workshop on Lignocellulosics and Pulp: Advances in Lignocellulosics chemistry for ecologically friendly pulping and bleaching technologies*, **1998**, 349-352
- 1- Ana Seca, José Cavaleiro, Fernando Domingues, Armando Silvestre, Dmitry Evtuguin, Carlos Pascoal Neto. Structural characteristics of the bark and core kenaf lignin (variety Salvador). *Proceedings of 9th International Symposium on Wood and Pulping Chemistry*. **1997**, Vol 2, pp 131-132;

Oral communications More than 15 invited oral presentations in national and international scientific meetings.

Posters More than 95 posters in national and international meetings.

Languages English

Reading: Good

Writing: Good

Conversation: Good