MEDITERRANEAN JOURNAL OF CHEMISTRY

Curriculum Vitae

Maria Manuela Marques Raposo

Associate Professor with Habilitation

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Name: Maria Manuela Marques Raposo

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Academic formation:

Dec. 1987 - Oct. 1990 – Stagiary Assistant, Department of Chemistry, Faculty of Sciences and Technology, New University of Lisbon, Portugal

Nov. 1990 - Jan. 1992 – Stagiary Assistant, Department of Chemistry, University of Minho, Portugal

Jan. 1992 - Apr. 1996 – Assistant, Department of Chemistry, University of Minho, Portugal

Apr. 1996 - Assistant Professor, Department of Chemistry, University of Minho, Portugal

Apr. 2001 - Assistant Professor with Definitive Nomination, Department of Chemistry, University of Minho, Portugal

Jul. 2007 - Associate Professor, Department of Chemistry, University of Minho, Portugal

Nov. 2020 - Associate Professor with Habilitation, Department of Chemistry, University of Minho, Portugal

Scientific formation:

Degree on Applied Chemistry (Organic Synthesis speciallity), 1987 (14/20), New University of Lisbon, Faculty of Sciences and Technology, Portugal

“Provas de Aptidão Pedagógica e Capacidade Científica”, January of 1992 (Very Good), Department of Chemistry, University of Minho, Portugal

PhD. studies, April of 1996 (Distintion and Praise). Dissertation on “Synthesis studies on carbazoles and pyridocarbazoles”, Department of Chemistry, University of Minho, Portugal

Teaching expertise:

During the last 36 years M. M. M. Raposo has taught more than 30 subjects (experimental and theoretical) in several areas of chemistry (general, organic, spectroscopic techniques) for several levels of students: degree in: Chemistry, Physics, Applied Biology, etc. and MSc students (*e.g.* Medicinal Chemistry). In particular she is an expert in teaching organic chemistry subjects such as organic and heterocyclic chemistry (*e.g*. "Organic chemistry", "Chemical reactions", "Methods in organic chemistry", "Heterocycles: chemistry and applications" and "Heterocycles in medicinal chemistry", "Laboratory techniques in chemistry", "Topics of Structural Chemistry").

Most recent and representative university management activities

- Director of the Chemistry Centre (CQUM) October 2020 till October 2023.
- Member of the Scientific Council of the School of Sciences of the University of Minho from April 2016 to July 2019 and from October 2020 till the present date.
- Member of the Management Board of the School of Sciences of the University of Minho since October 2020 till October 2023.
- Member of the Pedagogical Council of the School of Sciences of the University of Minho from November 2017 till August 2019.
- Director of the Doctoral Course in Applied Chemistry from October 2017 till August 2021.
- Director of the Degree in Chemistry from January of 2017 till August 2019.
- Member of the Steering Committee for the Doctorate in Sciences since November 2012 till December 2019.
- Member of the Self-Assessment Committee for the Degree in Applied Chemistry of the Department of Chemistry of the School of Sciences of the University of Minho during 2019.
- Member of the Self-Assessment Committee for the Degree in Chemistry of the Department of Chemistry of the School of Sciences of the University of Minho during 2021.
- Member of the Scientific Commission of the School of Sciences (ECUM) of the University of Minho since December 2015.
- Member of the School Council, of the School of Sciences of the University of Minho, from January 2010 to September 2013.

- Member of the Steering Committee of the Master's Course in Chemistry (Specialization in Teaching) and of the Specialization Course in Chemistry Teaching from February 2005 to September 2007.

Identifiers in scientific publication indexing services:

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Scopus Author ID: 7005684062

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Present research interests:

- Synthesis and characterization of sulfur, nitrogen and oxygen heterocycles and heterocycle-based unnatural amino acid derivatives for several applications:
i) fluorescence probes and markers for bioimaging;

ii) photosensitizers for photodynamic therapy (PDT);

iii) near infrared (NIR) molecules for photoacoustic imaging (PAI);

iv) colorimetric and/or fluorimetric chemosensors of anions and cations and neutral molecules with potential analytical, environmental and medicinal relevance;

v) heterocycle and peptide-based systems for controlled drug delivery and monitoring of response to antitumor therapy;

vi) nonlinear optics: second harmonic generators (SHG) and two-photon absorption chromophores (TPA);

vii) molecular switches/photochromic materials;

viii) dye sensitized solar cells (DSSCs);

ix) organic light-emitting diodes (OLEDs);

x) ligands for catalysis.

M. M. M. Raposo (ISI authors search: Raposo MMM), is author of more than 140 publications, (*h*-index 37, citations: 4044; in ISI Web of Science and 4184 citations in Scopus, 10/01/2024), author/co-author of 14 books/chapter books, more than 70 proceedings published on the ambit of international congresses and over 250 oral and poster communications in national and international congresses.

She supervised over than 50 students/investigators involved in post-doctoral, doctoral (16) and MSc theses (16) and fellow researchers in funded projects.

More recent funded projects

1- Strategic Project of the Chemistry Center of the University of Minho; (UIDB/00686/2020); (Coordinator). Base UID - 2017/2018 * 6817 - DCRRNI ID * Chemistry, Start-End: 10/19/2020 - 10/19/2023. Budget: 334,800.00 Euros. http://dx.doi.org/10.13039/100008382.http://dx.doi.org/10.13039/100008382.

2- Strategic Project of the Chemistry Center of the University of Minho; (UIDP/00686/2020); (Coordinator). Programatic UID - 2017/2018 * 6817 - DCRRNI ID * Chemistry, Start-End: 10/19/2020 - 10/19/2023. Budget: 85.000,00 Euros. http://dx.doi.org/10.13039/100008382.

3- National Infrastructure for Biological Chemistry and Genetics; PT- OPENSCREEN, (NORTE-01-0145-FEDER-085468) (member of the team). Within the scope of the Northern Regional Operational Program 2014-2020 | NORTE 2020. Start-End: 01/01/2022 - 06/30/2023. Budget CQUM: 96.673,08 Euros. https://pt-openscreen.pt/

4- (PTDC/QUI-OUT/3143/2021) (member of the team): “Unleashing the tumor associated macrophage (TAM) workforce to fight against cancer from the inside”; UnTAM. From 2022 to 2024. Budget: 249 854,54 €. In collaboration with International Iberian Nanotechnology Laboratory (INL).

5- (PTDC/QUI-COL/28052/2017; NORTE-01-0145-FEDER-028052) (member of the team): “Self-reporting immunostimulating formulation for on-demand cancer therapy with real time treatment

response monitoring"; (Self-i). From 2018 to 2021. Budget: 239 718 €. In collaboration with International Iberian Nanotechnology Laboratory (INL).

6- (2017/24839-0), "Nanoelectronics and nanoelectrochemistry: fundamentals and applications"; (member of the team), Fundação de Amparo à Pesquisa do Estado de São Paulo. From 2018 to 2023. In collaboration with Universidade Estadual Paulista "Júlio Mesquita Filho" (UNESP) and University of Oxford. Budget: 750 000 USD.

7- (PTDC-ECI-EGC-31220_2017); (Co-coordinator): "Development of Advanced Fibre Optic Sensors to Monitor the Durability of Concrete and Reinforced Concrete Structures"; SolSensors. From 2018 to 2021. In collaboration with "Instituto de Engenharia de Sistemas e Computadores, Tecnologia e Ciência (INESC-TEC)". Budget: 239 979 €.

8- (NORTE-07-0124-FEDER-000039); "Nanostructured systems for tailored performance", n-Step, (member of the team); on the ambit of ON2: O Novo Norte – Programa Operacional Regional do Norte, "Programas Integrados de IC&DT - SAESCTN-PIIC&DT/1/2011, QREN, FEDER. From 2013 to 2016. In collaboration with "Instituto de Polímeros e Compósitos (IPC-UM)". Budget: 735 815 Euros.

9- (PTDC/CTM/105597/2008) (member of the team): "Nonlinear spectroscopy of push-pull organic molecules". In collaboration with Center of Physics. University of Minho (CF-UMinho). From 2010 to 2014 Budget: 165 000 €.

10- (PTDC/QUI/66251/2006) (Coordinator): "Thienylpyrroles as building blocks on the synthesis of organic and coordination compounds with nonlinear optical (NLO) applications". In collaboration with CF-UMinho and Center of Chemistryo University of Tràs-os-Montes e Alto Douro (CQ-UTAD). From 2009 to 2012. Budget: 159 486 €.

11- (PTDC/QUI/66250/2006) (Coordinator): "Development of new heterocyclic compounds as luminescent and colorimetric chemosensors: metallic anion and cation detection". In collaboration with Faculty of Sciences and Technology/New University of Lisbon (FCT/UNL). From 2008 to 2011. Budget: 110 100 €.

Publications (past eight years):

P1. Garcia-Amorós, J.; Castro, M. C. R.; Coelho, P.; **Raposo, M. M. M.**; Velasco, D. Fastest non-ionic azo dyes and transfer of their thermal isomerisation kinetics into liquid-crystalline materials. *Chem. Commun.* **2016**, *52*(29), 5132-5135. http://dx.doi.org/10.1039/C6CC00403B. Q1; IF = 6.319

P2. Castro, M. C. R.; **Raposo, M. M. M.** Synthesis of π-conjugated systems bearing thiophene and pyrrole heterocycles through palladium catalyzed cross-coupling reactions. *Tetrahedron* **2016**, *72*(15), 1881-1887. http://dx.doi.org/10.1016/j.tet.2016.02.054. Q2; IF = 2.651

P3. Castro, M. C. R.; Belsley, M.; **Raposo, M. M. M.** Push-pull second harmonic generation (SHG) chromophores bearing pyrrole and thiazole heterocycles functionalized with strong acceptor moieties: synthesis and characterization. *Dyes Pigments* **2016**, *128*, 89-95. http://dx.doi.org/10.1016/j.dyepig.2016.01.015. Q1; IF = 3.473

P4. I. Kuźniarska-Biernacka, **Raposo, M. M. M**, Batista, R. M. F.; Parpot, P.; Biernacki, K.; Magalhães, A. L.; Fonseca, A. M.; Neves, I. C. Highly efficient heterogeneous catalysts for phenol oxidation: binuclear pyrrolyl-azine metal complexes encapsulated in NaY Zeolite. *Microporous Mesoporous Mater.* **2016**, *227*, 272-280. http://dx.doi:10.1016/j.micromeso.2016.03.003. Q1; IF = 3.615

P5. Castro, M. C. R.; Belsley, M.; **Raposo, M. M. M.** Synthesis and characterization of push-pull (bi)thienylpyrrole NLOphores with enhanced hyperpolarizabilities. *Dyes Pigments* **2016**, *131*, 333-339. http://dx.doi.org/10.1016/j.dyepig.2016.04.027. Q1; IF = 3.473

P6. Esteves, C. I. C.; **Raposo, M. M. M.**; Costa, S. P. G. New 2,4,5-triarylimidazoles based on a phenylalanine core: synthesis, photophysical characterization and evaluation as fluorimetric chemosensors for ion recognition. *Dyes Pigments* **2016**, *134*, 258-268. http://dx.doi.org/10.1016/j.dyepig.2016.04.037. Q1; IF = 3.473

P7. Raposo, M. M. M.; Herbivo, C.; Hugues, V.; Clermont, G.; Castro, M. C. R.; Comel, A. Blanchard-Desce, M. Synthesis, fluorescence and two-photon absorption properties of push-pull 5-aryl[3,2-*b*]thienothiophene derivatives. *Eur. J. Org. Chem.* **2016**, *31*, 5263-5273. http://dx.doi.org/10.1002/ejoc.201600806. Q1; IF = 2.834

P8. Esteves, C. I. C.; Batista, R. M. F.; **Raposo, M. M. M.**; Costa, S. P. G. Novel functionalised imidazo-benzocrown ethers bearing a thiophene spacer as fluorimetric chemosensors for metal ion detection. *Dyes Pigments* **2016**, *135*, 134-142. ("*Special Issue: 2nd International Caparica Congress on Chromogenic and Emissive Materials"*). http://dx.doi.org/10.1016/j.dyepig.2016.04.037. Q1; IF = 3.473

P9. Fernandes, S. S. M.; Castro, M. C. R.; Mesquita, I.; Andrade, L.; Mendes, A.; **Raposo, M. M. M.** Synthesis and characterization of novel thieno[3,2 *b*]thiophene based metal-free organic dyes with

different heteroaromatic donor moieties as sensitizers for dye-sensitized solar cells. *Dyes Pigments* **2017**, *136*, 46-53. http://dx.doi.org/10.1016/j.dyepig.2016.08.020. Q1; IF = 3.767

P10. Mohammed, N.; Wiles, A. A.; Belsley, M.; Fernandes, S. S. M.; Cariello, M.; Rotello, V. M.; **Raposo, M. M. M.;** Cooke, G. Synthesis and characterisation of push-pull flavin dyes with efficient second harmonic generation (SHG) properties. *RSC Advances* **2017**, *7*, 24462-24469. http://dx.doi.org/10.1039/c7ra03400h. Q1; IF = 2.936

P11. Esteves, C. I. C.; **Raposo, M. M. M.**; Costa, S. P. G. Non-canonical amino acids bearing thiophene and bithiophene: synthesis by an Ugi multicomponent reaction and studies on ion recognition. *Amino Acids* **2017**, *49*(5), 921-930. http://dx.doi.org/10.1007/s00726-017-2392-7. Q1; IF = 2.906

P12. Fernandes, S. S. M.; Mesquita, I.; Andrade, L.; Mendes, A.; Justino, L. L. G. Burrows, H. D.; **Raposo, M. M. M.** Synthesis and characterization of push-pull bithiophene and thieno[3,2-*b*]thiophene derivatives bearing an ethyne linker as sensitizers for dye-sensitized solar cells. *Org. Electronics* **2017**, *49*, 194-205. http://dx.doi.org/10.1016/j.orgel.2017.06.048. Q1; IF = 3.680

P13. Ferreira, R. C. M.; Costa, S. P. G.; Gonçalves, H.; Belsley, M.; **Raposo, M. M. M.** Fluorescent phenanthroimidazoles functionalized with heterocyclic spacers: synthesis, optical chemosensory ability and Two-Photon Absorption (TPA) properties. *New J. Chem.* **2017**, *41*(21), 12866-12878. http://dx.doi.org/10.1039/C7NJ02113E. Q1; IF = 3.201

P14. Fernandes, S. S. M.; Castro, M. C. R.; Pereira, A. I.; Mendes, A.; Serpa, C.; Pina, J.; Justino, L. L. G.; Burrows, H. D.; **Raposo, M. M. M.** Optical and photovoltaic properties of thieno[3,2-*b*]thiophene based push-pull organic dyes with different anchoring groups for dye-sensitized solar cells. *ACS Omega* **2017**, *2*(12), 9268–9279. http://dx.doi.org/10.1021/acsomega.7b01195; Q1; IF = 2.584

P15. Fernandes, S. S. M.; Herbivo, C.; Aires-de-Sousa, J.; Comel, A.; Belsley, **Raposo, M. M. M.** Theoretical and experimental studies of aryl-bithiophene based push-pull π-conjugated heterocyclic systems bearing cyanoacetic or rhodanine-3-acetic acid acceptors for SHG nonlinear optical applications. *Dyes Pigments* **2018**, *149*, 566-573. http://dx.doi.org/10.1016/j.dyepig.2017.10.001; Q1; IF = 4.018

P16. Fernandes, S. S. M.; Belsley, M.; Ciarrocchi, C.; Licchelli, M.; **Raposo, M. M. M.** Terpyridine derivatives functionalized with (hetero)aromatic groups and the corresponding Ru complexes:

synthesis and characterization as SHG chromophores. *Dyes Pigments* **2018**, *150*, 49-58. https://doi.org/10.1016/j.dyepig.2017.10.046; Q1; IF = 4.018

P17. Ferreira, R. C. M.; **Raposo, M. M. M.;** Costa, S. P. G.; Heterocyclic amino acids as fluorescent reporters for transition metals: synthesis and evaluation of novel furylbenzoxazol-5-yl-L-alanines. *New J. Chem.* **2018**, *42*(5), 3483-3492. http://dx.doi.org/10.1039/c7nj04459c. Q1; IF = 3.069

P18. Esteves, C. I. C.; **Raposo, M. M. M.**; Costa, S. P. G. New fluoroionophores for metal cations based on benzo[*d*]oxazol-5-yl-alanine bearing pyrrole and imidazole. *Dyes Pigments* **2018**, *151*, 211-218. https://doi.org/10.1016/j.dyepig.2017.12.040. Q1; IF = 4.018

P19. Fernandes, S. S. M.; Pereira, A.; Ivanou, D.; Mendes, A.; **Raposo, M. M. M.** Benzothiadiazole derivatives functionalized with two different (hetero)aromatic donor groups: synthesis and evaluation as TiO_2 sensitizers for DSSCs. *Dyes Pigments* **2018**, *151*, 89-94. https://doi.org/10.1016/j.dyepig.2017.10.038. Q1; IF = 4.018

P20. Ferreira, R. C. M.; **Raposo, M. M. M.;** Costa, S. P. G.; Novel alanines bearing an heteroaromatic side chain: synthesis and studies on fluorescent chemosensing of metals cations with biological relevance. *Amino Acids* **2018**, *50*, 671-684. https://doi.org/10.1007/s00726-018-2549-z. Q1; IF = 2.52

P21. Presti, M. L.; Martínez-Máñez, R.; Ros-Lis, J. V.; Batista, R. M. F.; Costa, S. P. G.; **Raposo, M. M. M.**, Sancenón, F. A dual channel sulphur-containing macrocycle functionalised BODIPY probe for the detection of Hg(II) in mixed aqueous solution. *New J. Chem.* **2018**, *42*(10), 7863-7868. ("*Special Issue: International Symposium on Metal Complexes*"). http://dx.doi.org/10.1039/c7nj04699e. Q1; IF = 3.069

P22. Okda, H. E.; Sayed, S. E.; Ferreira, R. C. M.; Costa, S. P. G.; **Raposo, M. M. M.**, Martínez-Máñez, R. Sancenón, F. 4-(4,5-Diphenyl-1*H*-imidazole-2-yl)-*N*,*N*-dimethylaniline-Cu(II) complex, a highly selective probe for glutathione sensing in water-acetonitrile mixtures. *Dyes Pigments* **2018**, *159*, 45-48. ("*Special Issue: 3rd International Caparica Conference on Chromogenic and Emissive Materials"*). https://doi.org/10.1016/j.dyepig.2018.05.069. Q1; IF = 4.018

P23. Castro, M. C. R.; de Sá, A.; Fonseca, A. M.; **Raposo, M. M. M.;** Machado, A. V. Development of iridium porphyrin arrays by axial coordination trough *N*-bidentate ligand: Synthesis and evaluation of the optical, electrochemical and thermal properties. *Polyhedron* **2018**, *154*, 302-308. https://doi.org/10.1016/j.poly.2018.07.035. Q2; IF = 2.284

P24. Fernandes, S. S. M.; Belsley, M.; Pereira, A.; Ivanou, D.; Mendes, A.; Justino, L. L. G.; Belsley, M.; Burrows, H. D.; **Raposo, M. M. M.** Push-pull *N*,*N*-diphenylhydrazones bearing bithiophene and thienothiophene spacers: nonlinear optical properties and photovoltaic performance *ACS Omega* **2018**, *3*(10), 12893-12904. http://dx.doi.org/10.1021/acsomega.8b01045. Q1; IF = 2.584

P25. Fernandes, S. S. M.; Aires-de-Sousa, J.; Belsley, M.; **Raposo, M. M. M.** Synthesis of pyridazine derivatives by Suzuki-Miyaura cross-coupling reaction and evaluation of their optical and electronic properties through experimental and theoretical studies. *Molecules* **2018**, *23*(11), 3014. https://doi.org/10.3390/molecules23113014. Q1; IF = 3.06

P26. Okda, H. E.; Sayed, S. E.; Ferreira, R. C. M.; Otri, I.; Costa, S. P. G.; **Raposo, M. M. M.**, Martínez-Máñez, R. Sancenón, F. A simple and easy-to-prepare imidazole-based probe for the selective chromofluorogenic recognition of biothiols and Cu(II) in aqueous environments. *Dyes Pigments* **2019**, *162*, 303-308. https://doi.org/10.1016/j.dyepig.2018.10.017. Q1; IF = 4.613

P27. Okda, H. E.; Sayed, S. E.; Ferreira, R. C. M.; Gonçalves, R. C. R. Costa, S. P. G.; **Raposo, M. M. M.**, Martínez-Máñez, R. Sancenón, F. *N*,*N*-diphenylanilino-heterocyclic aldehydes based chemosensors for UV-vis/NIR and fluorescence Cu(II) detection. *New J. Chem.* **2019**, *43*(19), 7393-7402. https://doi.org/10.1039/C9NJ00880B. Q1; IF = 3.288

P28. Okda, H. E.; Sayed, S. E.; Otri, I.; Ferreira, R. C. M.; Costa, S. P. G.; **Raposo, M. M. M.**, Martínez-Máñez, R. Sancenón, F. 2,4,5-Triaryl imidazole probes for the selective chromo-fluorogenic detection of Cu(II). Prospective use of the Cu(II) complexes for the optical recognition of biothiols. *Polyhedron* **2019**, *170*, 388-394. (*Special Issue: in honor of Professor Miguel Julve", by editor invitation*) https://doi.org/10.1016/j.poly.2019.05.055. Q2; IF = 2.343

P29. Garcia-Amorós, J.; Reig. M.; Castro, M. C. R.; Nonell, S.; Vilchez, S.; Esquena, J.; Raposo, M. M. M.; Velasco, D. Adaptable photochromic switches with self-aggregating heterocyclic azo dyes. *J. Phys. Chem. C* **2019**, *123*(37), 23140−23144. https://doi.org/10.1021/acs.jpcc.9b07527. Q1; IF = 4.189

P30. Batista, R. M. F.; de Matos Gomes, E.; **Raposo, M. M. M.;** Costa, S. P. G.; Lopes, P. E.; Almeida, B.; Belsley, M. S. Self-assembling of dipeptide Boc-diphenylalanine nanotubes inside electrospun polymeric fibers with strong piezoelectric response. *Nanoscale Adv.* **2019**, *1*, 4339-4346. https://doi.org/10.1039/C9NA00464E. Q1; IF = 4.553 (2020)

P31. Kuźniarska-Biernacka, I.; **Raposo, M. M. M**, Batista, R. M. F.; Fonseca, A. M.; Oliveira, C.; Skiba, E.; Jartych, E.; Soares, O. S. G. P.; Pereira, M. F. R.; Neves, I. C. Binuclear furanyl-azine metal

complexes encapsulated in NaY zeolite as efficiently heterogeneous catalysts for phenol hydroxylation. *J. Mol. Structure*, **2020**, *1026*, 127687. https://doi.org/10.1016/j.molstruc.2020.127687. Q2; IF = 3.193

P32. Bernardo, C. R.; Batista, R. M. F.; de Matos Gomes, E.; Lopes, P. E.; **Raposo, M. M. M.;** Costa, S. P. G.; Belsley, M. S. 3-Nitroaniline electrospun nanofibers as strong emitters of second harmonic light and piezoelectric currents. *Nanoscale Adv.* **2020**, *2*, 1206-1213. https://doi.org/10.1039/C9NA00687G. Q1; IF = 4.553

P33. Moreira, X.; Santos, P.; Faustino, M. A. F.; **Raposo, M. M. M.;** Costa, S. P. G.; Moura, N. M. M.; Gomes, A. T. P. C.; Almeida, A.; Neves, M. G. P. M. S. An insight into the synthesis of cationic porphyrin-imidazole derivatives and their photodynamic inactivation efficiency against *Escherichia coli*. *Dyes Pigments* **2020**, *178*, 108330. https://doi.org/10.1016/j.dyepig.2020.108330. Q1; IF = 4.889

P34. Gomes, B. R.; Figueira, R. B.; Costa, S. P. G.; **Raposo, M. M. M.**; Silva, C. J. R. Synthesis and optical characterization of amino-alcohol sol-gel hybrid materials for applications in alkaline environments. *Polymers* **2020**, *12*(11), 2671. https://doi.org/10.3390/polym12112671. Q1; IF = 4.329

P35. Sousa, R. P. C. L.; Figueira, R. B.; Costa, S. P. G.; **Raposo, M. M. M.** Optical fibre sensors for biocide monitoring: the actual state-of-the-art. *ACS Sensors* **2020**. https://doi.org/10.1021/acssensors.0c01615. Q1; IF = 7.711

P36. Rashidnejad H.; Taghartapeh, M. R.; Pesyan, N. N.; Mahon, P. J.; **Raposo, M. M. M.**; Coelho, P. J.; Lup, A. N. K.; Soltani, A. A comprehensive spectroscopic, solvatochromic and photochemical analysis of 5-hydroxyquinoline and 8-hydroxyquinoline mono-azo dyes. *J. Mol. Structure*, **2021**, *1223*, 129323. https://doi.org/10.1016/j.molstruc.2020.129323. Q2; IF = 3.841

P37. Sousa, R. P. C. L.; Figueira, R. B.; Gomes, B.; Costa, S. P. G.; Azenha, M.; Pereira, R. P. C. L.; **Raposo, M. M. M.** Organic-inorganic hybrid sol-gel materials doped with a fluorescent triarylimidazole derivative. *RSC Advances* **2021**, *11*, 24613-24623. https://doi.org/10.1039/d1ra03997k. Q1; IF= 4.036

P38. Gonçalves, R.; Pina, J.; Costa, S. P. G.; **Raposo, M. M. M.**; Synthesis and characterization of aryl-substituted BODIPY dyes displaying distinct solvatochromic singlet oxygen photosensitization efficiencies. *Dyes Pigments* **2021**, *196*, 109784. https://doi.org/10.1016/j.dyepig.2021.109784. Q1; IF = 5.122

P39. Sousa, R. P. C. L.; Figueira, R. B.; Gomes, B. R.; Sousa, S.; Ferreira, R. C. M. Costa, S. P. G.; **Raposo, M. M. M.** Hybrid sol-gel matrices doped with colorimetric/fluorimetric imidazole derivatives. *Nanomaterials* **2021**, *11*(12), 3401. https://doi.org/10.3390/nano11123401. Q1; IF= 5.3

P40. Fernandes, S. S. M.; Castro, M. C.; Ivanou, D.; Mendes, A.; **Raposo, M. M. M.** Push-pull heterocyclic dyes based on pyrrole and thiophene: synthesis and evaluation of their optical, redox and photovoltaic properties. *Coatings* **2022**, *12*(1), 34. https://doi.org/10.3390/coatings12010034. Q2; IF = 3.4

P41. Sousa, R. P. C. L.; Figueira, R. B.; Costa, S. P. G.; **Raposo, M. M. M.** New dinitrophenyl hydrazones as colorimetric probes for anions. *Chemosensors* **2022**, *10*(10), 384. https://doi.org/10.3390/chemosensors10100384. Q1; IF = 4.2

P42. Ferreira, B.; Sousa, S.; Sousa, R. P. C. L.; Costa, S. P. G.; **Raposo, M. M. M.**; Parpot, P.; Pereira, R. P. C. L.; Valente, A. J. M.; Figueira, R. B. Organic-inorganic hybrid sol-gel membranes for highly alkaline environment. *Constr. Buil. Mater.* **2022**, *360*, 129493. https://doi.org/10.1016/j.conbuildmat.2022.129493. Q1; IF= 7.4

P43. Gonçalves, R. C. R.; Belmonte-Reche, E.; Pina, F.; Silva, M. C.; Pinto, S. C. S.; Gallo, J.; Costa, S. P. G.; **Raposo, M. M. M.** Bioimaging of lysosomes with a BODIPY pH-dependent fluorescent probe. *Molecules* **2022***, 27*(22), 8065. https://doi.org/10.3390/molecules27228065. Q1; IF = 4.6

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Book Chapters

BC1. Raposo, M. M. M. in *Comprehensive Organic Chemistry Experiments for the Laboratory Classroom* (COCELC), "Synthesis of methyl 4-oxo-4-(thiophen-2-yl)butanoate", Afonso, C. A. M.; Franzén, R.; Tan, B.; Candeias, N. R.; Simão, D.; Trindade, A.; Coelho, J. (Eds); Royal Society of Chemistry 2016, Chapter 129, Experiment 5.2.8., pp 566-569, (ISBN 978-18-49739-63-4).http://pubs.rsc.org/en/content/ebook/978-1-84973-963-4#!divbookcontent; http://hdl.handle.net/1822/44403

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1. Member of the editorial board of *Scientific Reports (*Sci. Rep.*);* ISSN 2045-2322; Nature Research, England, United Kingdom. https://www.nature.com/srep/about/editors#organic-chemistry; (IF = 4.6; Q1)

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