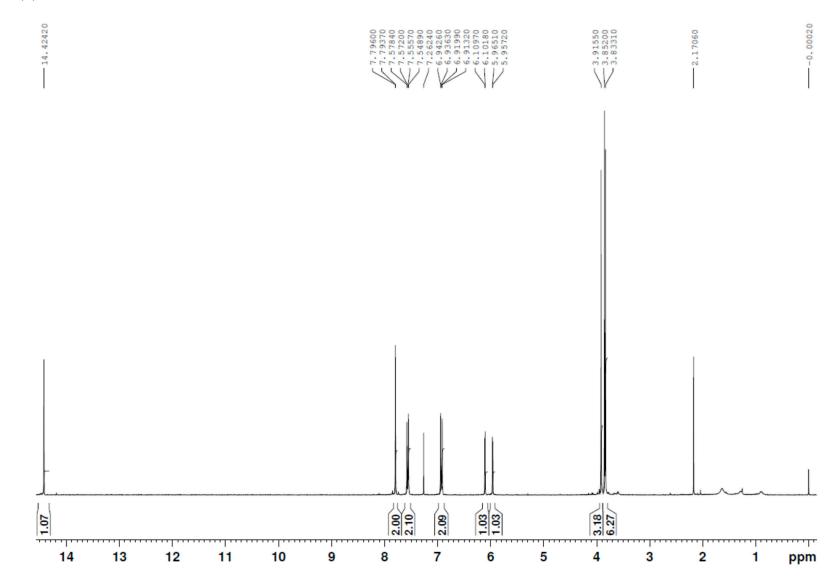


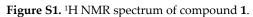


- 1 Article
- 2 Chalcones and Flavanones Bearing Hydroxyl and/or
- 3 Methoxyl Groups: Synthesis and Biological

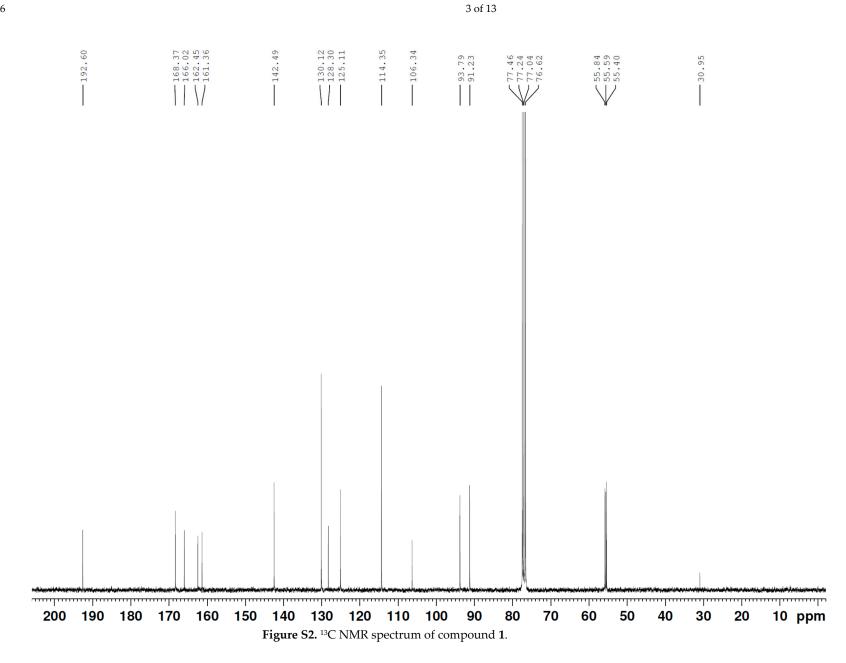
## 4 Assessments

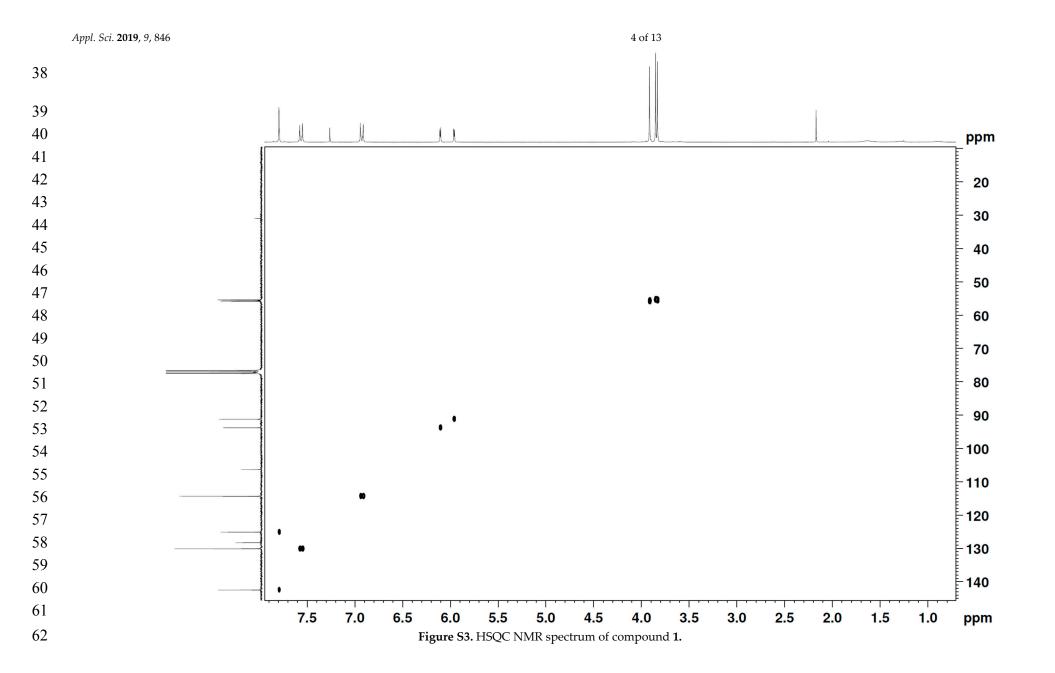
- Gonçalo P. Rosa <sup>1</sup>, Ana M. L. Seca <sup>1,2</sup>, Maria do Carmo Barreto <sup>1</sup>, Artur M. S. Silva <sup>2</sup> and Diana C.
  G. A. Pinto <sup>2\*</sup>,
- <sup>1</sup> cE3c- Centre for Ecology, Evolution and Environmental Changes/ Azorean Biodiversity Group &
   University of Azores, Rua Mãe de Deus, 9501-801 Ponta Delgada, Portugal; <u>goncalo.p.rosa@uac.pt;</u>
   <u>maria.cr.barreto@uac.pt;</u> <u>ana.ml.seca@uac.pt</u>
- 10 <sup>2</sup> QOPNA & LAQV-REQUIMTE, Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal; artur.silva@ua.pt; diana@ua.pt
- 12 \* Correspondence: diana@ua.pt; Tel.: +351 234 401 407 (D.C.G.A.P.)
- 13 14
- 15 **Figure S1.** <sup>1</sup>H NMR spectrum of compound **1**.
- 16 **Figure S2.** <sup>13</sup>C NMR spectrum of compound **1**.
- 17 **Figure S3.** HSQC NMR spectrum of compound **1**.
- 18 **Figure S4.** HMBC NMR spectrum of compound **1**.
- 19 **Figure S5**. ESI(+) Mass spectrum of compound **1**.
- 20 **Figure S6.** <sup>1</sup>H NMR spectrum of compound **4**.
- 21 **Figure S7.** <sup>13</sup>C NMR spectrum of compound **4**.
- Figure S8. HSQC NMR spectrum of compound 4.
- 23 **Figure S9.** HMBC NMR spectrum of compound 4.
- Figure S10. Antioxidant activity (%) presented by the compounds tested at three concentrations in the DPPH assay.
- Figure S11. Antioxidant activity (%) presented by the compounds tested at three concentrationsin the ABTS assay.
- Figure S12. BuChE inhibitory activity (%) presented by the compounds tested at three concentrations.
- 30 **Figure S13.** Inhibition of *M. luteus* growth (%) of the compounds tested at three concentrations.
- 31 **Figure S14.** Inhibition of *B. subtilis* growth (%) of the compounds tested at three concentrations.
- 32 **Figure S15.** Inhibition of A549 cell-line growth (%) of the compounds tested at three 33 concentrations.
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- 35

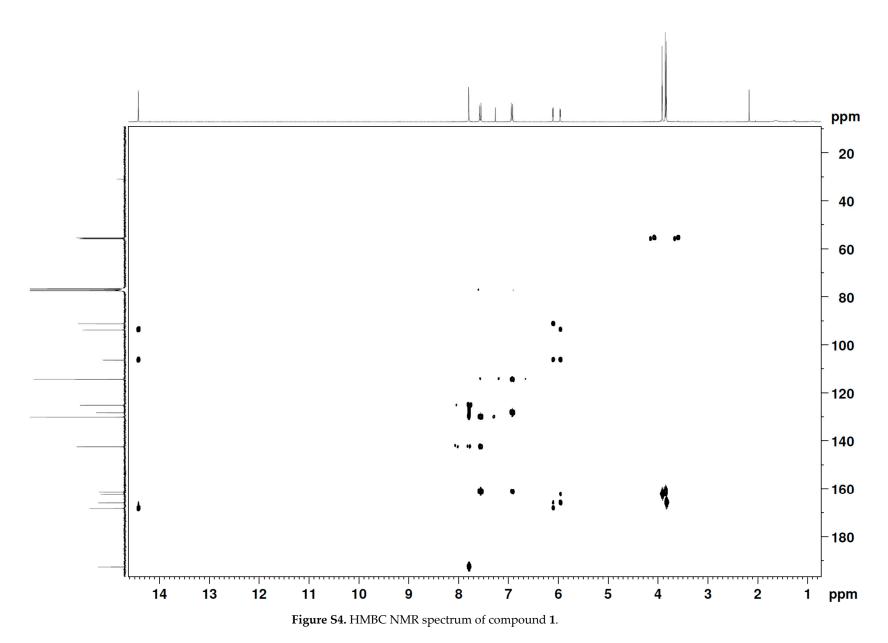




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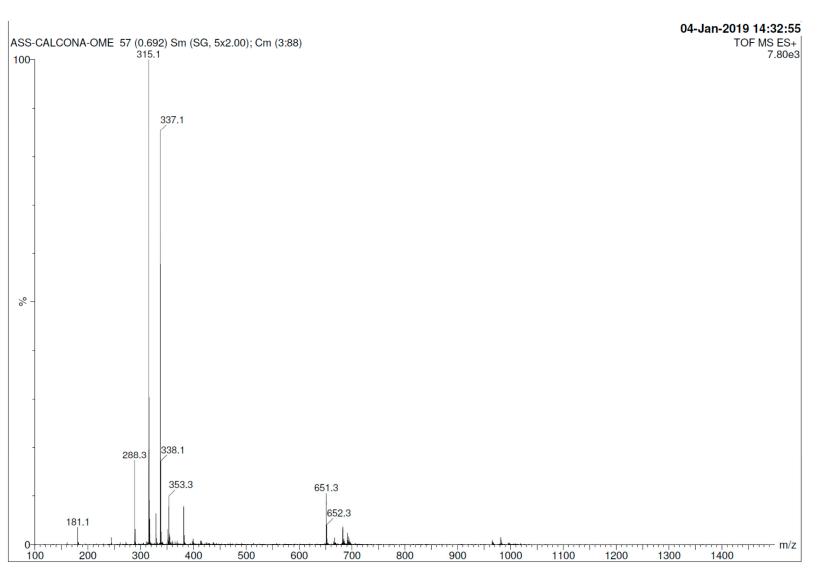
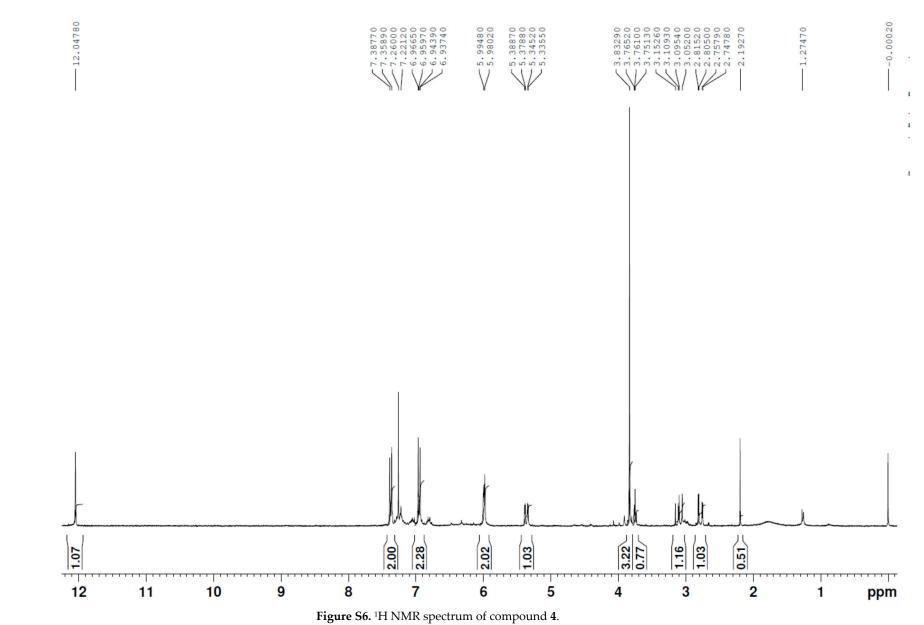
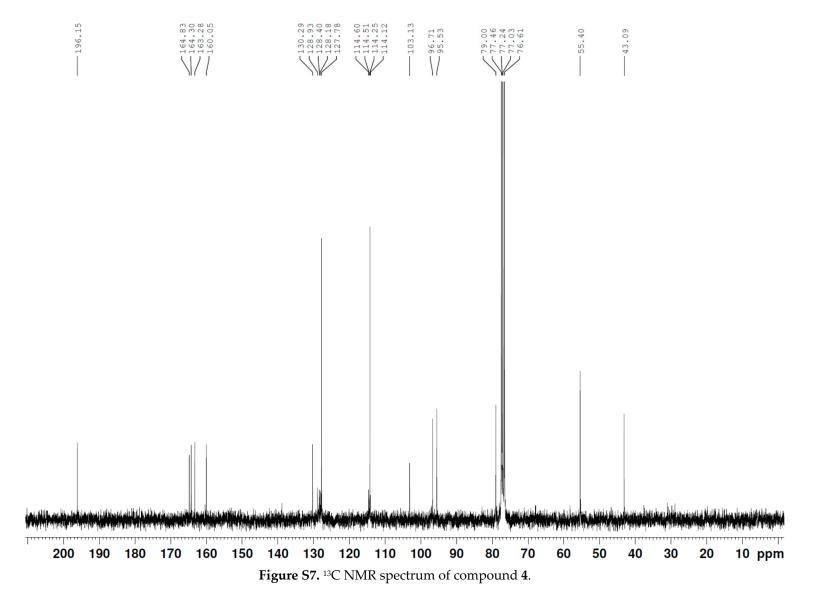


Figure S5. Mass spectrum of compound 1



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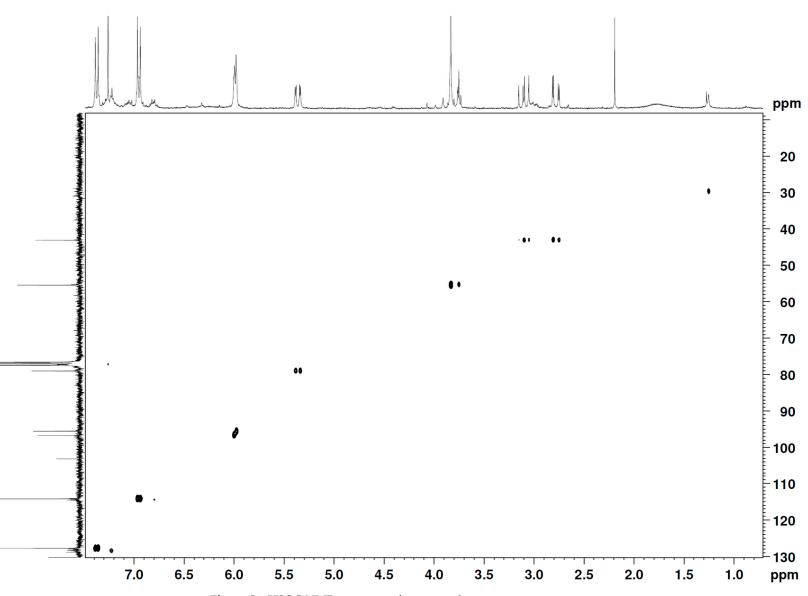
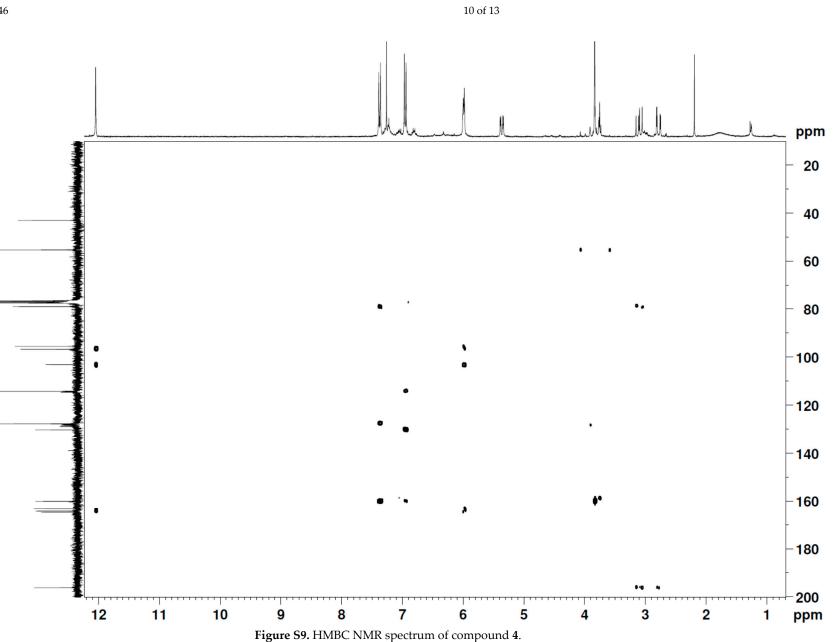


Figure S8. HSQC NMR spectrum of compound 4.





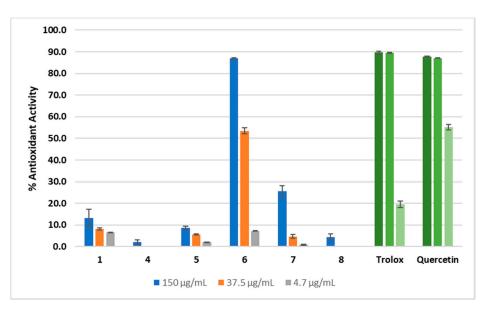
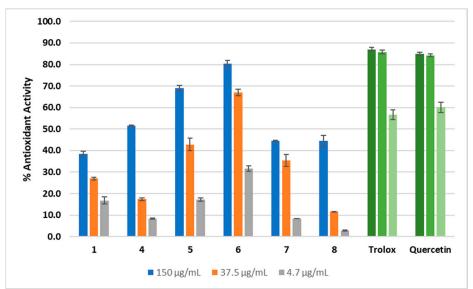


Figure 10. Antioxidant activity (%) presented by the compounds tested at three concentrations in the
 DPPH assay. The green bars represent the results for the reference compounds: quercetin and trolox
 (100, 25 and 3.13 µg/mL).



**Figure 11.** Antioxidant activity (%) presented by the compounds tested at three concentrations in the ABTS assay. The green bars represent the results for the reference compounds: quercetin and trolox (100, 25 and 3.13  $\mu$ g/mL).

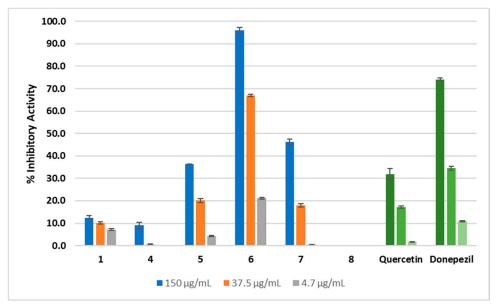
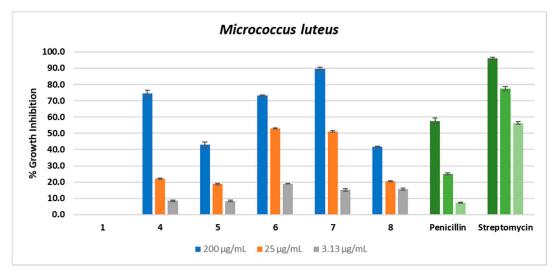
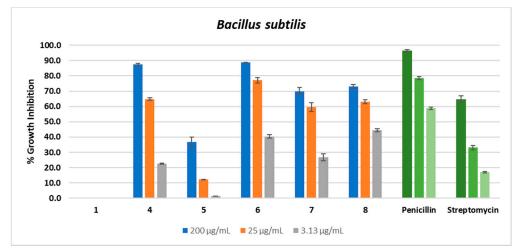


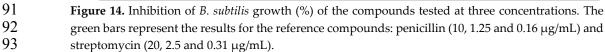
Figure 12. BuChE inhibitory activity (%) presented by the compounds tested at three concentrations.
 The green bars represent the results for the reference compounds: quercetin (100, 25 and 3.13 μg/mL)
 and donepezil (50, 12.5 and 1.56 μg/mL).

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87 88 89 **Figure 13.** Inhibition of *M. luteus* growth (%) of the compounds tested at three concentrations. The green bars represent the results for the reference compounds: penicillin (10, 1.25 and 0.16 µg/mL) and streptomycin (40, 5 and 0.63 µg/mL).





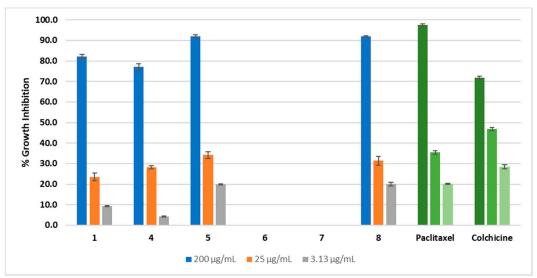


Figure 15. Inhibition of A549 cell-line growth (%) of the compounds tested at three concentrations.
 The green bars represent the results for the reference compounds: Paclitaxel and colchicine (10, 1.25 and 0.16 μg/mL).

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