*Supplementary Material*

# Hydroxyhydroquinone and Quassinoids as Promising Compounds with Hypoglycemic Activity through Redox Balance

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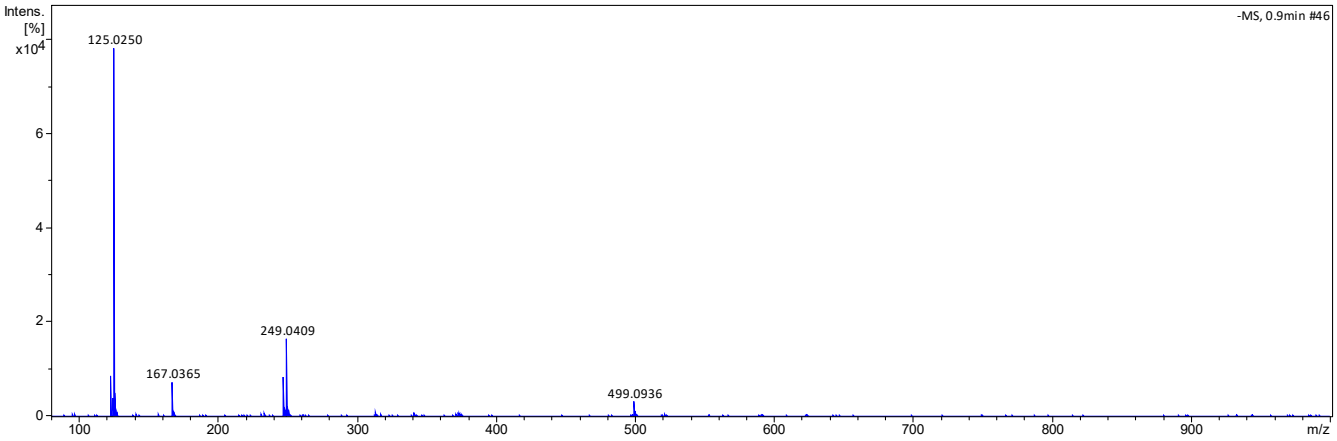



**Figure S1.** HRMS spectrum for HHQ compound obtained by ESI-TOF-MS in mode negative ions.

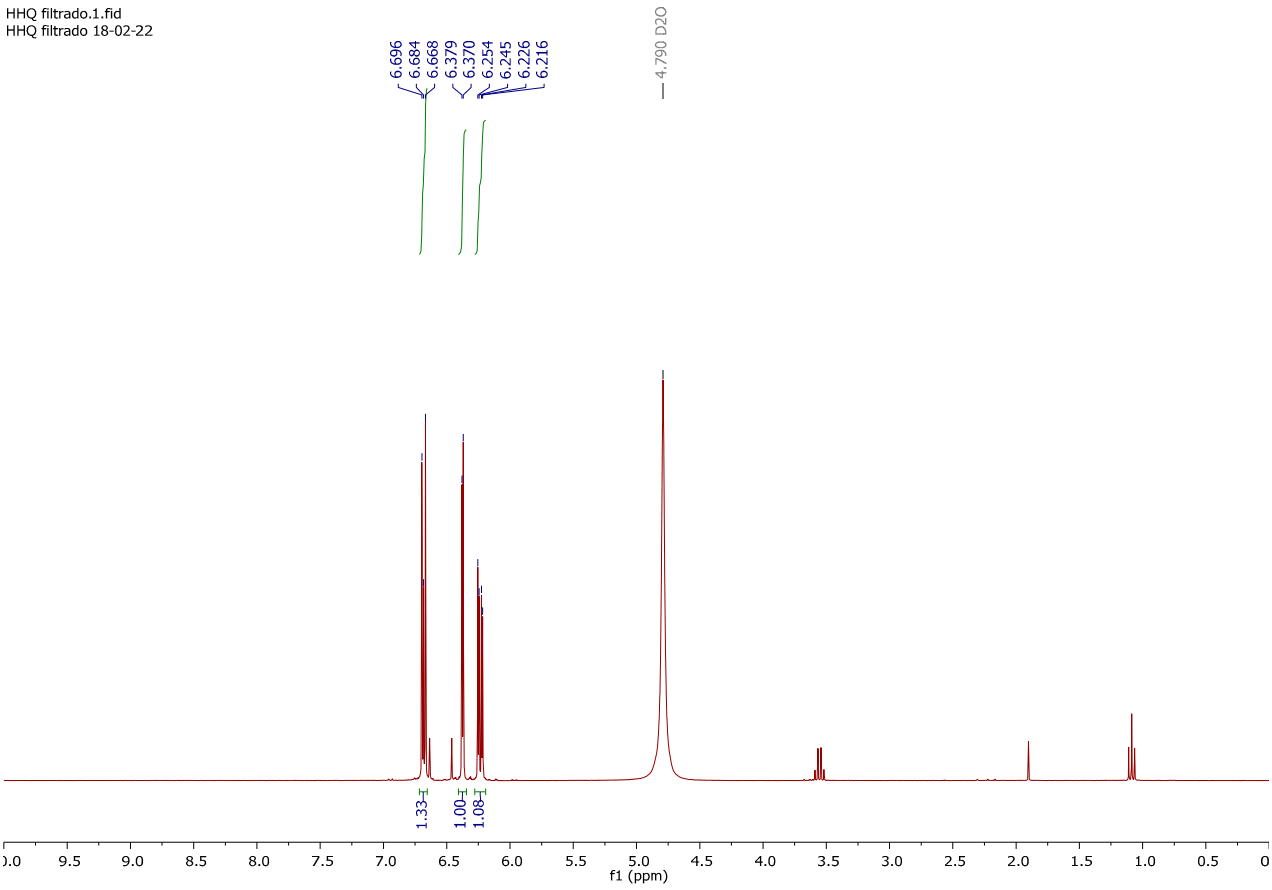



**Figure S2.** [1]HNMR spectrum for HHQ obtained in $D_2O$ at 300.18 MHz.

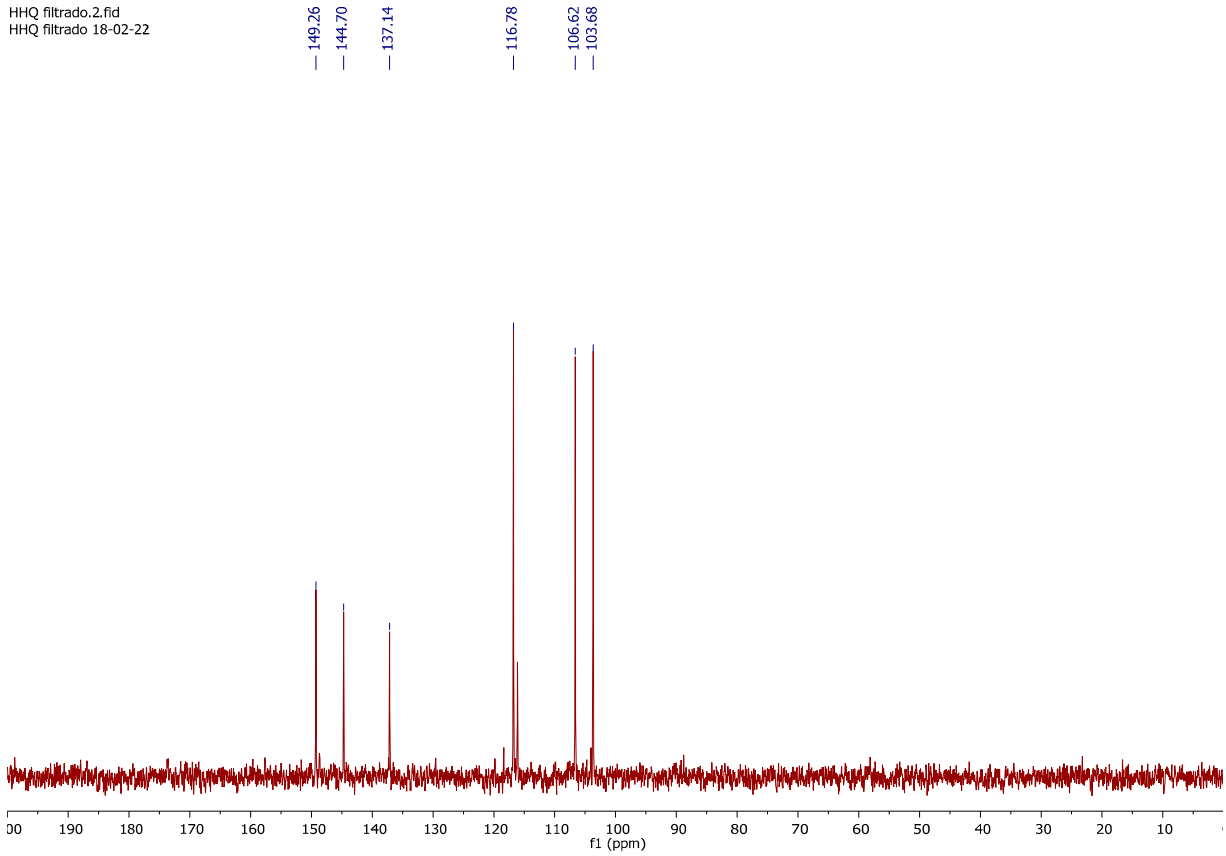



**Figure S3.** [13]CNMR spectrum for HHQ obtained in $D_2O$ at 75.49 MHz.

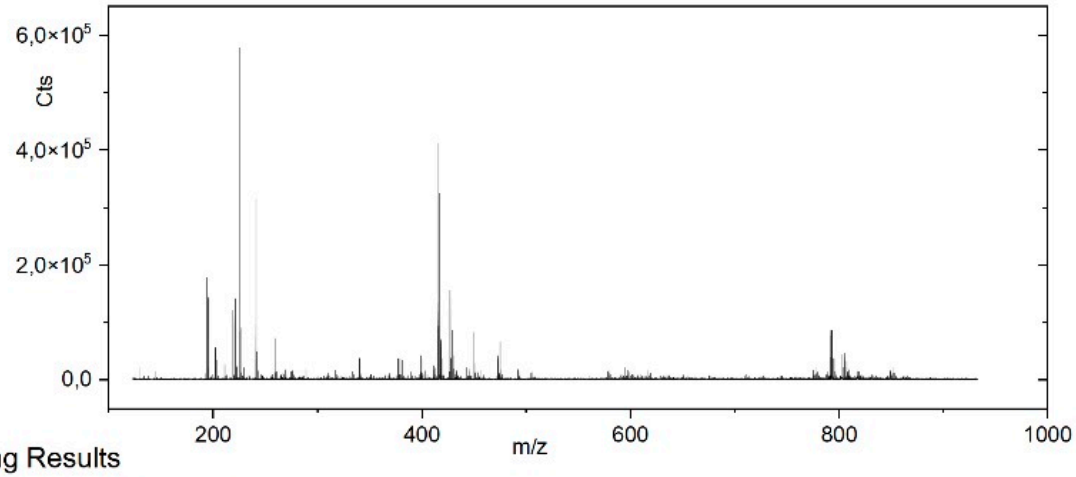
# Peak Analysis

Data Set:[Picrasmacrena]"Picrasma crenata"!B Date:06/11/2023

BaseLine:Constant

Chi^2=1,81718E+06 Adj. R-Square=9,59636E-01 # of Data Points=61187

SS=1,10864E+11 Degrees of Freedom=61009




Fitting Results

| Peak Index | Peak Type | Area Intg | FWHM | Max Height | Center Grvty | Area IntgP |
|---|---|---|---|---|---|---|
| 1 | Gaussian | 2302,27535 | 0,02425 | 20062,71903 | 130,08542 | 0,87655 |
| 2 | Gaussian | 9313,61455 | 0,03196 | 171727,07615 | 194,08327 | 3,54599 |
| 3 | Gaussian | 0,31062 | 0,03205 | 145356,91551 | 195,09005 | 1,18262E-4 |
| 4 | Gaussian | 141,13158 | 0,02979 | 20271,36692 | 196,09359 | 0,05373 |
| 5 | Gaussian | 0,34139 | 0,03133 | 55322,66705 | 202,10647 | 1,29977E-4 |
| 6 | Gaussian | 0,31113 | 0,03365 | 32868,6435 | 203,05264 | 1,18457E-4 |
| 7 | Gaussian | 3277,43991 | 0,03496 | 25391,14551 | 211,08576 | 1,24783 |
| 8 | Gaussian | 2219,62877 | 0,0339 | 118987,16199 | 219,02614 | 0,84508 |
| 9 | Gaussian | 243,30535 | 0,036 | 139821,54838 | 221,06946 | 0,09263 |
| 10 | Gaussian | 3041,58356 | 0,03597 | 22588,90179 | 222,07258 | 1,15803 |
| 11 | Gaussian | 30,24501 | 0,0369 | 20645,48761 | 223,08375 | 0,01152 |
| 12 | Gaussian | 73619,45708 | 0,03641 | 569154,91233 | 225,10168 | 28,02926 |
| 13 | Gaussian | 104,79734 | 0,03563 | 88766,35331 | 226,10396 | 0,0399 |
| 14 | Gaussian | 1597,75373 | 0,04201 | 19590,29471 | 229,09648 | 0,60832 |
| 15 | Gaussian | 15,3547 | 0,03813 | 302292,36184 | 241,0968 | 0,00585 |
| 16 | Gaussian | 2885,75906 | 0,04017 | 47761,32959 | 242,10072 | 1,0987 |
| 17 | Gaussian | 317,86461 | 0,03753 | 71120,99695 | 259,10717 | 0,12102 |
| 18 | Gaussian | 195,99954 | 0,04958 | 15505,31633 | 269,12628 | 0,07462 |
| 19 | Gaussian | 0,79617 | 0,03846 | 17367,68803 | 289,01056 | 3,03129E-4 |
| 20 | Gaussian | 4881,10584 | 0,04671 | 36424,77156 | 340,16472 | 1,85839 |
| 21 | Gaussian | 1061,60044 | 0,05108 | 35521,92214 | 377,19565 | 0,40418 |
| 22 | Gaussian | 221,61512 | 0,05041 | 34116,13011 | 379,20865 | 0,08438 |
| 23 | Gaussian | 4469,20129 | 0,04803 | 32626,66642 | 381,0795 | 1,70157 |
| 24 | Gaussian | 2886,4657 | 0,05781 | 40020,16367 | 399,17492 | 1,09897 |
| 25 | Gaussian | 338,7054 | 0,06255 | 33752,16385 | 401,19068 | 0,12896 |
| 26 | Gaussian | 1395,58328 | 0,04898 | 23924,14462 | 411,39598 | 0,53134 |
| 27 | Gaussian | 720,62842 | 0,08362 | 16938,38148 | 413,14188 | 0,27437 |
| 28 | Gaussian | 36595,48523 | 0,05514 | 398913,5644 | 415,15146 | 13,93306 |
| 29 | Gaussian | 316,36926 | 0,05307 | 92694,53929 | 416,15435 | 0,12046 |
| 30 | Gaussian | 25833,33228 | 0,05688 | 317744,48317 | 417,16537 | 9,83557 |
| 31 | Gaussian | 7159,82421 | 0,05525 | 70085,73108 | 418,16925 | 2,72597 |
| 32 | Gaussian | 545,00494 | 0,06138 | 35657,09157 | 419,16774 | 0,2075 |
| 33 | Gaussian | 623,38716 | 0,05404 | 153604,67381 | 427,1511 | 0,23734 |
| 34 | Gaussian | 3418,1075 | 0,05324 | 36505,75349 | 428,15492 | 1,30138 |
| 35 | Gaussian | 6122,39995 | 0,06467 | 81487,18897 | 429,16603 | 2,33099 |
| 36 | Gaussian | 470,01155 | 0,07323 | 17736,85506 | 430,17297 | 0,17895 |
| 37 | Gaussian | 1594,05334 | 0,0648 | 40725,50101 | 431,15168 | 0,60691 |
| 38 | Gaussian | 2560,05513 | 0,05927 | 19050,25089 | 443,14646 | 0,97469 |
| 39 | Gaussian | 112,36049 | 0,05755 | 18777,43283 | 446,22575 | 0,04278 |
| 40 | Gaussian | 4196,17578 | 0,05542 | 80759,09046 | 449,35288 | 1,59762 |
| 41 | Gaussian | 95,66248 | 0,05329 | 26959,32181 | 450,35588 | 0,03642 |
| 42 | Gaussian | 760,37211 | 0,06209 | 41132,02321 | 473,1583 | 0,2895 |
| 43 | Gaussian | 3019,01815 | 0,06069 | 63167,84516 | 475,1714 | 1,14944 |
| 44 | Gaussian | 1773,06059 | 0,10785 | 15195,9645 | 476,19976 | 0,67506 |
| 45 | Gaussian | 882,61783 | 0,06306 | 16676,05682 | 492,26047 | 0,33604 |
| 46 | Gaussian | 665,85478 | 0,07901 | 19085,70796 | 595,21463 | 0,25351 |
| 47 | Gaussian | 2527,75674 | 0,10505 | 19973,17843 | 777,37069 | 0,9624 |
| 48 | Gaussian | 10636,43595 | 0,0896 | 82622,97508 | 791,33971 | 4,04963 |
| 49 | Gaussian | 4058,59707 | 0,08858 | 37264,93138 | 792,34165 | 1,54524 |
| 50 | Gaussian | 4554,69763 | 0,08875 | 84686,24508 | 793,35114 | 1,73412 |
| 51 | Gaussian | 4426,66512 | 0,08824 | 36594,15989 | 794,35531 | 1,68537 |
| 52 | Gaussian | 4002,45574 | 0,09362 | 36185,84103 | 795,36372 | 1,52386 |
| 53 | Gaussian | 3972,59639 | 0,0939 | 41174,87963 | 803,33594 | 1,51249 |
| 54 | Gaussian | 1188,9833 | 0,08989 | 19625,87143 | 804,34191 | 0,45268 |
| 55 | Gaussian | 6001,15121 | 0,10158 | 43555,55378 | 805,3532 | 2,28483 |
| 56 | Gaussian | 2034,16799 | 0,09587 | 19506,08516 | 806,35339 | 0,77447 |
| 57 | Gaussian | 2365,52586 | 0,10169 | 30503,09369 | 807,34912 | 0,90063 |
| 58 | Gaussian | 2174,08266 | 0,10001 | 15981,99318 | 809,35035 | 0,82774 |
| 59 | Gaussian | 2683,04522 | 0,09582 | 19417,00492 | 851,35639 | 1,02152 |

**Figure S4.** Mass spectrum of P. crenata extract obtained by direct infusion on ESI-TOF MS.