|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table (1): Cyclic voltammetric data of *para*-substituted (E)-1-(Furan-2-yl)-3-phenylprop-2-ene-1-ones reduction on  glassy carbon electrode in acetonitrile | | | | | | | | | | | | |
| [substrate] = 10 mM | | |  |  |  |  |  |  |  |  |  |  |
|  | | | First peak  --------------------------------------------------------- | | | | | Second peak  -------------------------------------------------------------- | | | | |
|
| S.No. | Substituent | Sweep | ip | ip/ACν1/2 | -Ep | -Ep1/2 | αna | ip | ip/ACν1/2 | -Ep | -Ep1/2 | αna |
|  |  | rate |  |  |  |  |  |  |  |  |  |  |
|  |  | (mV s-1) | (µA) |  | (V) | (V) |  | (µA) |  | (V) | (V) |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | NMe2 | 20 | 81.67 | 1839 | 1.567 | 1.512 | 0.87 | 65.86 | 1483 | 1.964 | 1.809 | 0.31 |
|  |  | 40 | 116.60 | 1857 | 1.577 | 1.510 | 0.72 | 91.43 | 1456 | 1.966 | 1.788 | 0.27 |
|  |  | 80 | 158.20 | 1781 | 1.590 | 1.508 | 0.59 | 125.30 | 1411 | 1.966 | 1.789 | 0.27 |
|  |  | 160 | 215.90 | 1719 | 1.608 | 1.510 | 0.49 | 178.60 | 1422 | 1.974 | 1.784 | 0.25 |
|  |  | 320 | 295.50 | 1664 | 1.621 | 1.492 | 0.37 | 262.40 | 1477 | 1.984 | 1.765 | 0.22 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Me | 20 | 66.16 | 1490 | 1.350 | 1.274 | 0.63 | 65.95 | 1485 | 1.824 | 1.667 | 0.31 |
|  |  | 40 | 87.60 | 1395 | 1.355 | 1.277 | 0.62 | 76.42 | 1217 | 1.819 | 1.657 | 0.30 |
|  |  | 80 | 139.80 | 1579 | 1.365 | 1.261 | 0.46 | 111.10 | 1251 | 1.819 | 1.650 | 0.28 |
|  |  | 160 | 201.20 | 1602 | 1.378 | 1.281 | 0.49 | 177.60 | 1414 | 1.827 | 1.626 | 0.24 |
|  |  | 320 | 267.90 | 1508 | 1.396 | 1.282 | 0.42 | 238.30 | 1342 | 1.840 | 1.639 | 0.23 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | H | 20 | 96.25 | 2167 | 1.309 | 1.206 | 0.47 | 84.93 | 1913 | 1.543 | 1.384 | 0.30 |
|  |  | 40 | 134.30 | 2139 | 1.328 | 1.216 | 0.43 | 112.80 | 1796 | 1.553 | 1.384 | 0.28 |
|  |  | 50 | 145.10 | 2067 | 1.338 | 1.226 | 0.43 | 122.10 | 1739 | 1.568 | 1.389 | 0.27 |
|  |  | 80 | 198.70 | 2237 | 1.338 | 1.231 | 0.45 | 172.20 | 1939 | 1.568 | 1.378 | 0.25 |
|  |  | 100 | 215.60 | 2171 | 1.353 | 1.233 | 0.40 | 174.50 | 1757 | 1.573 | 1.390 | 0.26 |
|  |  | 160 | 276.80 | 2204 | 1.348 | 1.236 | 0.43 | 218.40 | 1739 | 1.563 | 1.329 | 0.21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | F | 20 | 19.71 | 444 | 1.270 | 1.169 | 0.48 | 87.18 | 1963 | 1.838 | 1.729 | 0.44 |
|  |  | 40 | 27.20 | 433 | 1.270 | 1.191 | 0.61 | 104.80 | 1669 | 1.848 | 1.730 | 0.41 |
|  |  | 80 | 38.83 | 437 | 1.277 | 1.168 | 0.44 | 128.27 | 1444 | 1.875 | 1.736 | 0.35 |
|  |  | 160 | 42.77 | 341 | 1.321 | 1.206 | 0.42 | 179.33 | 1428 | 1.884 | 1.766 | 0.41 |
|  |  | 320 | 64.14 | 361 | 1.357 | 1.237 | 0.40 | 232.66 | 1310 | 1.90 | 1.807 | 0.52 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Cl | 20 | 99.18 | 2233 | 1.176 | 1.112 | 0.75 | 88.60 | 1995 | 1.748 | 1.552 | 0.24 |
|  |  | 40 | 148.50 | 2365 | 1.184 | 1.114 | 0.69 | 117.50 | 1871 | 1.756 | 1.585 | 0.28 |
|  |  | 80 | 201.60 | 2270 | 1.197 | 1.116 | 0.60 | 149.60 | 1684 | 1.776 | 1.581 | 0.25 |
|  |  | 160 | 290.6 | 2314 | 1.215 | 1.128 | 0.55 | 178.80 | 1796 | 1.788 | 1.534 | 0.19 |
|  |  | 320 | 392.3 | 2209 | 1.236 | 1.13 | 0.45 | 305.80 | 1722 | 1.802 | 1.578 | 0.21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | CHO | 20 | 70.01 | 1577 | 1.137 | 1.028 | 0.44 | 66.44 | 1496 | 1.368 | 1.243 | 0.38 |
|  |  | 40 | 100.70 | 1604 | 1.147 | 1.034 | 0.42 | 91.03 | 1450 | 1.375 | 1.240 | 0.36 |
|  |  | 80 | 145.70 | 1641 | 1.160 | 1.040 | 0.40 | 129.30 | 1456 | 1.391 | 1.239 | 0.32 |
|  |  | 160 | 210.30 | 1674 | 1.178 | 1.051 | 0.38 | 187.40 | 1492 | 1.404 | 1.230 | 0.28 |
|  |  | 320 | 296.30 | 1668 | 1.196 | 1.060 | 0.35 | 267.60 | 1507 | 1.412 | 1.226 | 0.26 |