|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table ( )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/ACV1/2 | -Ep | -Ep1/2 | αna | ip | ip/ACV1/2 | -Ep | -Ep1/2 | αna |
|  |  | rate |  |  |  |  |  |  |  |  |  |  |
|  |  | (mV s-1) | (µA) |  | (V) | (V) |  | (µA) |  | (V) | (V) |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | NMe2 | 20 | 8.167 | 184 | 1.567 | 1.512 | 0.87 | 6.586 | 148 | 1.964 | 1.809 | 0.31 |
|  |  | 40 | 11.66 | 186 | 1.577 | 1.51 | 0.72 | 9.143 | 146 | 1.966 | 1.788 | 0.27 |
|  |  | 80 | 15.82 | 178 | 1.59 | 1.508 | 0.59 | 12.53 | 141 | 1.966 | 1.789 | 0.27 |
|  |  | 160 | 21.59 | 172 | 1.608 | 1.51 | 0.49 | 17.86 | 142 | 1.974 | 1.784 | 0.25 |
|  |  | 320 | 29.55 | 166 | 1.621 | 1.492 | 0.37 | 26.24 | 148 | 1.984 | 1.765 | 0.22 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Me | 20 | 6.616 | 149 | 1.35 | 1.274 | 0.63 | 6.616 | 149 | 1.667 | 0.157 | 0.31 |
|  |  | 40 | 8.76 | 139 | 1.355 | 1.277 | 0.62 | 8.76 | 139 | 1.657 | 0.162 | 0.30 |
|  |  | 80 | 13.98 | 157 | 1.365 | 1.261 | 0.46 | 13.98 | 157 | 1.23 | 0.589 | 0.08 |
|  |  | 160 | 20.12 | 160 | 1.378 | 1.281 | 0.49 | 20.12 | 160 | 1.626 | 0.201 | 0.24 |
|  |  | 320 | 26.79 | 151 | 1.396 | 1.282 | 0.42 | 26.79 | 151 | 1.634 | 0.206 | 0.23 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | H | 20 | 9.625 | 217 | 1.309 | 1.206 | 0.47 | 8.493 | 191 | 1.543 | 1.384 | 0.30 |
|  |  | 40 | 13.43 | 214 | 1.328 | 1.216 | 0.43 | 11.28 | 180 | 1.553 | 1.384 | 0.28 |
|  |  | 50 | 14.51 | 207 | 1.338 | 1.226 | 0.43 | 12.21 | 174 | 1.568 | 1.389 | 0.27 |
|  |  | 80 | 19.87 | 224 | 1.338 | 1.231 | 0.45 | 17.22 | 194 | 1.568 | 1.378 | 0.25 |
|  |  | 100 | 21.56 | 217 | 1.353 | 1.233 | 0.40 | 17.95 | 181 | 1.573 | 1.39 | 0.26 |
|  |  | 160 | 27.68 | 220 | 1.348 | 1.236 | 0.43 | 21.84 | 174 | 1.563 | 1.329 | 0.21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | F | 20 | 1.971 | 44 | 1.27 | 1.169 | 0.48 | 8.718 | 196 | 1.72 | 1.729 | -5.33 |
|  |  | 40 | 2.72 | 43 | 1.27 | 1.191 | 0.61 | 10.48 | 167 | 1.848 | 1.73 | 0.41 |
|  |  | 80 | 3.883 | 44 | 1.277 | 1.168 | 0.44 | 12.827 | 144 | 1.875 | 1.736 | 0.35 |
|  |  | 160 | 4.277 | 34 | 1.321 | 1.206 | 0.42 | 17.933 | 143 | 1.884 | 1.766 | 0.41 |
|  |  | 320 | 6.414 | 36 | 1.357 | 1.237 | 0.40 | 23.266 | 131 | 1.9 | 1.807 | 0.52 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Cl | 20 | 0.9918 | 22 | 1.176 | 1.1122 | 0.75 | 0.886 | 20 | 1.748 | 1.552 | 0.24 |
|  |  | 40 | 1.485 | 24 | 1.184 | 1.1145 | 0.69 | 1.175 | 19 | 1.756 | 1.585 | 0.28 |
|  |  | 80 | 2.016 | 23 | 1.197 | 1.1168 | 0.60 | 1.496 | 17 | 1.776 | 1.581 | 0.25 |
|  |  | 160 | 2.906 | 23 | 1.215 | 1.128 | 0.55 | 1.788 | 14 | 2.256 | 1.494 | 0.06 |
|  |  | 320 | 3.923 | 22 | 1.236 | 1.13 | 0.45 | 3.058 | 17 | 1.802 | 1.578 | 0.21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | CHO | 20 | 7.001 | 158 | 1.137 | 1.028 | 0.44 | 6.644 | 150 | 1.368 | 1.243 | 0.38 |
|  |  | 40 | 10.07 | 160 | 1.147 | 1.034 | 0.42 | 9.103 | 145 | 1.375 | 1.24 | 0.36 |
|  |  | 80 | 14.57 | 164 | 1.16 | 1.04 | 0.40 | 12.93 | 146 | 1.391 | 1.239 | 0.32 |
|  |  | 160 | 21.03 | 167 | 1.178 | 1.051 | 0.38 | 18.74 | 149 | 1.404 | 1.23 | 0.28 |
|  |  | 320 | 29.63 | 167 | 1.196 | 1.06 | 0.35 | 26.76 | 151 | 1.412 | 1.226 | 0.26 |