|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table ( ). Hammett correlations for the voltammetric reduction of *para*-substituted (E)-1-(furan-2-yl)-3-phenylprop-2-ene-1-ones on  glassy carbon electrode in acetonitrile | | | | | | | | | | | |
|
| [substrate] = 10 mM | | supporting electrolyte = tetrabutyl ammonium tetra fluro borate | | | | | | | | | |
|  | | first peak | | | | | | Second peak | | | |
|
| Quantity | Substituent | Sweep | correlation | slope | standard | n | ψ | correlation | slope | standard | ψ |
| correlated | constant | rate | coefficient |  | deviation |  |  | coefficient |  | deviation |  |
|  |  | (mV/s) |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ep(V) | σp | 20 | 0.993 | 0.350±0.020 | 0.019 | 6 | 0.145 | 0.747 | 0.378±0.168 | 0.163 | 0.814 |
|  |  | 40 | 0.991 | 0.353±0.023 | 0.022 | 6 | 0.164 | 0.743 | 0.371±0.167 | 0.162 | 0.820 |
|  |  | 80 | 0.974 | 0.349±0.040 | 0.039 | 6 | 0.277 | 0.718 | 0.353±0.171 | 0.166 | 0.852 |
|  |  | 160 | 0.992 | 0.348±0.022 | 0.022 | 6 | 0.155 | 0.709 | 0.350±0.174 | 0.169 | 0.864 |
|  |  | 320 | 0.989 | 0.342±0.028 | 0.027 | 5 | 0.191 | 0.745 | 0.340±0.176 | 0.170 | 0.861 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | σp / σp- | 20 | 0.931 | 0.236±0.046 | 0.062 | 6 | 0.447 | 0.857 | 0.311±0.094 | 0.126 | 0.631 |
|  |  | 40 | 0.927 | 0.237±0.048 | 0.064 | 6 | 0.459 | 0.855 | 0.307±0.093 | 0.126 | 0.635 |
|  |  | 80 | 0.919 | 0.237±0.050 | 0.068 | 6 | 0.483 | 0.839 | 0.297±0.096 | 0.130 | 0.666 |
|  |  | 160 | 0.930 | 0.234±0.046 | 0.062 | 6 | 0.450 | 0.826 | 0.293±0.100 | 0.135 | 0.690 |
|  |  | 320 | 0.935 | 0.232±0.051 | 0.068 | 5 | 0.458 | 0.920 | 0.302±0.074 | 0.099 | 0.506 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | σp+/ σp- | 20 | 0.958 | 0.165±0.024 | 0.049 | 6 | 0.351 | 0.845 | 0.209±0.066 | 0.131 | 0.655 |
|  |  | 40 | 0.953 | 0.166±0.026 | 0.052 | 6 | 0.371 | 0.844 | 0.207±0.065 | 0.129 | 0.657 |
|  |  | 80 | 0.932 | 0.163±0.032 | 0.063 | 6 | 0.444 | 0.826 | 0.199±0.067 | 0.134 | 0.690 |
|  |  | 160 | 0.959 | 0.165±0.024 | 0.047 | 6 | 0.347 | 0.818 | 0.198±0.069 | 0.137 | 0.704 |
|  |  | 320 | 0.965 | 0.163±0.023 | 0.050 | 5 | 0.339 | 0.853 | 0.191±0.067 | 0.133 | 0.674 |
| Ep(V) | σp+/σp/ σp- | 20 | 0.967 | 0.165±0.021 | 0.043 | 6 | 0.312 | 0.800 | 0.196±0.073 | 0.146 | 0.735 |
|  |  | 40 | 0.965 | 0.167±0.022 | 0.045 | 6 | 0.321 | 0.799 | 0.193±0.073 | 0.146 | 0.736 |
|  |  | 80 | 0.949 | 0.165±0.027 | 0.055 | 6 | 0.386 | 0.780 | 0.186±0.075 | 0.149 | 0.766 |
|  |  | 160 | 0.970 | 0.165±0.021 | 0.042 | 6 | 0.298 | 0.771 | 0.185±0.076 | 0.153 | 0.780 |
|  |  | 320 | 0.970 | 0.162±0.023 | 0.046 | 5 | 0.314 | 0.815 | 0.180±0.074 | 0.147 | 0.748 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Ep1/2 (V) | σp | 20 | 0.999 | 0.385±0.008 | 0.008 | 6 | 0.055 | 0.741 | 0.369±0.167 | 0.162 | 0.822 |
|  |  | 40 | 0.998 | 0.376±0.012 | 0.012 | 6 | 0.077 | 0.700 | 0.342±0.174 | 0.168 | 0.875 |
|  |  | 80 | 0.995 | 0.371±0.017 | 0.017 | 6 | 0.122 | 0.697 | 0.343±0.176 | 0.171 | 0.878 |
|  |  | 160 | 0.996 | 0.362±0.015 | 0.014 | 6 | 0.109 | 0.673 | 0.353±0.194 | 0.188 | 0.906 |
|  |  | 320 | 0.989 | 0.339±0.028 | 0.027 | 5 | 0.191 | 0.651 | 0.309±0.208 | 0.201 | 0.980 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | σp / σp- | 20 | 0.947 | 0.262±0.044 | 0.060 | 6 | 0.393 | 0.833 | 0.298±0.099 | 0.134 | 0.678 |
|  |  | 40 | 0.952 | 0.258±0.041 | 0.056 | 6 | 0.375 | 0.813 | 0.285±0.102 | 0.138 | 0.713 |
|  |  | 80 | 0.942 | 0.252±0.044 | 0.060 | 6 | 0.411 | 0.839 | 0.297±0.096 | 0.130 | 0.666 |
|  |  | 160 | 0.953 | 0.249±0.039 | 0.053 | 6 | 0.371 | 0.826 | 0.294±0.100 | 0.135 | 0.690 |
|  |  | 320 | 0.957 | 0.235±0.041 | 0.055 | 5 | 0.375 | 0.838 | 0.286±0.107 | 0.099 | 0.506 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | σp+/ σp- | 20 | 0.977 | 0.184±0.019 | 0.039 | 6 | 0.261 | 0.846 | 0.209±0.066 | 0.131 | 0.653 |
|  |  | 40 | 0.978 | 0.181±0.019 | 0.037 | 6 | 0.255 | 0.803 | 0.192±0.071 | 0.141 | 0.730 |
|  |  | 80 | 0.970 | 0.177±0.022 | 0.044 | 6 | 0.298 | 0.800 | 0.193±0.072 | 0.143 | 0.735 |
|  |  | 160 | 0.977 | 0.174±0.018 | 0.037 | 6 | 0.261 | 0.768 | 0.197±0.082 | 0.162 | 0.784 |
|  |  | 320 | 0.977 | 0.164±0.021 | 0.040 | 5 | 0.275 | 0.762 | 0.178±0.087 | 0.172 | 0.836 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  | σp+/σp/ σp- | 20 | 0.983 | 0.183±0.016 | 0.033 | 6 | 0.225 | 0.783 | 0.189±0.075 | 0.151 | 0.762 |
|  |  | 40 | 0.983 | 0.180±0.016 | 0.033 | 6 | 0.225 | 0.755 | 0.179±0.077 | 0.155 | 0.803 |
|  |  | 80 | 0.982 | 0.177±0.017 | 0.034 | 6 | 0.231 | 0.752 | 0.179±0.078 | 0.157 | 0.807 |
|  |  | 160 | 0.983 | 0.173±0.016 | 0.032 | 6 | 0.225 | 0.720 | 0.183±0.088 | 0.176 | 0.850 |
|  |  | 320 | 0.978 | 0.162±0.020 | 0.040 | 5 | 0.269 | 0.720 | 0.166±0.090 | 0.184 | 0.896 |