

| Electrode | $C_{dl}^a / \mu F$ | GSA / cm^2 | RSA / cm^2 | Roughness factor | $C_{SA}^b (GSA) / \mu F cm^{-2}$ | $C_{SA}^b (RSA) / \mu F cm^{-2}$ |
|---------------|--------------------|--------------|--------------|------------------|----------------------------------|----------------------------------|
| GC-GDY | 8.9 | 0.0314 | 0.68 | 21.8 | 987 | 45.60 |
| GC-GDY-PpCANI | 7.3 | 0.0314 | 0.56 | 17.9 | 1760 | 98.60 |
| GC-PpCANI | 0.49 | 0.0314 | 0.037 | 1.2 | 51.60 | 43.80 |
| GC | 0.55 | 0.0314 | 0.0423 | 1.3 | - | - |

GSA: Geometric surface area

RSA: Real surface area

a. Values obtained from impedance measurements (Figure 5).

b. Values obtained from cyclic voltammetry (Figure 4A).