

## Supporting Information

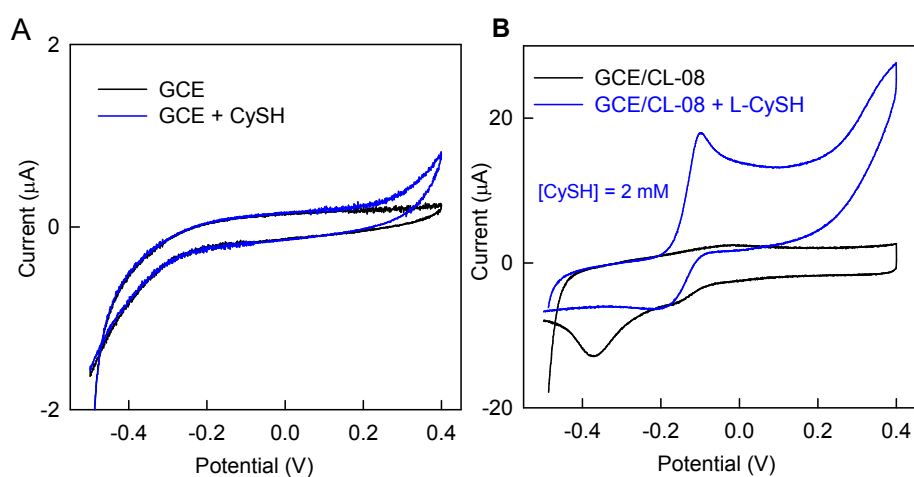
### Selective and low potential electrocatalytic oxidation and sensing of L-Cysteine using metal impurity containing carbon black modified electrode

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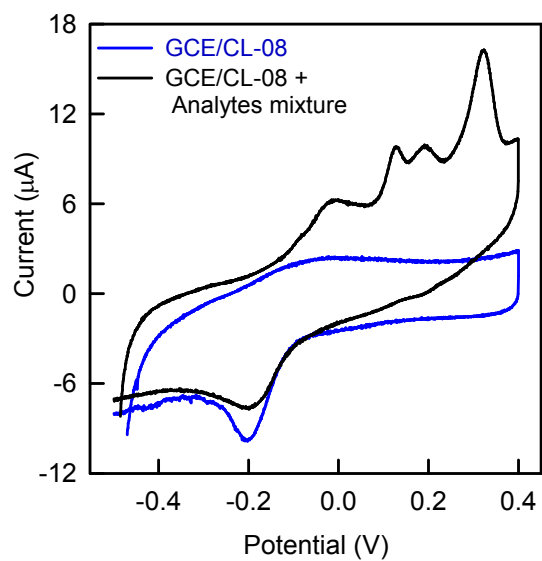
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**Figure S1.** CV responses of A) GCE and B) GCE/CL-08 in the absence and presence of 2 mM L-CySH in the optimal potential window -0.5 to 0.4 V vs Ag/AgCl in pH 6.65 PBS at  $v = 10 \text{ mV s}^{-1}$ .



**Figure S2.** CV responses of GCE/CL-08 in the absence and presence of mixture of 1 mM of analytes in the optimal potential window at  $\nu = 10 \text{ mV s}^{-1}$ .