

**E2-55: Detection of chloroquine phosphate using 5,10,15,20 tetraphenylporphyrinatoiron (III) chloride-modified glassy carbon electrode**

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The electrochemical behaviour of Chloroquine phosphate on the glassy carbon electrode modified with 5,10,15,20-tetraphenyl porphyrinato iron (III) chloride is significantly different from that of the bare electrode. Chloroquine phosphate was completely inactive within the working potential range of the bare glassy carbon electrode whereas, it is reduced at -0.35 V vs. SCE at the modified electrode. Amperometry at the modified electrode gives reproducible results at fairly low concentration values, and the lower detection limit of the sensor is found to be  $4 \times 10^{-5} \text{ mol dm}^{-3}$ .

Therefore, glassy carbon electrodes modified with 5,10,15,20-tetraphenylporphyrinato iron (III) chloride can be used as a sensor for the detection of this clinical substance.