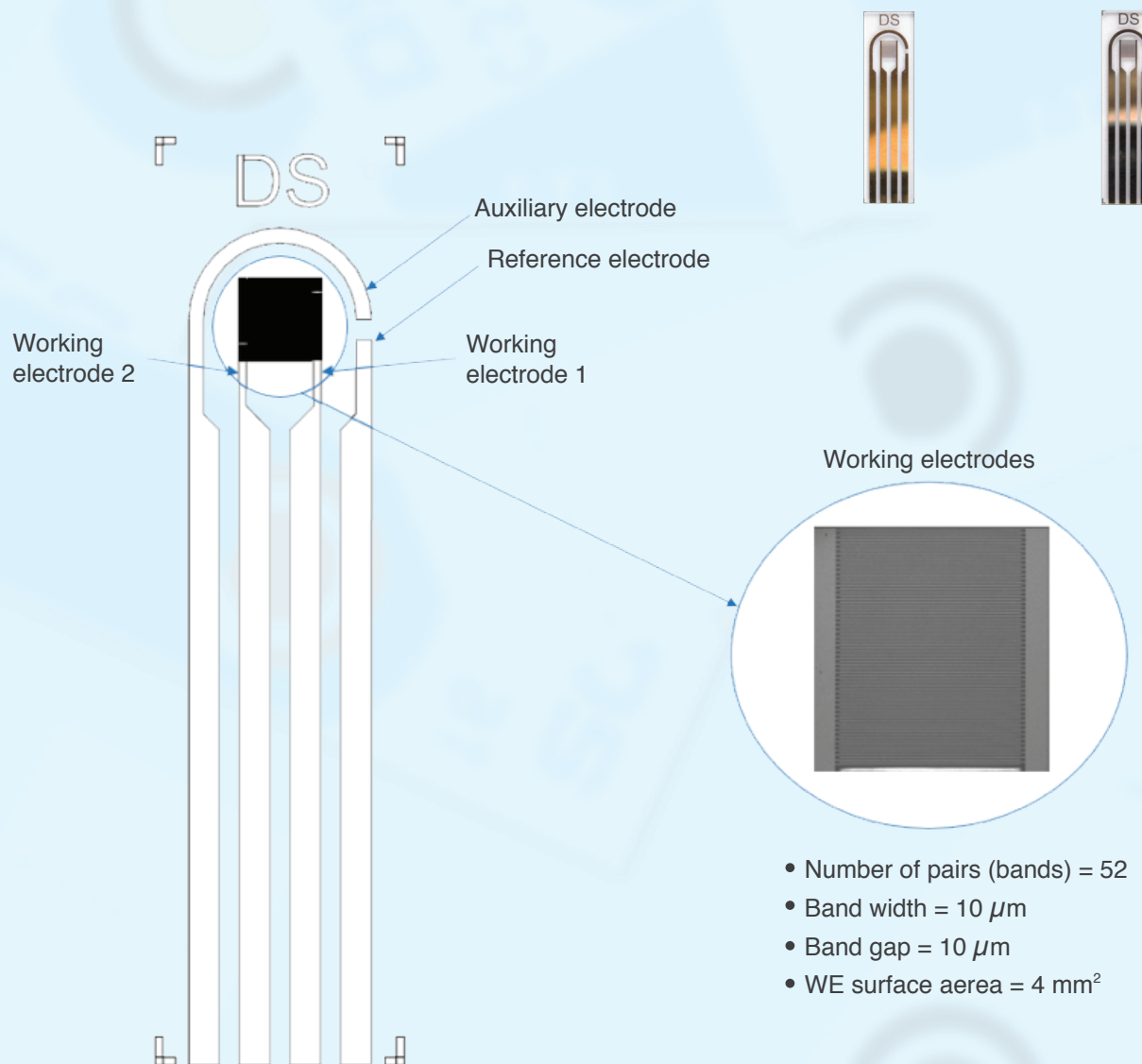*DropSens* **InterDigitated Gold** (ref. G-IDE222) and **Platinum** (Ref. G-IDE555) **electrodes** are composed of two working electrodes, an auxiliary electrode and a reference electrode, all manufactured in the same material, on a glass substrate by optical lithography technology.

Auxiliary electrode

Reference electrode

Working electrode 2

Working electrode 1

Working electrodes

- Number of pairs (bands) = 52
- Band width = 10 μm
- Band gap = 10 μm
- WE surface aerea = 4 mm^2

InterDigitated electrodes are particularly interesting because their geometric differences from conventional electrodes result in a specific electrochemical behaviour. The working electrodes are composed of **52 pairs** (bands), with **a band gap and a band width of 10 μm**.

This geometry allows species generated at one band electrode to be collected at adjacent band electrode (generator/ collector) when the potential is set to a level at which reverse reaction can occur.

This "feedback effect" makes the currents of both the generator and collector electrodes larger, enhancing sensitivity and detection limits.
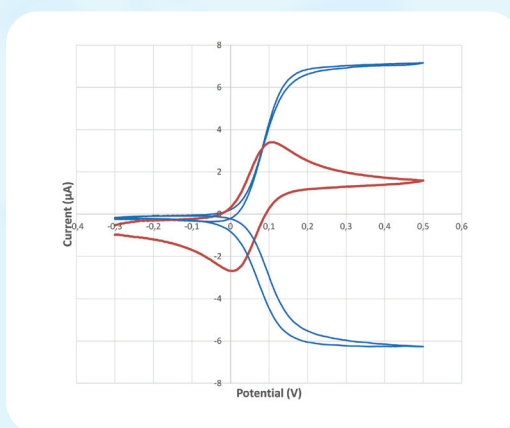
Generator: Cyclic voltammetry between -0.3 V and 0.5 V at a scan rate = 10 mV/s.
Collector: Amperometric detection at constant potential = -0.3 V. $K_4Fe(CN)_6$ 1 mM
in H_2SO_4 0.1M using G-IDE222 interdigitated array of gold electrodes.
*Collection efficiency = 86 %
*Collection efficiency calculated as the ratio
of currents at the generator and collector electrodes.

Note: This electrode is a very sensitive product. Do not touch the pattern area of the electrode directly as it could be scratched and provide non expected results. If you need to clean the electrode, rinse carefully with ethanol and/or acetone, do not use ultrasonic cleaner, strong acid or basic solutions or any other organic solvent. Store the product at room temperature, protected from light in a dry place.

Interdigitated array of electrodes are commercialised in 20 units packs.

Also, specific cable connector that acts as an interface between interdigitated array of electrodes and any potentiostat (ref. CACIDEMEA) is available at *DropSens.*

Related products

G-IDEAU5	G-IDEPT10	G-IDECONAU10	G-IDECONPT10	STAT400	CACIDEMEA

Full Catalogue

Contact Form

DS

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