

Supplementary Information for

Gold–glutathione supramolecular hydrogels

Ibon Odriozola,* Iraidia Loinaz, José A. Pomposo and Hans J. Grande

CIDETEC Centre for Electrochemical Technologies, Parque Tecnológico de San Sebastián, Paseo Miramón 196, 20009 Donostia-San Sebastián, Spain

* To whom correspondence should be addressed. E-mail: iodriozola@cidetec.es

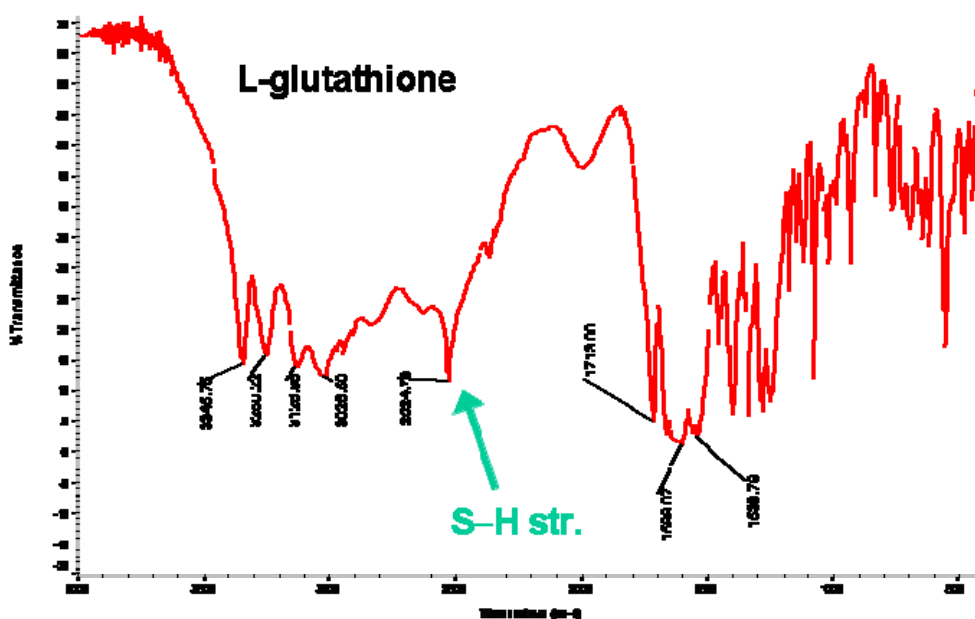
Preparation of GS–Au hydrogel (1% w/w)

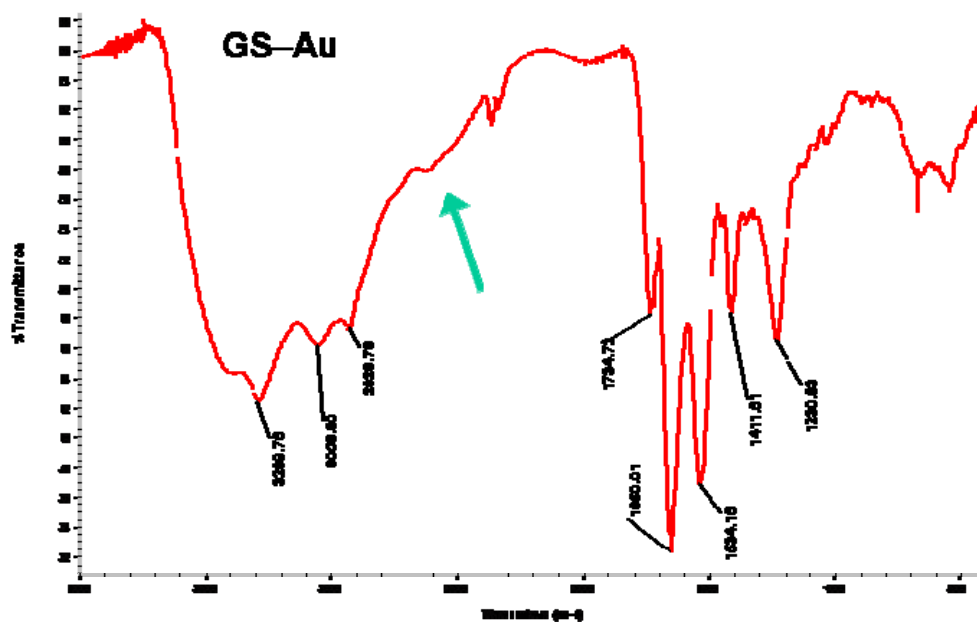
HAuCl₄·3H₂O (99 mg, 0.25 mmol) is dissolved in H₂O (5 mL) and added to a solution of glutathione (230 mg, 0.75 mmol) in H₂O (10 mL). After stirring for a few seconds a colourless solution is formed. Then NaOH 1N (0.5 mL, 0.5 mmol) is added and a gel forms immediately.

For IR, SEM and EDS analysis, the gel is diluted in HCl 0.001 N. The resulting suspension is then centrifuged and washed several times with HCl 0.001 N. The product is lyophilised to give a white solid. The solid can be redissolved in water, and will form a gel at pH 1.8-2.4.

Infrared (IR)

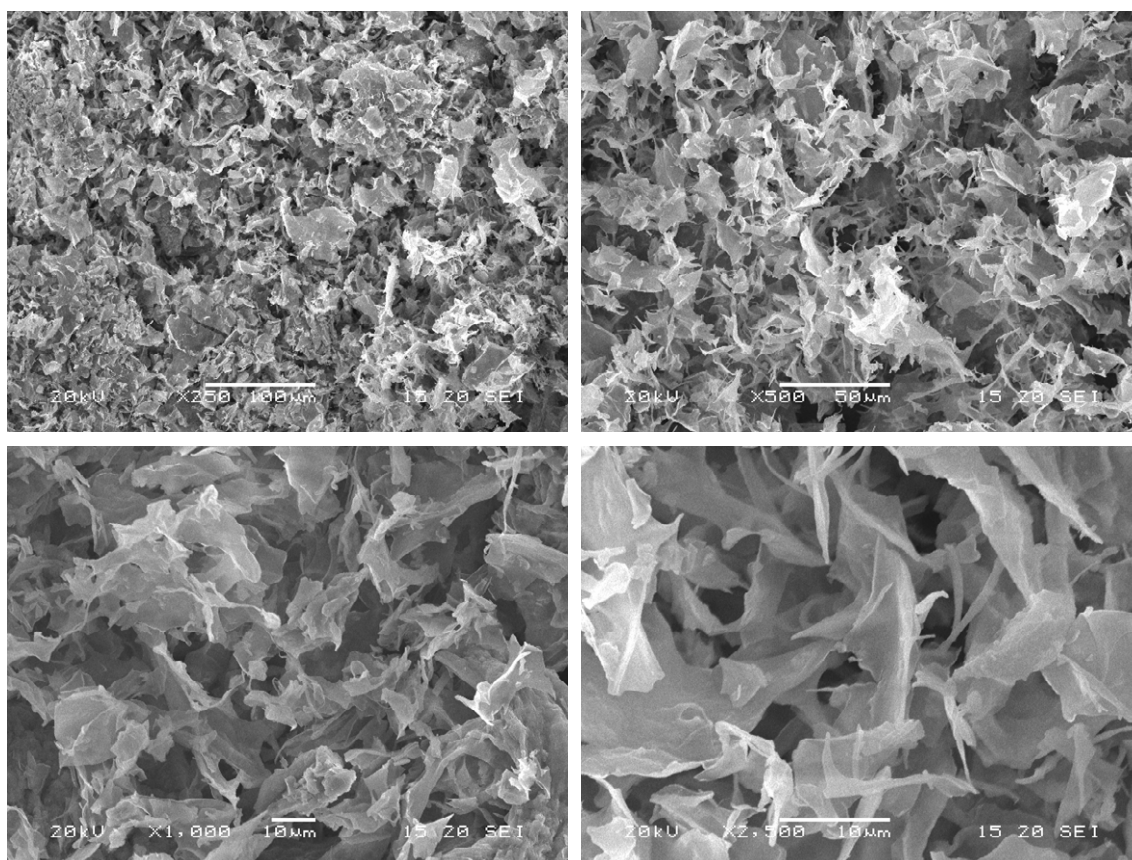
Commercial L-glutathione and lyophilised GS–Au were analysed on a Nicolet Avatar 360 spectrophotometer (KBr disk).





Scanning Electron Microscopy (SEM)

A lyophilised sample was coated with gold and analysed on a JEOL JSM 5910-LV microscope working at an accelerating voltage of 20kV.



Energy dispersive X-ray spectroscopy (EDS)

Analysis was performed on an INCA-300 model from OXFORD.

All results in atomic percent

	C	N	O	S	Au	Total
zone 1	56.33	10.10	18.28	8.47	6.82	100.00
zone 2	57.77	10.20	17.98	7.56	6.49	100.00
zone 3	55.20	9.58	20.22	8.39	6.60	100.00

	C	N	O	S	Au
Max.	57.77	10.20	20.22	8.47	6.82
Min.	55.20	9.58	17.98	7.56	6.49

All results in weight percent

	C	N	O	S	Au	Total
zone 1	24.83	5.19	10.73	9.96	49.28	100.00
zone 2	26.22	5.40	10.87	9.16	48.35	100.00
zone 3	24.65	4.99	12.03	10.00	48.33	100.00

	C	N	O	S	Au
Max.	26.22	5.40	12.03	10.00	49.28
Min.	24.65	4.99	10.73	9.16	48.33

