

## Electronic Supplementary Information

### Portable, disposable, and low-cost optodes for sulphide and thiols detection

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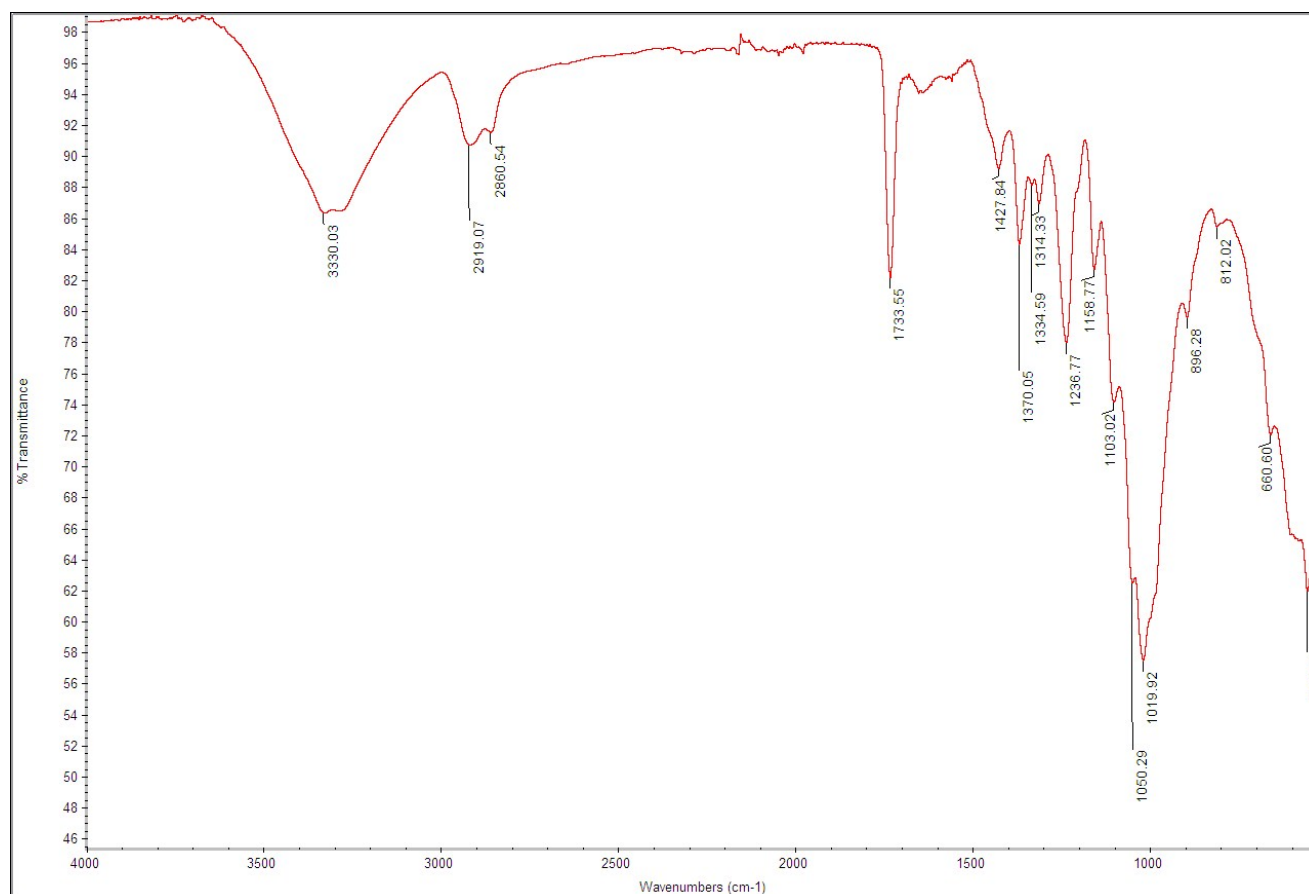
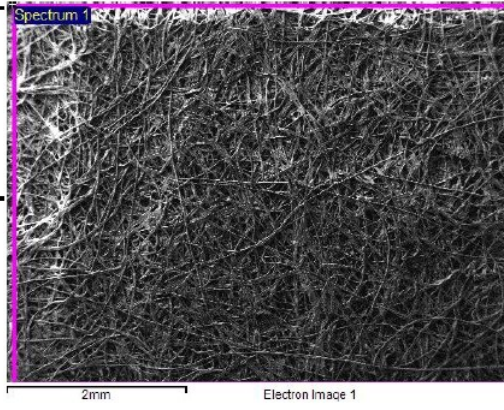
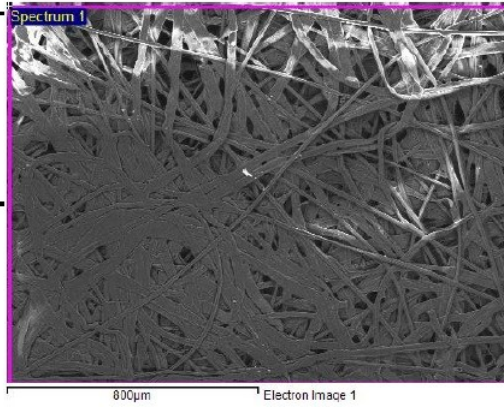


Figure s1 – ATR-IR spectrum of CC.

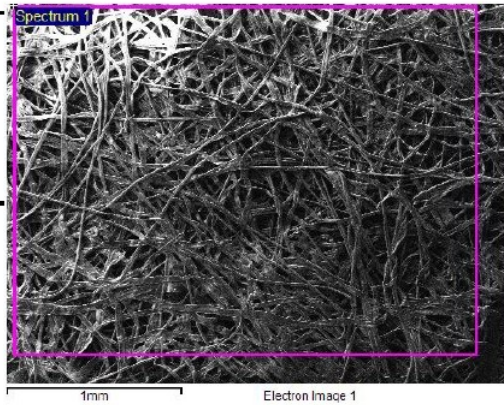
Element	App Conc.	Intensity Corm.	Weight %	Weight % Sigma	Atomic %
C K	41.76	0.9550	50.55	0.37	58.20
O K	22.73	0.5549	47.33	0.37	40.92
Na K	0.15	0.7573	0.23	0.04	0.14
Cl K	1.35	0.8254	1.89	0.05	0.74
Totals			100.00		



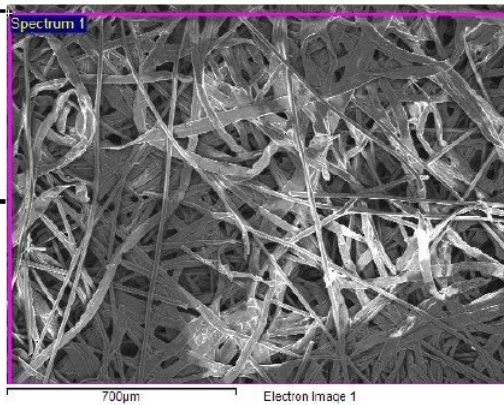
Element	App Conc.	Intensity Corm.	Weight %	Weight % Sigma	Atomic %
C K	64.09	0.9990	50.06	0.30	57.60
O K	34.97	0.5651	48.27	0.30	41.70
Na K	0.20	0.7525	0.20	0.03	0.12
Cl K	1.55	0.8244	1.47	0.03	0.57
Totals			100.00		



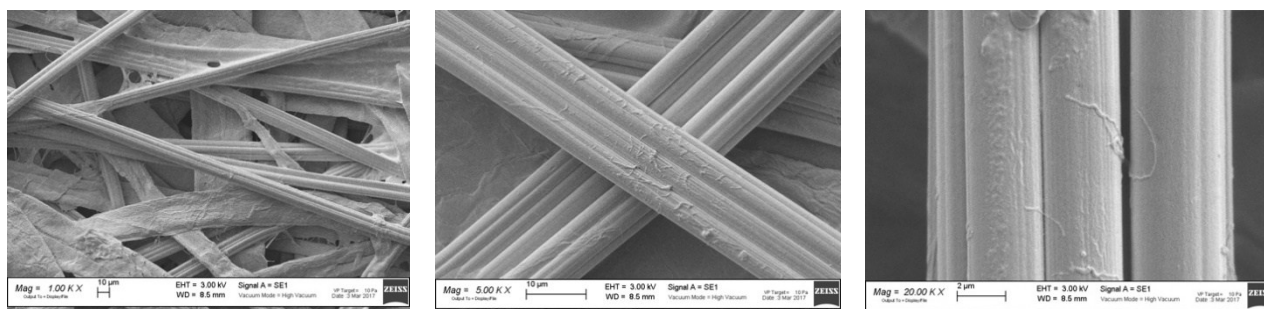
Element	App Conc.	Intensity Corm.	Weight %	Weight % Sigma	Atomic %
C K	54.22	0.9892	49.47	0.32	57.03
O K	30.90	0.5714	48.80	0.32	42.24
Na K	0.19	0.7503	0.23	0.04	0.14
Cl K	1.38	0.8242	1.51	0.04	0.59
Totals			100.00		



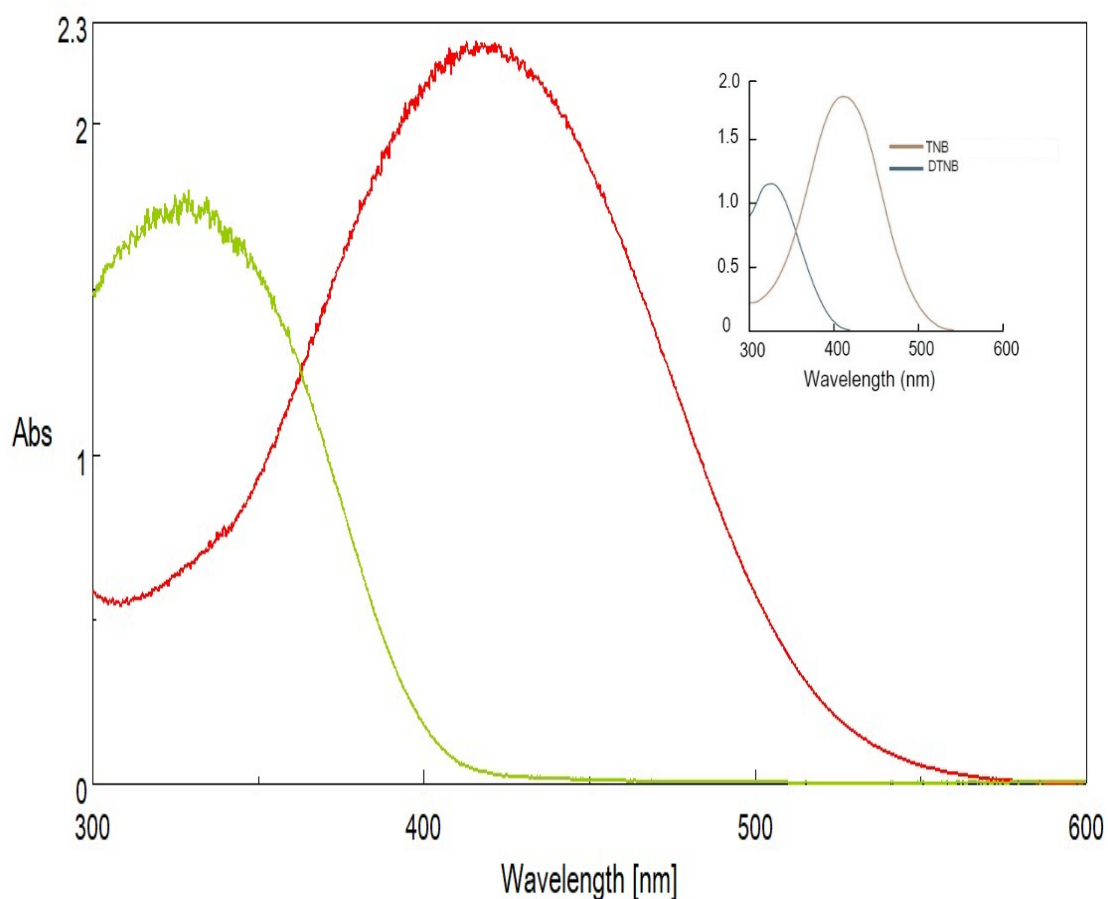
Element	App Conc.	Intensity Corm.	Weight %	Weight % Sigma	Atomic %
C K	58.62	1.0064	49.66	0.33	57.19
O K	32.62	0.5707	48.72	0.33	42.12
Na K	0.21	0.7506	0.24	0.04	0.15
Cl K	1.33	0.8241	1.37	0.04	0.54
Totals			100.00		



**Figure s2** – SEM images with different magnification and the corresponding EDX analysis.



**Figure s3** - Electronic microscope imagines of the bare Colour Catcher® at different magnification order.



**Figure s4** – UV-vis spectra of the ELL-CC (DTNB fixed on the CC, green line) and of the product TNB-CC (red line) obtained after reaction with sulphides or thiols. The spectra in the box are the same obtained in solution.