# Development of an innovative soft piezoresistive biomaterial based on the interconnection of elastomeric PDMS networks and electrically-conductive PEDOT:PSS sponges

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**N° of PAGES** 3

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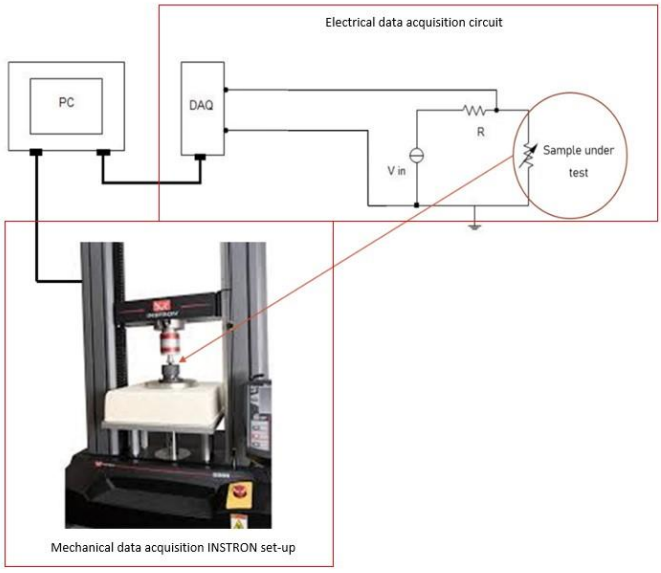


**Figure S1.** Experimental set-up employed to perform the electromechanical characterizations on all samples tested.

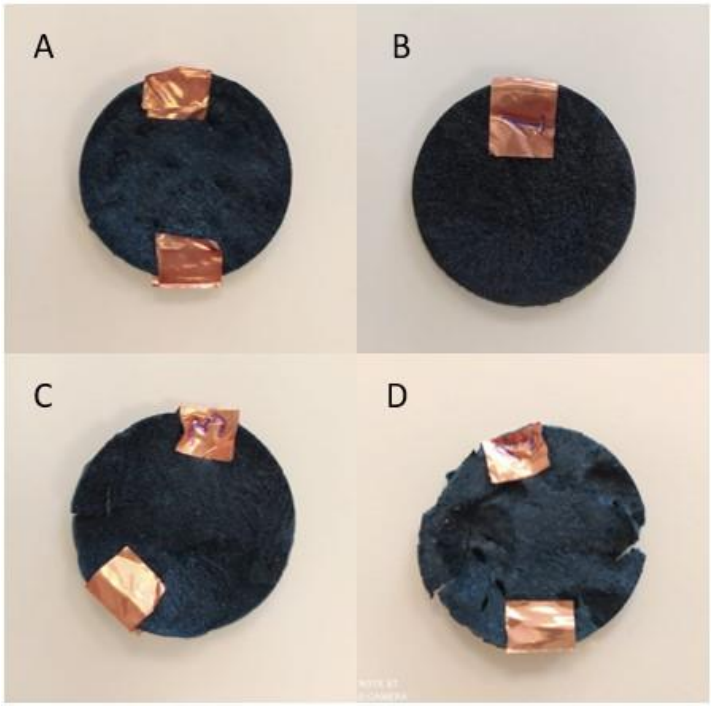


**Figure S2.** Samples after 4 cycles of compressive mechanical test, showing an increasing loss of integrity and original shape for higher concentrations of GPTMS (A) PEDOT_GPTMS 1% (B) PEDOT_GPTMS 1% / PDMS (C) PEDOT_GPTMS 2% (D) PEDOT_GPTMS 3%.

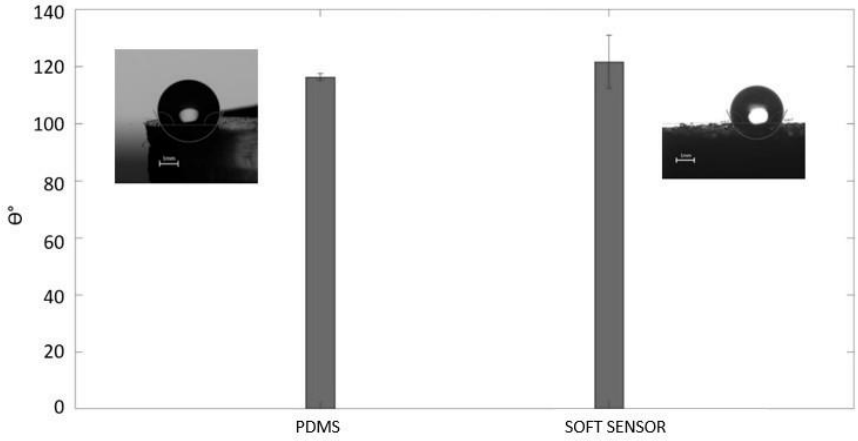


**Figure S3.** WCA value and drop images for native PDMS (left) and PEDOT_GPTMS 1% / PDMS (right).

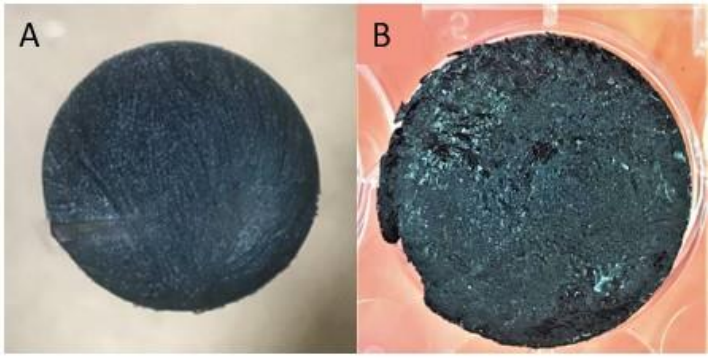


**Figure S4.** Frontal photo of (A) PEDOT_GPTMS 1% (B) PEDOT_GPTMS 1% / PDMS showing that no insulating PDMS film forms on the surface.

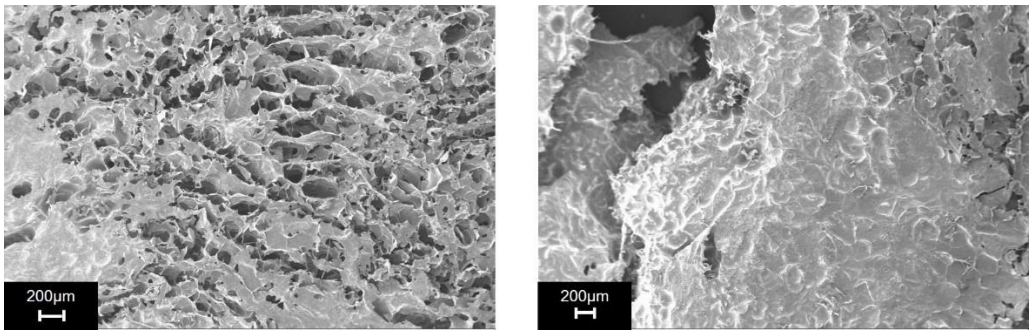


**Figure S5.** SEM images of PEDOT_GPTMS 1% / PDMS obtained through (left) 5 min immersions in two separate wells (right) 48h leave-in method.