

## Supporting Information

### A Surface Plasmon Resonance Plastic Optical Fiber Biosensor for the Detection of Pancreatic Amylase in Postoperative Fluids.

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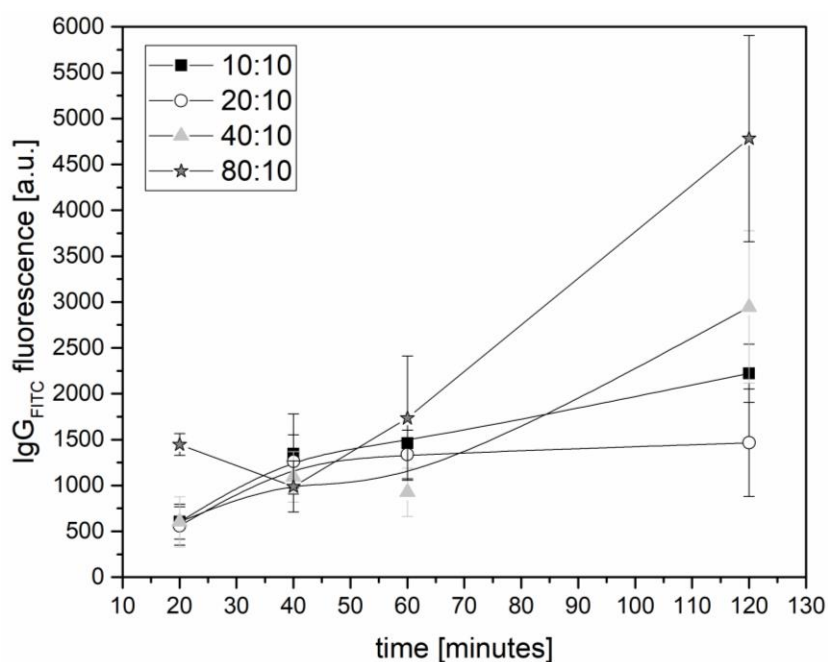


Figure S 1: IgG<sub>FITC</sub> fluorescence on gold substrates functionalized with  $\alpha$ -lipoic acid and different molar ratio (mM) of EDC:sulfoNHS as a function of time. Data are reported as mean value of five images acquired on the samples and error bars represent standard deviation.

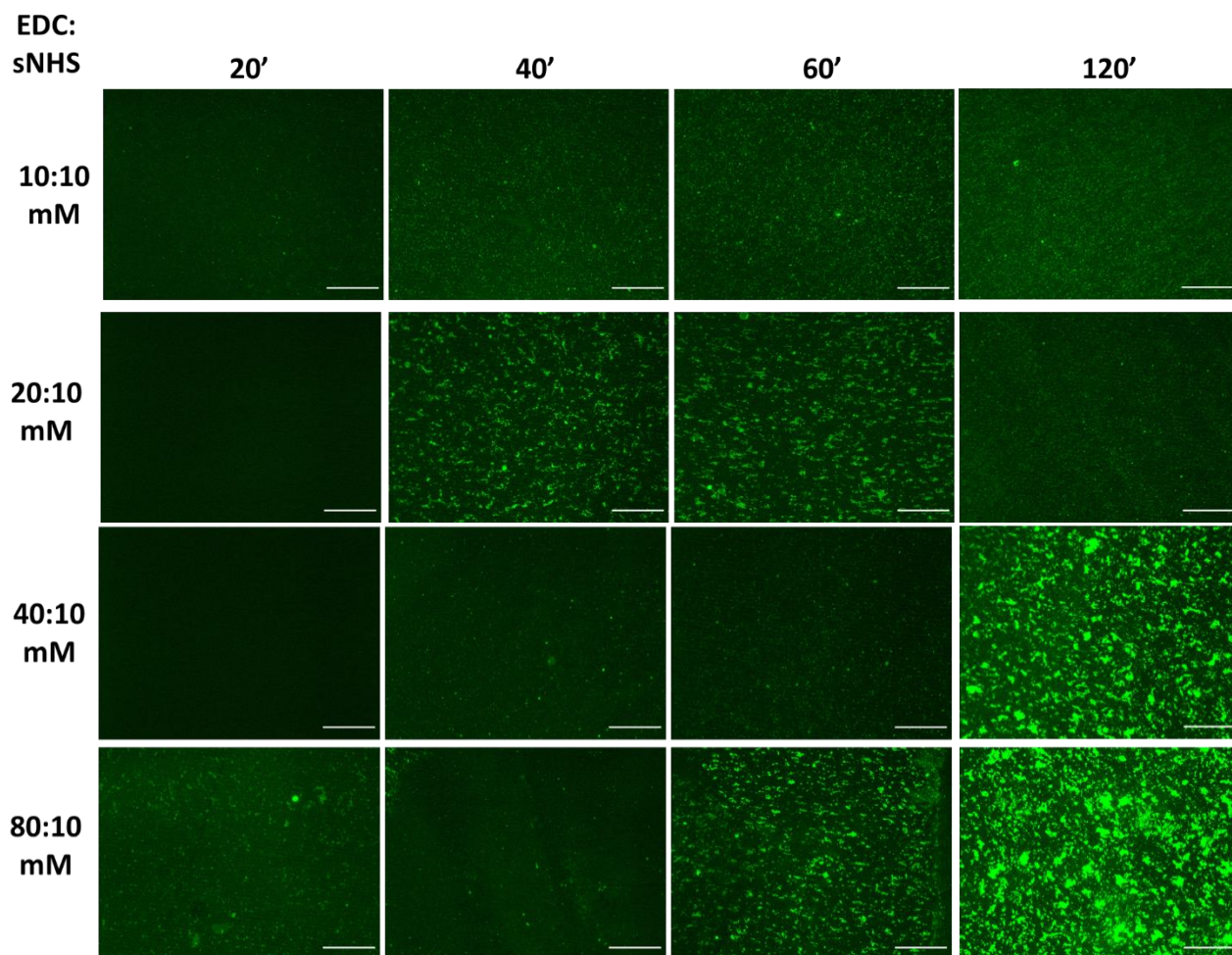


Figure S2: Fluorescence images of IgG<sub>FITC</sub> antibody incubated at 5  $\mu$ g/sample for different times (20 ÷ 120 minutes) on samples with different EDC:sulfoNHS molar ratio and acquired at 20X magnification objective. Scale bar is 100  $\mu$ m.

Table S1: Fitting parameters of the Langmuir curves  $y=A*x/(B+x)$  reported in Figure 2.

Time [minutes]	A	B	Correlation coeff.
20	2738.31	29.92	0.95
40	2180.53	6.64	0.98
60	2831.44	5.65	0.94
120	3204.55	5.76	0.99

Table S2: XPS characterization at 60° take-off angles on bare gold surface (Au), after  $\alpha$ -lipoic acid coating (Au+SAM) and after antibody immobilization (Au+SAM+IgG<sub>AMY</sub>). XPS standard error does not exceed the 1–2% of the reported value.

	O 1s (%)	N 1s (%)	C 1s (%)	S 2p (%)	Au 4f (%)
<b>Au</b>	15.3	-	32.1	-	52.6
<b>Au+SAM</b>	12.2	-	51.5	3.3	32.0
<b>Au+SAM+IgG<sub>AMY</sub></b>	18.3	7.8	57.5	2.0	14.3

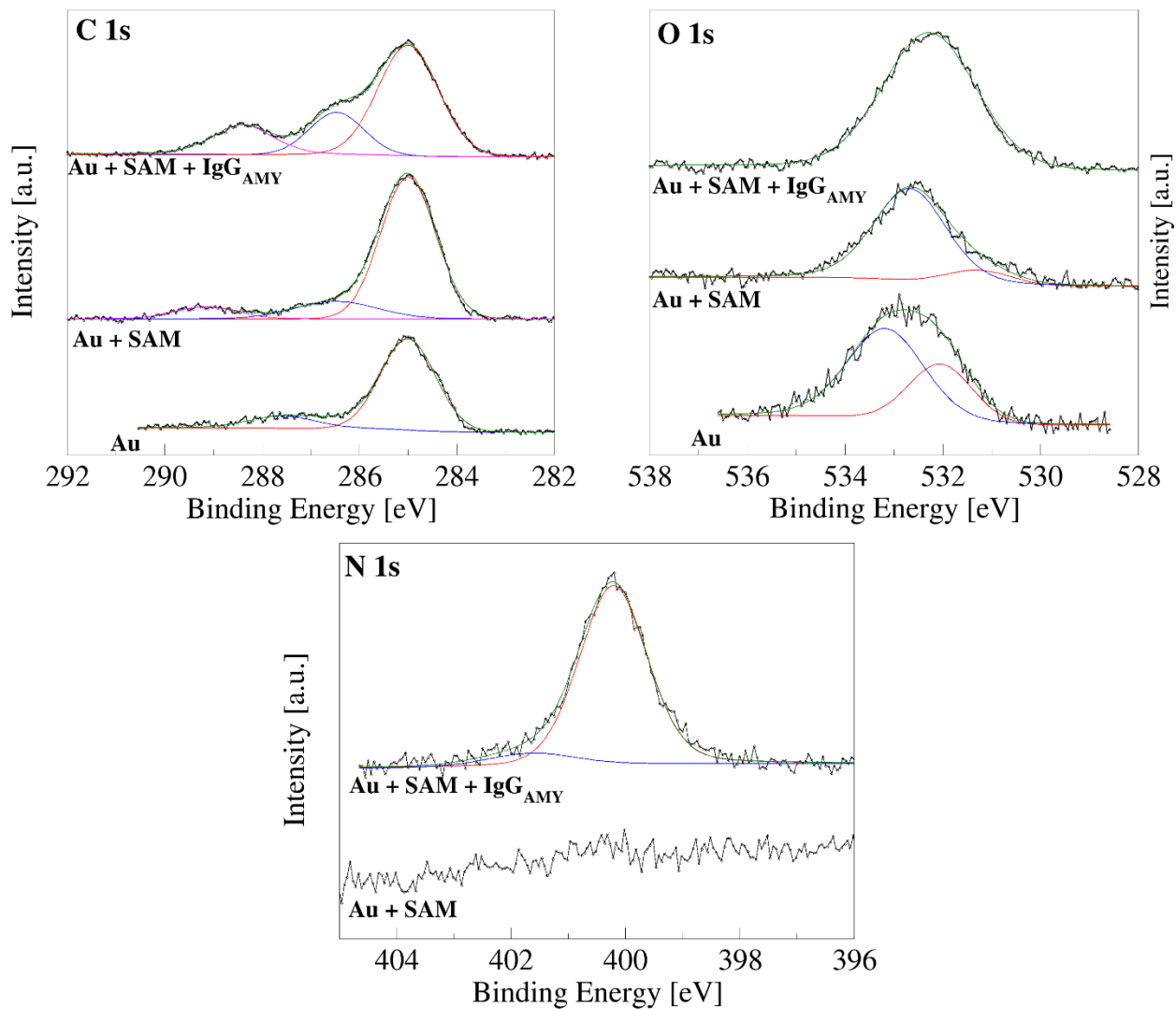


Figure S3: Main core line levels of different samples reported in Table S2 at 60° take-off angle.

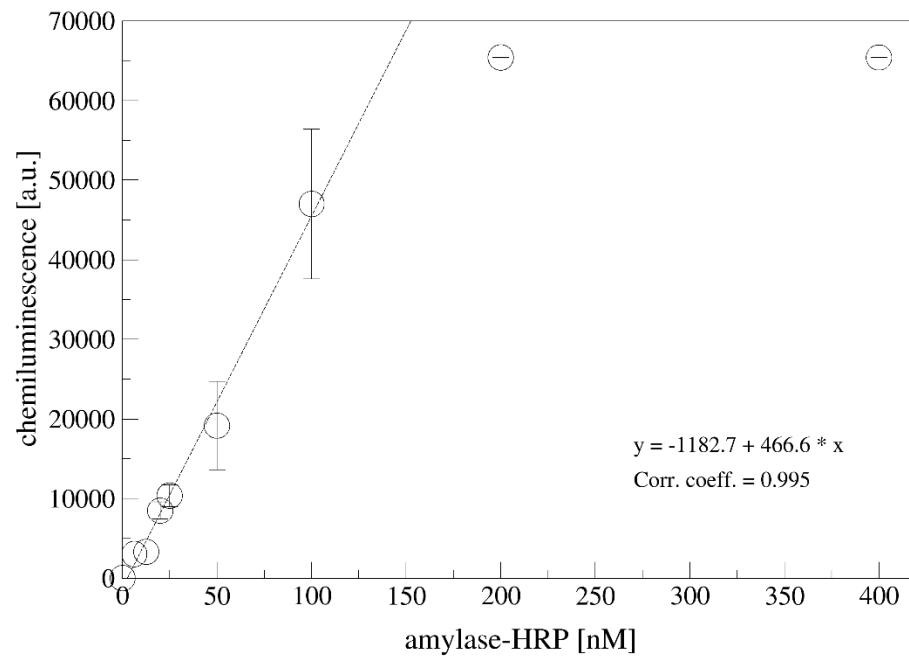


Figure S4: HRP-amylase calibration curve. Data are reported as mean value of four experiments and error bars represent standard deviation.