

# Catalysis on nanostructured indium tin oxide surface for fast and inexpensive probing of antibodies during pandemics

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## Supplementary information

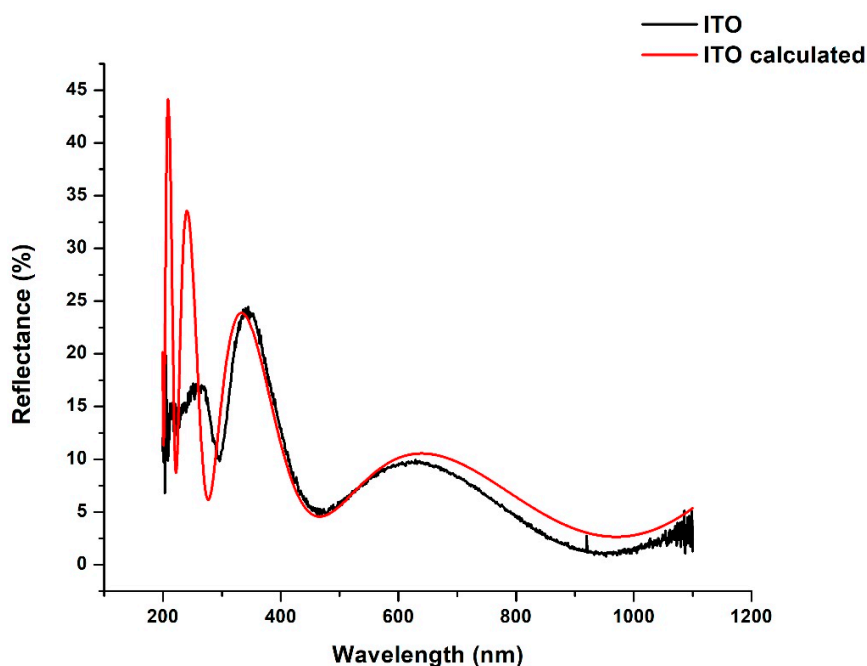


Figure S1. Spectral reflectance section thickness measurement. Reflectance spectrum and the best fit curve for the data.

The thickness of the ITO layer coated on the glass slide was measured with an F40-UV reflectometer (Filmetrics1, USA) in the “contact stage” mode. Measurement details were calculated with FILMETRICS software. The black line on the graph represents the measured reflectance data, and the red line on the graph shows the calculated reflectance (based on the indicated refractive indices, extinction coefficients, and approximate thicknesses of the ITO coated on the glass slide). A successful measurement is indicated

by an overlap of the wavelengths of the maxima and the minima of the two curves associated with both the calculated and the measured reflectance.

**Table S1: Composition of FBS used**

	Component	Average (ng/ml)
1	BSA protein and antibodies other than SARS COVID antibodies	3.80E+07
3	Albumin	2.30E+07
4	Glucose	1.25E+06
5	Cholesterol	3.10E+05
6	Urea	1.60E+05
7	Hemoglobin	1.13E+05
8	Phosphate, Pi	9.80E+04
9	Creatinine	3.10E+04
10	Urate	2.90E+04
11	Bilirubin, total	4.00E+03
12	Bilirubin, direct	2.00E+03
13	Lactate-dehydrogenase, LDH	8.64E+02
14	Alkaline Phosphatase	2.25E+02
15	Sodium, Na <sup>+</sup>	1.37E+02
16	Aspartate-Aminotransferase, ASAT	1.30E+02
17	Chloride, Cl <sup>-</sup>	1.07E+02
18	Vitamin A	9.00E+01
19	Growth hormone	3.90E+01
20	Endotoxins (LPS) such as O-antigen, core OS, Lipid A	3.50E+01
21	Selene	2.60E+01
23	Potassium, K <sup>+</sup>	1.12E+01
24	Calcium, Ca <sup>2+</sup>	6.75
25	Prostaglandin E	5.9
26	Parat hormone, PTH	1.72

27	Thyroid-Stimulating hormone, TSH	1.22
28	Triiodothyronine, T3	1.2
29	Vitamin E	1.1
31	Cortisol	0.5
32	Testosterone	4.00E-01
33	Prolactin = Luteotropic hormone, LTH	1.76E-01
34	Prostaglandin F	1.23E-01
35	Thyroxine, T4	1.20E-01
36	Follicle-stimulating hormone, FSH	9.50E-02
37	Progesterone, P4	8.00E-02

The compounds in the table are sorted in order of their concentration, however we tried to put different material that have some similarity in their structure broadly in the same category by having same colour codes for them. E.g. the inorganic ions are in blue colour and proteins are all in brown colour.