Table S3: The fitted circuit [R(C[RW])] values derived from Nyquist plot for modified working electrode.[1]

Working Electrode	R1 (Ω)	R2 (Ω)	W(Y0) (mMho)	*Cdl* (µF)	χ^2	i_o (µAcm^{-2})	*K_{app}* (cm s^{-1})
FTO/FeMOF	43.3	659	8.79	11.9	0.90747	108.3	2.24 x 10^{-4}
FTO/FeMOF@PdNR	60.1	308	6.48	6.97	7.7591	231.7	4.8 x 10^{-4}
FTO/FeMOF@PdNR/PDA	59.6	257	12.3	6.28	8.4085	277.7	5.75 x 10^{-4}
FTO/FeMOF@PdNR/PDA/ antiMUC1Ab	60.4	476	7.75	6.32	8.2729	150	3.1 x 10^{-4}
FTO/FeMOF@PdNR/PDA/ antiMUC1Ab/MCH	49.8	526	5.92	7.42	9.2615	135.7	2.81 x 10^{-4}

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[1]R1: solution resistance, R2: charge transfer resistance (Rct) at an electrode surface, W: Warburg element accounting for mass transfer phenomena of diffusion of species in electrochemical system, *Cdl*: double-layer capacitance at the same interface, χ^2 – Chi-Square, a statistical measure that shows the goodness of fit of an equivalent circuit to the experimental EIS data, i$_o$: exchange current density, *K_{app}*: apparent electron transfer rate constant.