

Electrochemical co-deposition of conductive polymer/silica hybrid thin films

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Supporting Information

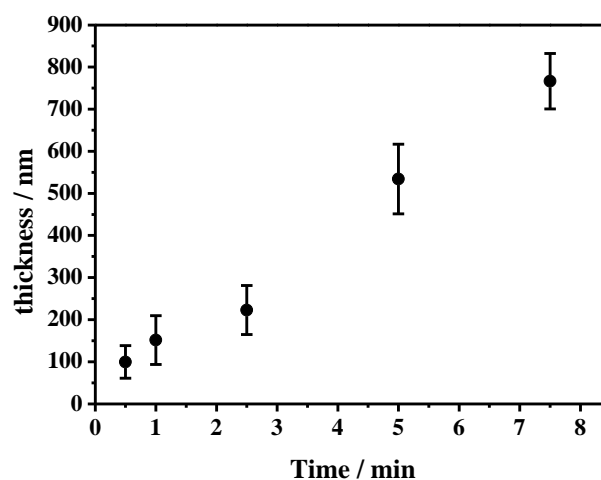


Fig. S1 Step-height measurements using profilometry for polypyrrole films prepared at a constant potential of 1.3 V for different duration. The deposition solution contained 0.25 M TMOS, 0.01M pyrrole, 0.1 M LiClO₄ and the pH was adjusted to 3.5 by HClO₄.

Tab. S1 Element percentage of bare stainless steel after cleaning and sputtering with Au/Pd for 50 s as measured by EDX.

Element	C	N	O	Si	Cl	Cr	Fe	Ni	Au	Pd
Avg.	11.57	0.53	2.62	0.39	0.14	15.58	54.64	7.11	4.92	2.50
Stdev.	0.55	0.52	0.12	0.18	0.10	0.55	0.27	0.15	0.06	0.18

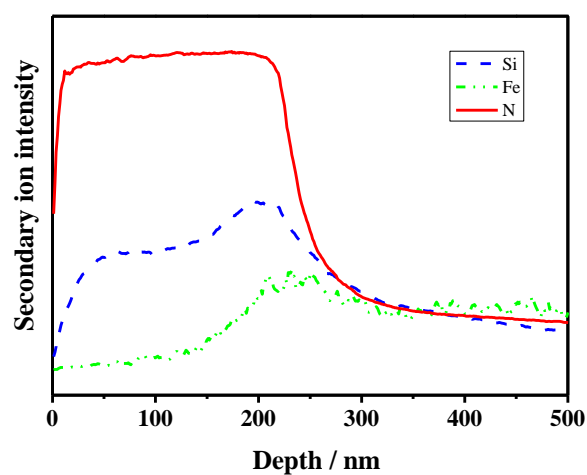


Fig. S2 The depth profile of elements as derived from SIMS for the samples prepared at 1.5V for 90 s followed by -1.5V for 300 s.

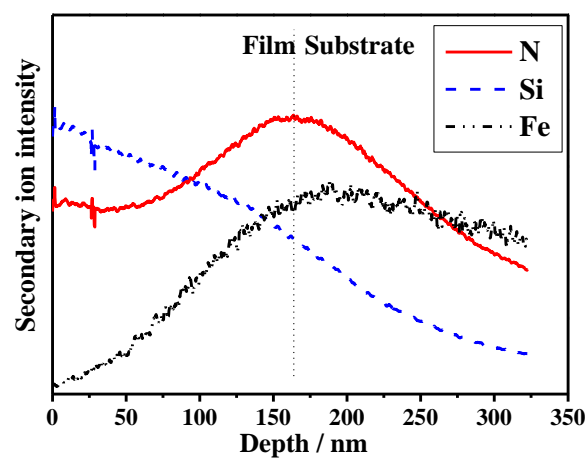


Fig. S3 The depth profile of elements as derived from SIMS for the samples prepared at -1.5 V for 15 s followed by 1.5V for 300 s.