Supplementary Material

Tuning Polyaniline Doped with Poly(4-styrenesulfonic acid) (PANI:PSS) as Nano-Drug Carrier for Insulin Delivery

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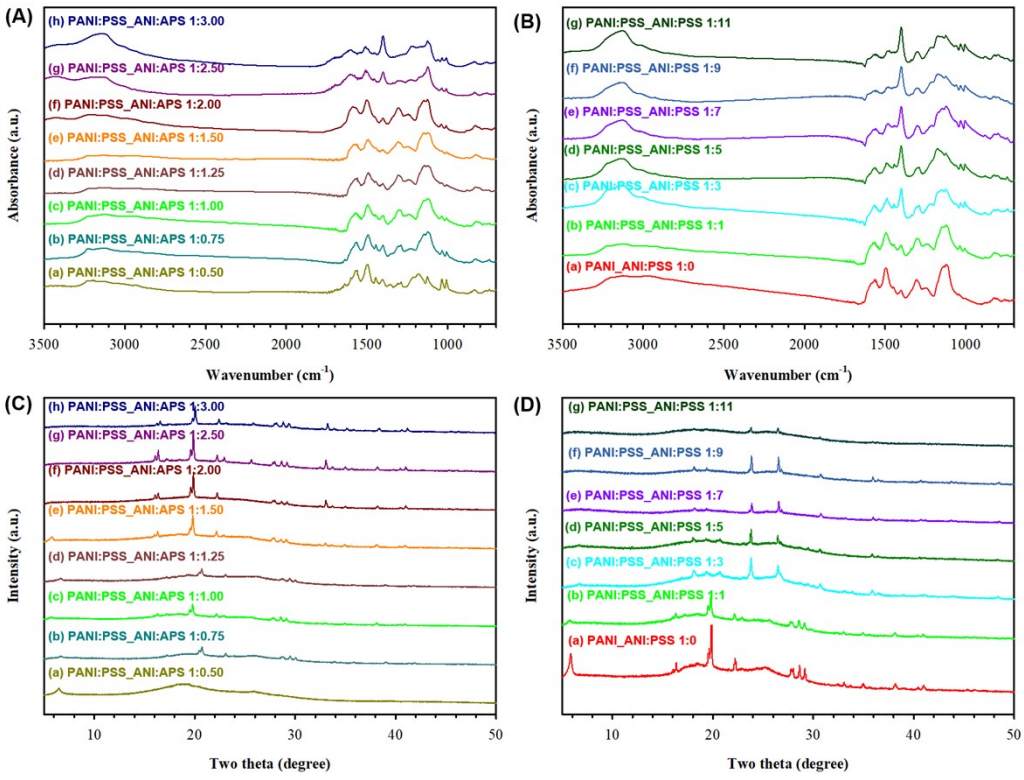

Fig. S1 FTIR spectra and XRD diffractograms of PANI:PSS under the effects of: (A) and (C) ANI:APS mole ratios; and (B) and (D) ANI:PSS wt ratios.

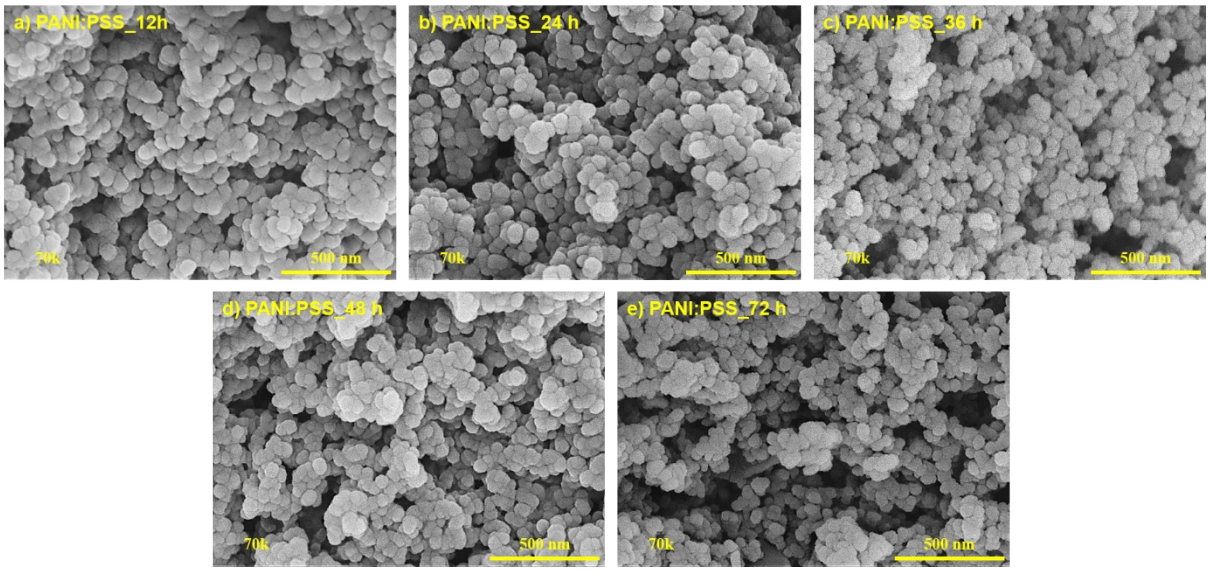

Fig. S2 SEM images of PANI:PSS synthesized at various polymerization times.

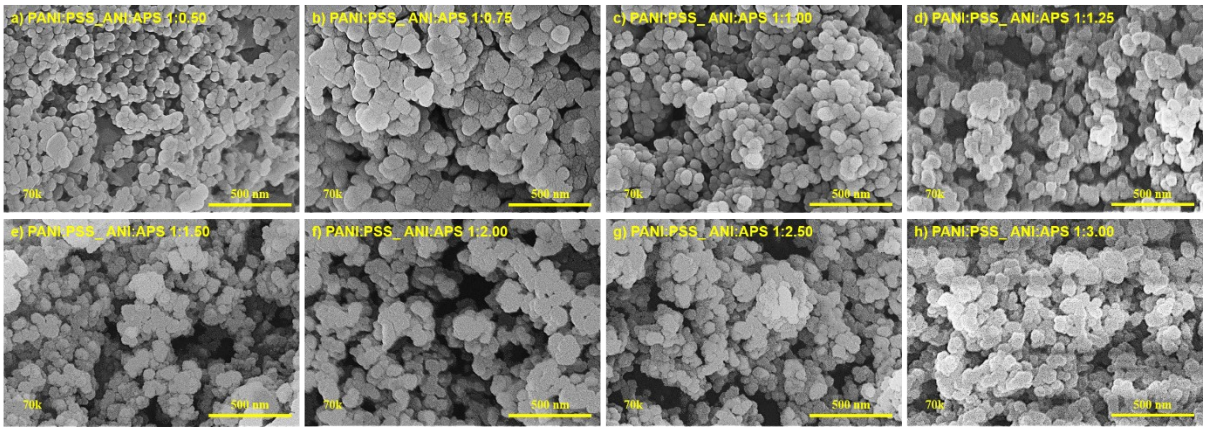

Fig. S3 SEM images of PANI:PSS synthesized at various ANI:APS mole ratios.

Table S1 Elemental compositions from XPS survey scan spectra of PANI and PANI:PSS with different structure forms

Samples	O1s	N1s	C1s	S2p
PANI	23.84	4.07	70.58	1.50
PANI:PSS (Emeraldine)	30.12	7.58	57.22	5.09
PANI:PSS (Leucoemeraldine)	21.29	2.24	74.94	1.53
PANI:PSS (Pernigraniline)	21.41	6.85	69.67	2.06

Table S2 Thermal analysis data of the Insulin-PANI:PSS

Sample	T_d @ 1st step (ºC)	T_d @ 2nd step (ºC)	T_d @ 3rd step (ºC)
PANI:PSS	72.7	336.2	391.5
Insulin pure	46.9	312.9	-
Insulin-PANI:PSS (0.5:1.0)	68.0	281.4	436.4
Insulin-PANI:PSS (1.0:1.0)	81.1	316.5	460.6
Insulin-PANI:PSS (3.0:1.0)	85.9	314.5	458.3
Insulin-PANI:PSS (mix)	44.2	309.8	390.5