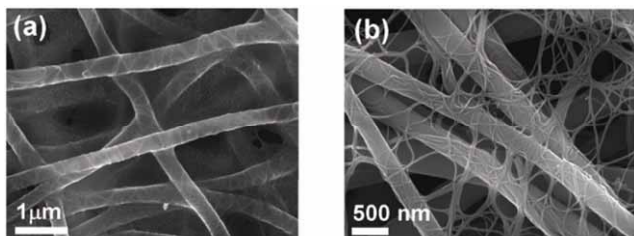


Three-Dimensional Architecture of Carbon Nanotube-Anchored Polymer Nanofiber Composite

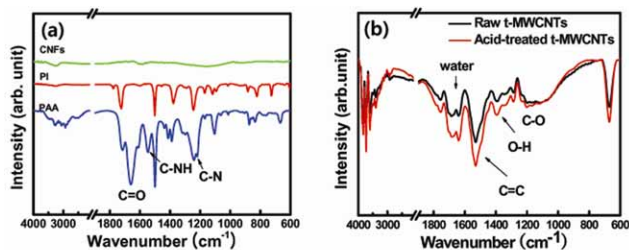
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10 Figure S1. SEM images of 3D-architected SWCNTs/ PAA nanofiber composite mat of which SWCNTs was dispersed in DI water with an assistance of SDS surfactant (a) before and (b) after SDS washing by rinsing the composite mat in DI water. The morphology of composite was different in the case of SWCNTs. The composite was similarly fabricated
15 by using SWCNTs / SDS water solution. After washing SDS, the SWCNT bundle size became larger due to van der Waals attraction-induced reaggregation. It is noted here that unlike the case of MWCNT composite, the SWCNTs were completely wet onto the PAA nanofibers. The SWCNT bundles were long and rigid so that they form 3D bridges
20 among PAA nanofibers.



25 Figure S2. (a) FT-IR spectra of PAA, PI, and CNFs. PAA has numerous functional groups. (b) FT-IR spectra of t-MWCNTs and acid treated t-MWCNTs. Acid-treated t-MWCNTs has more functional groups such as hydroxyl and carbonyl groups

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