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SUPPLEMENTARY INFORMATION

Conductive Peptide Nanotube Networks via Enzyme Triggered Self-assembly

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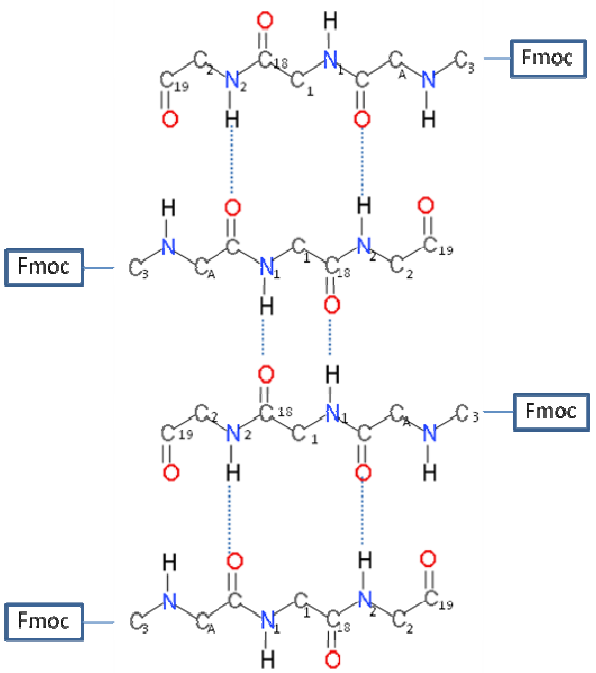

Fig. S1 Distribution of β-sheet distances between the Fmoc-L_3 molecules and π-π stacking distances between Fmoc residues.

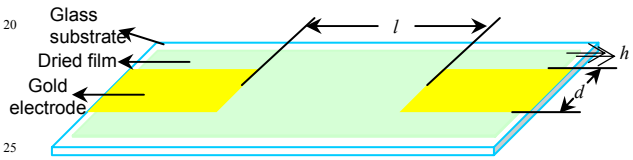

Fig. S2 Schematic representation of the sample used to measure electrical resistivity. *l* - electrode distance, *d* - electrode width and *h* -thickness of the film. The sheet resistance, R_s, is related to the resistance measured, *R*, by $R = R_s\, l / D$.

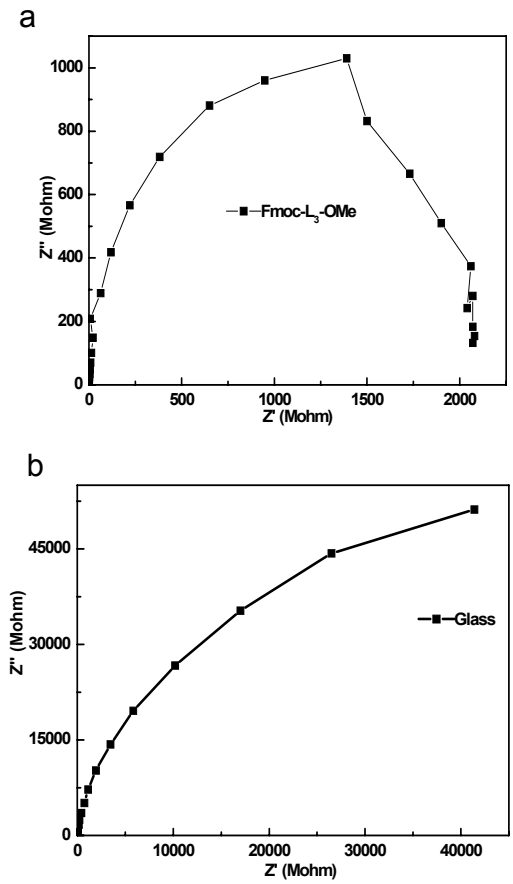

Fig. S4 Complex impedance plot data (with the frequency ranged from 0.1 to 10^7 HZ): a) Blank glass by using evaporated gold as electrode with R=1.1×10^{12} Ω; b) Dried film of Fmoc-L_3-OMe mixed in buffer solution with R= 1.8×10^9 Ω. 50μL acetone was used to dissolve Fmoc-L_3-OMe, and then mixed with 0.1 M phosphate buffer at pH 8 to prepare 20 mM Fmoc-L_3-OMe solution.

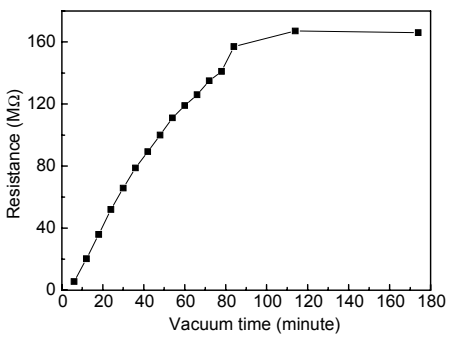

Fig S3. The resistance of a peptide network as a function of time spent under 1 mbar vacuum.