Electronic Supplementary Material (ESI) for RSC Advances.

Supporting information

Expeditious and eco-friendly hydrothermal polymerization of PEDOT nanoparticles for binder free high performance supercapacitor electrodes

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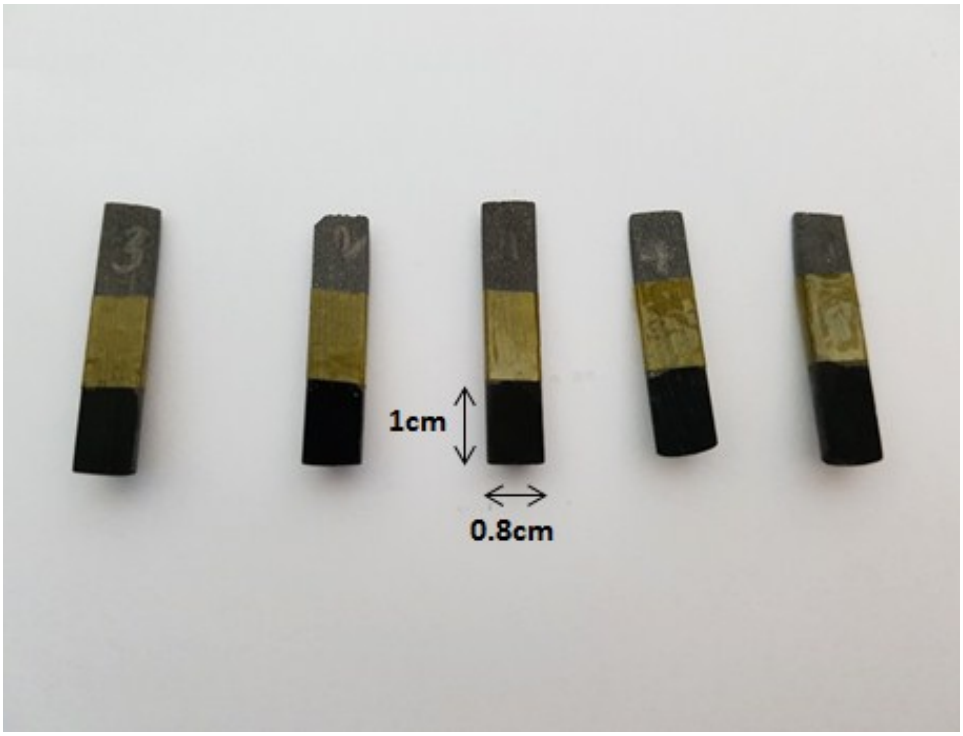

Fig. S1 Photographic image of PEDOT coated graphite electrodes.

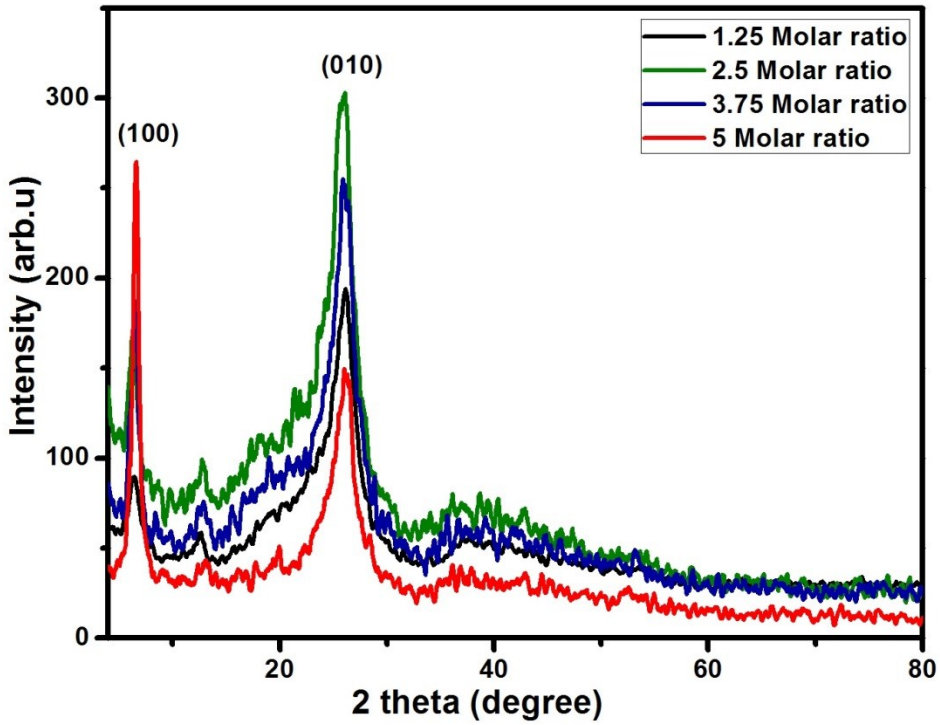

Fig. S2 Overlaid XRD spectrum of different MR of $FeCl_3$ polymerized PEDOT nanoparticles.

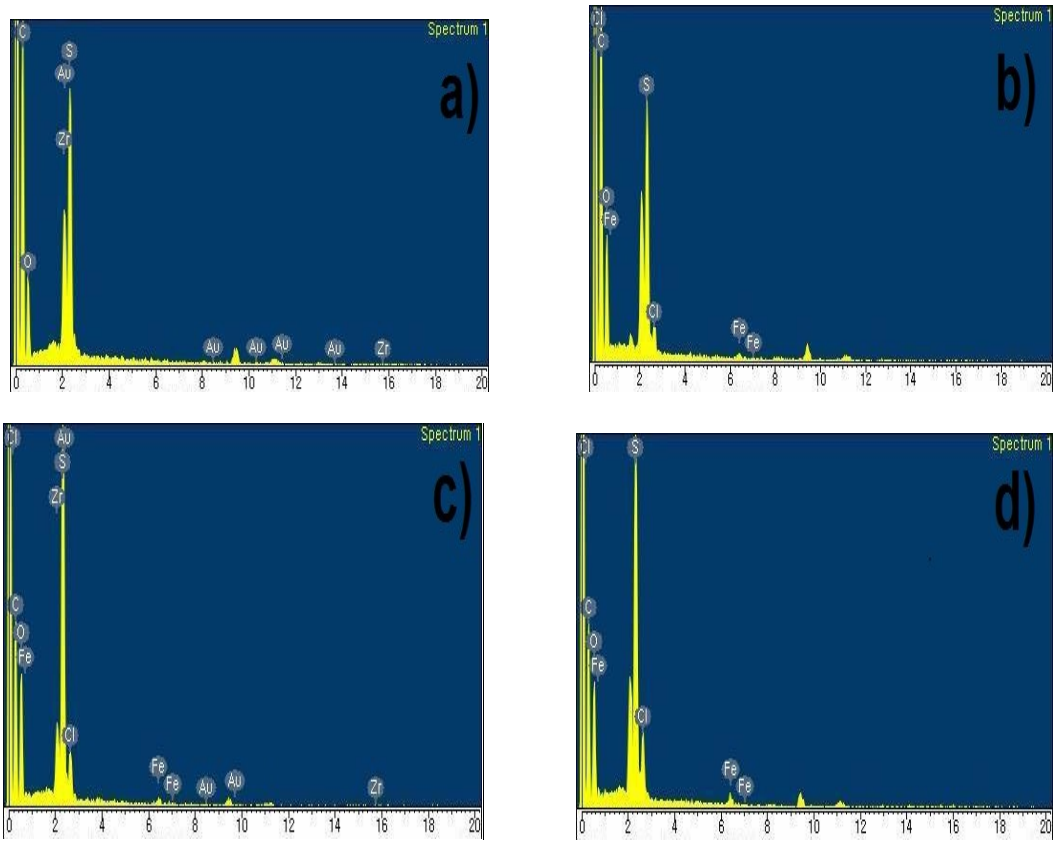

Fig. S3 EDX spectra of PEDOT nanoparticles obtained from (a) 1.25 MR of $FeCl_3$; (b) 2.5 MR of $FeCl_3$; (c) 3.75 MR of $FeCl_3$ and (d) 5 MR of $FeCl_3$.

Table S1. Atomic percentage of Fe and Cl content for various MR of $FeCl_3$ polymerized PEDOT nanoparticles.

Molar ratio of $FeCl_3$	Atomic % of Cl content	Atomic % of Fe content
1.25	0.002%	Nil
2.5	0.36%	0.04%
3.75	0.78%	0.18%
5.0	0.99%	0.28%

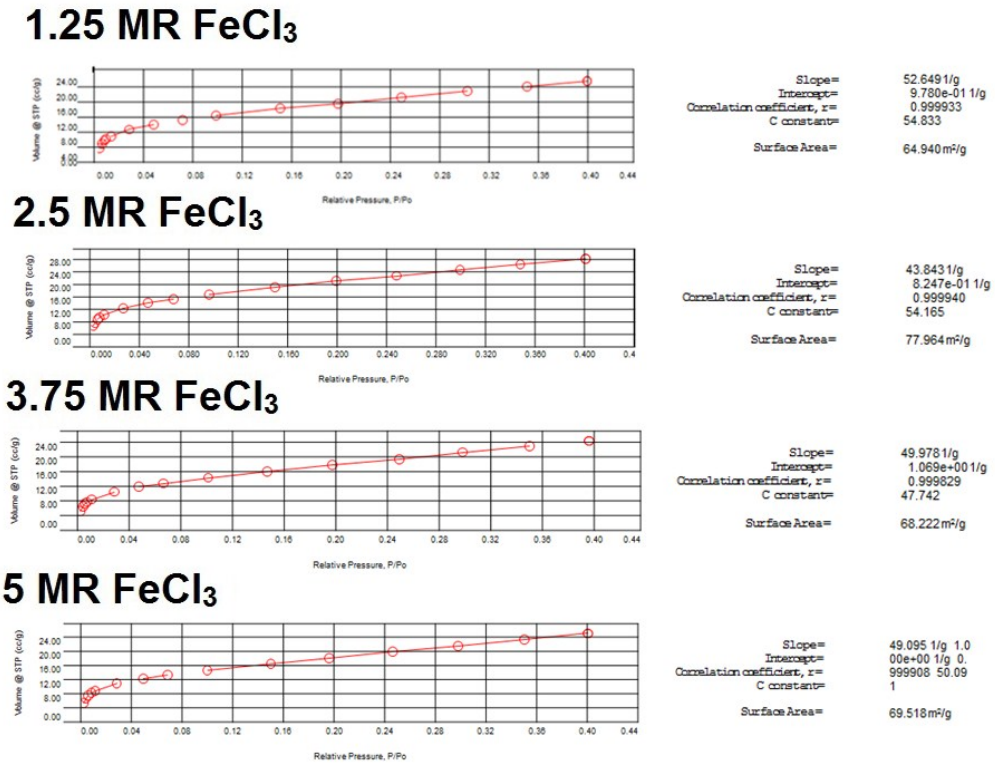

Fig S4. Nitrogen adsorption isotherm and specific surface area calculation of PEDOT nanoparticles obtained from various MR of $FeCl_3$.

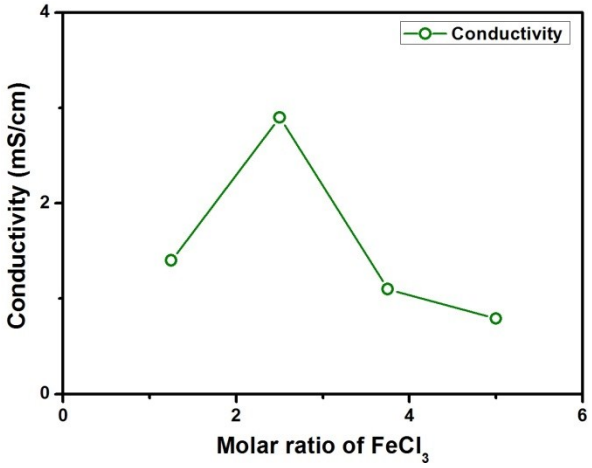

Fig. S5 Conductivity of the PEDOT nanoparticles obtained from various molar ratio of $FeCl_3$.

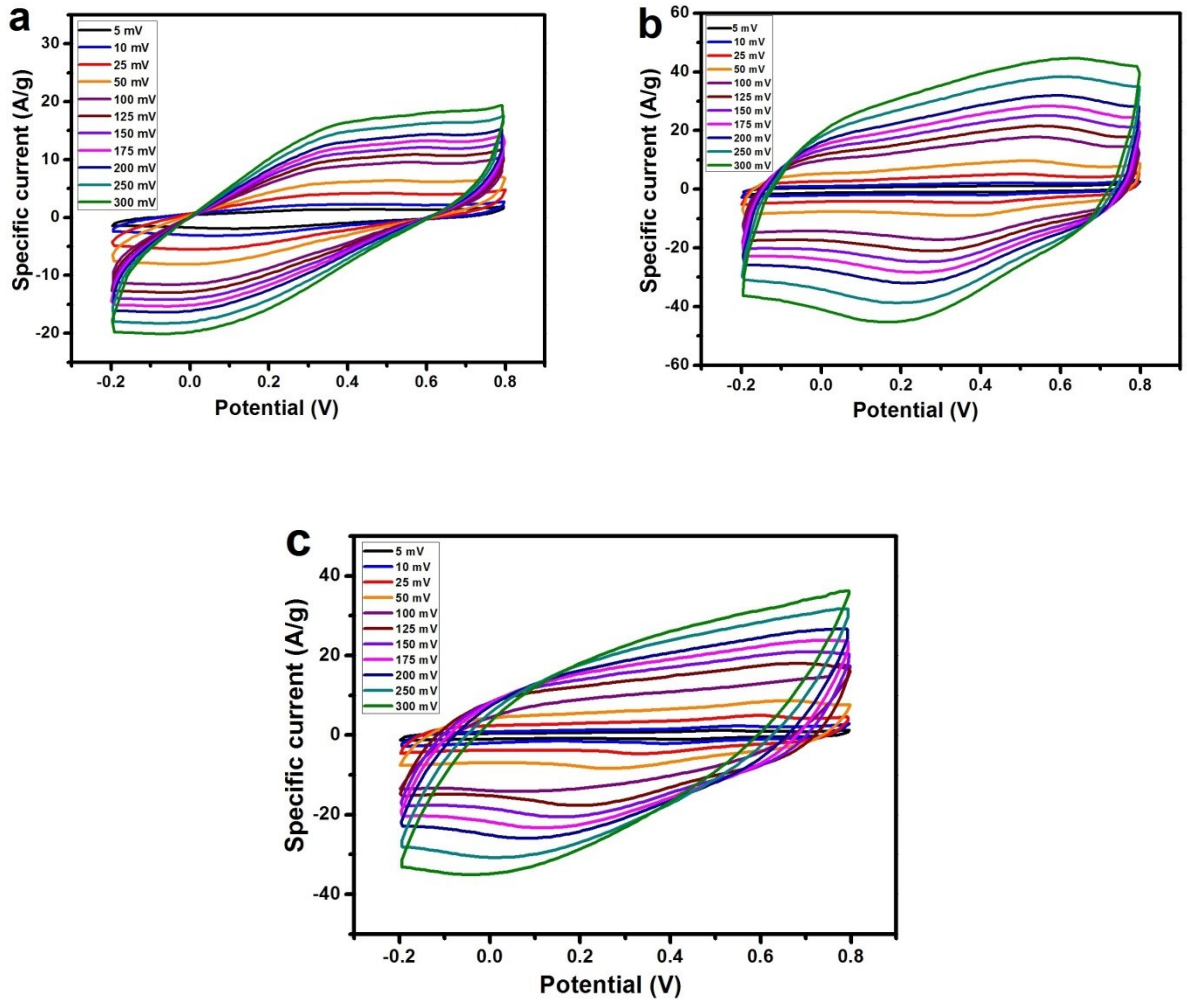

Fig. S6 Cyclic voltammograms of PEDOT electrodes from 5 to 300 mVs^{-1} scan rates (a) 1.25 MR of $FeCl_3$ (b) 3.75 MR of $FeCl_3$ and (c) 5 MR of $FeCl_3$.

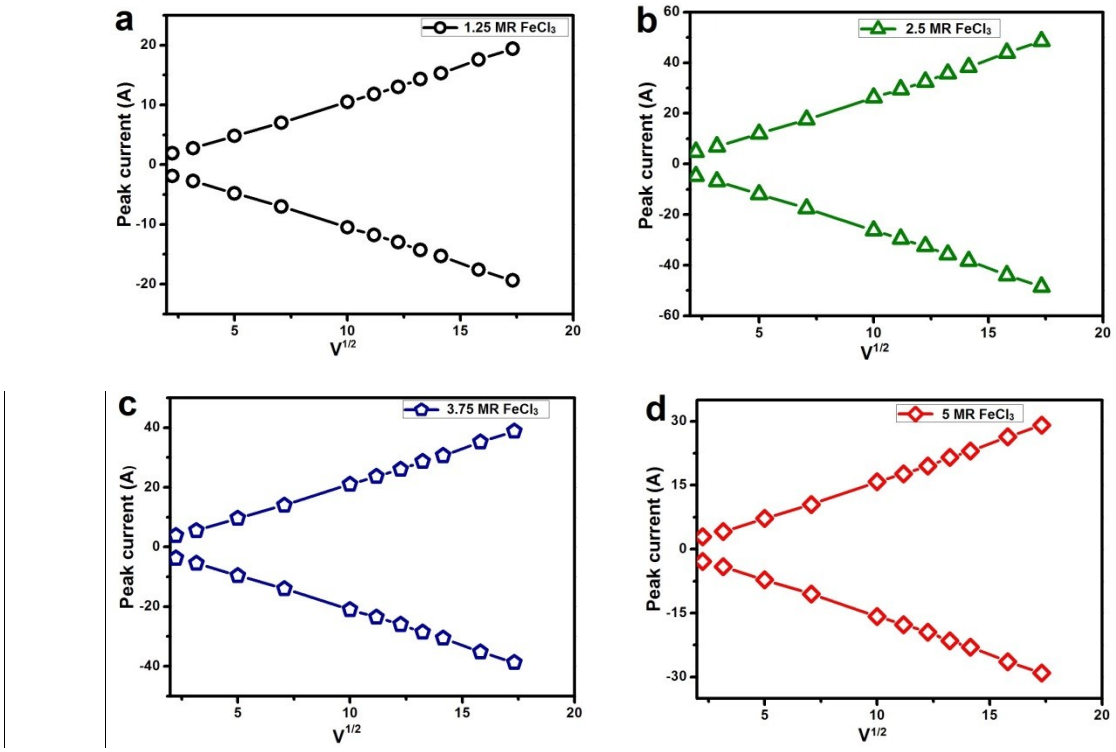

Fig.S7 (a) Peak current versus squre root of the scan rate plot of PEDOT electrodes obtained from (a) 1.25 MR of $FeCl_3$; (b) 2.5 MR of $FeCl_3$; (c) 3.75 MR of $FeCl_3$ and (d) 5 MR of $FeCl_3$.

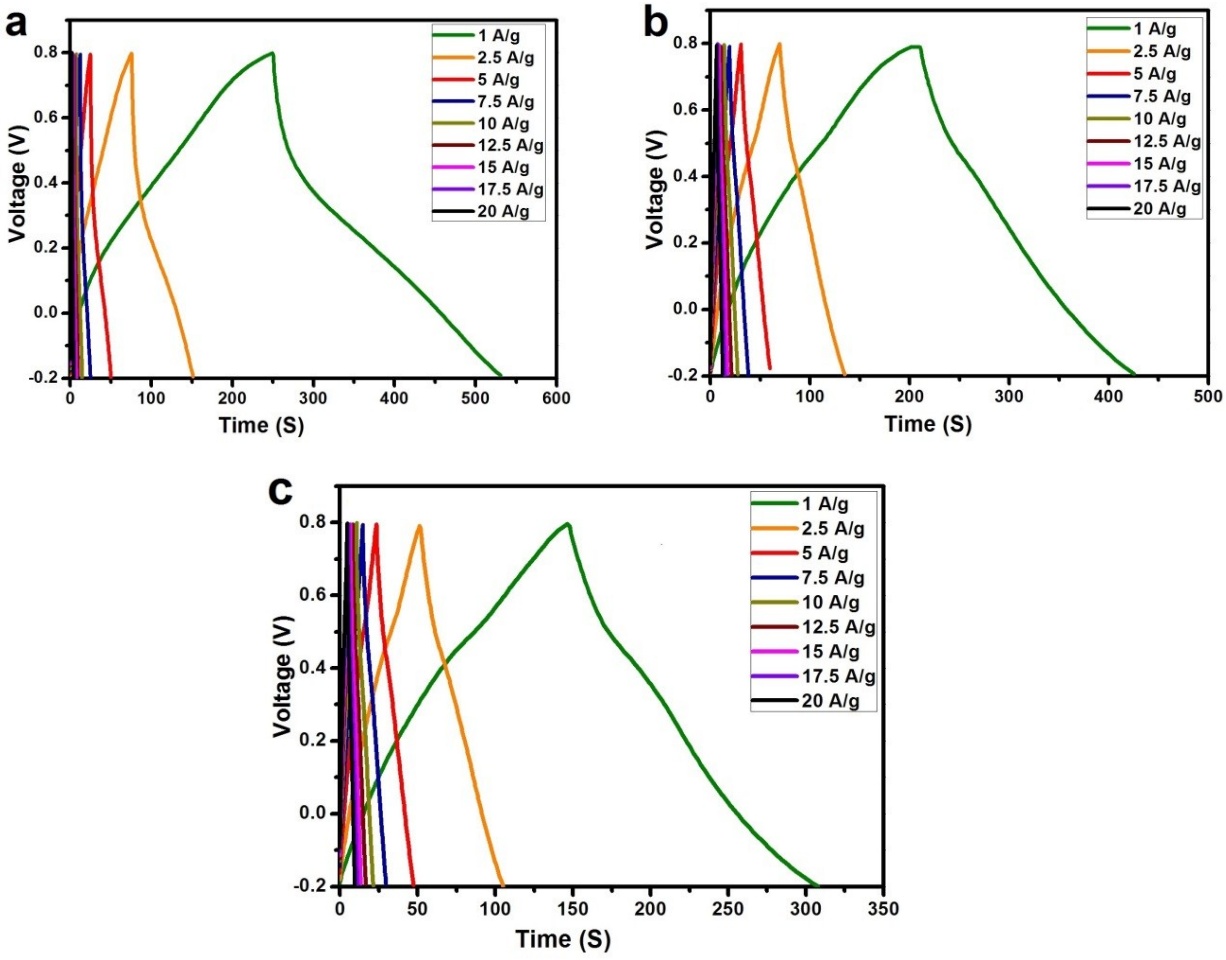

Fig.S8 Galvanostatic charge/discharge curves of PEDOT electrodes at different current densities a) 1.25 MR of $FeCl_3$; (b) 3.75 MR of $FeCl_3$ and (d) 5 MR of $FeCl_3$.