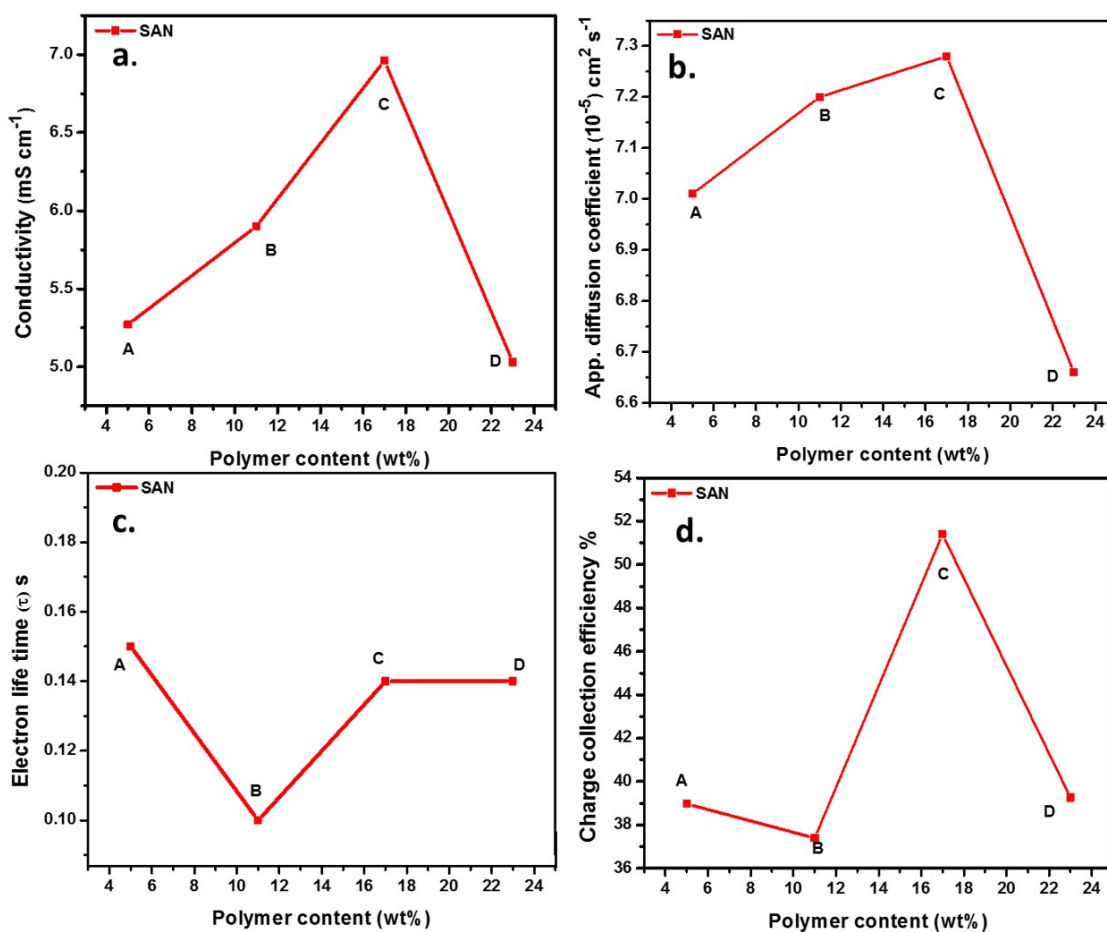


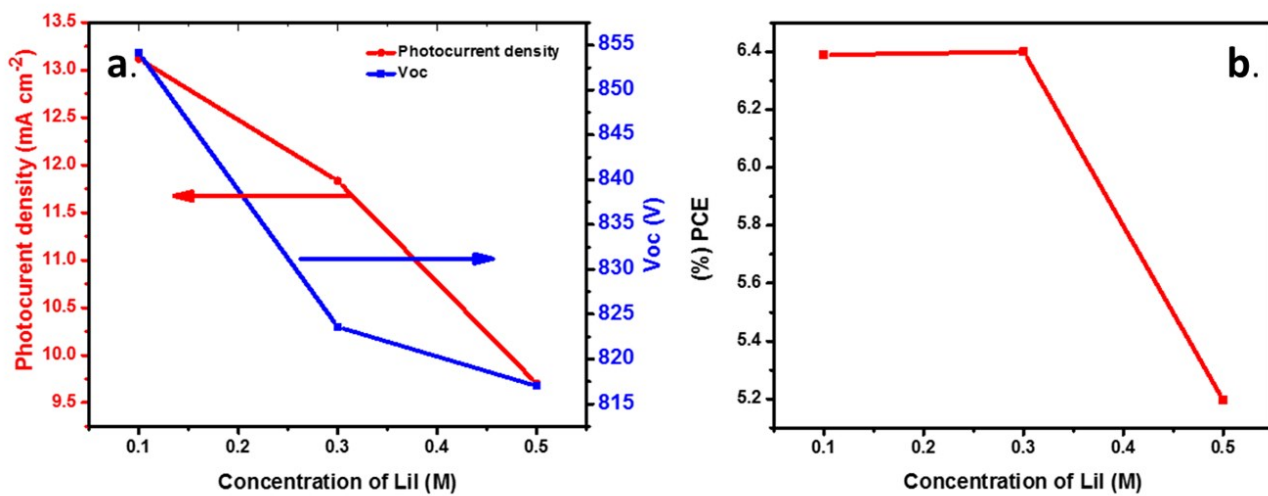
## Supplementary Information:

### Poly(styrene-co-acrylonitrile) Gel Electrolyte for Dye-sensitized Solar Cells with Improved Photoelectrochemical Performance

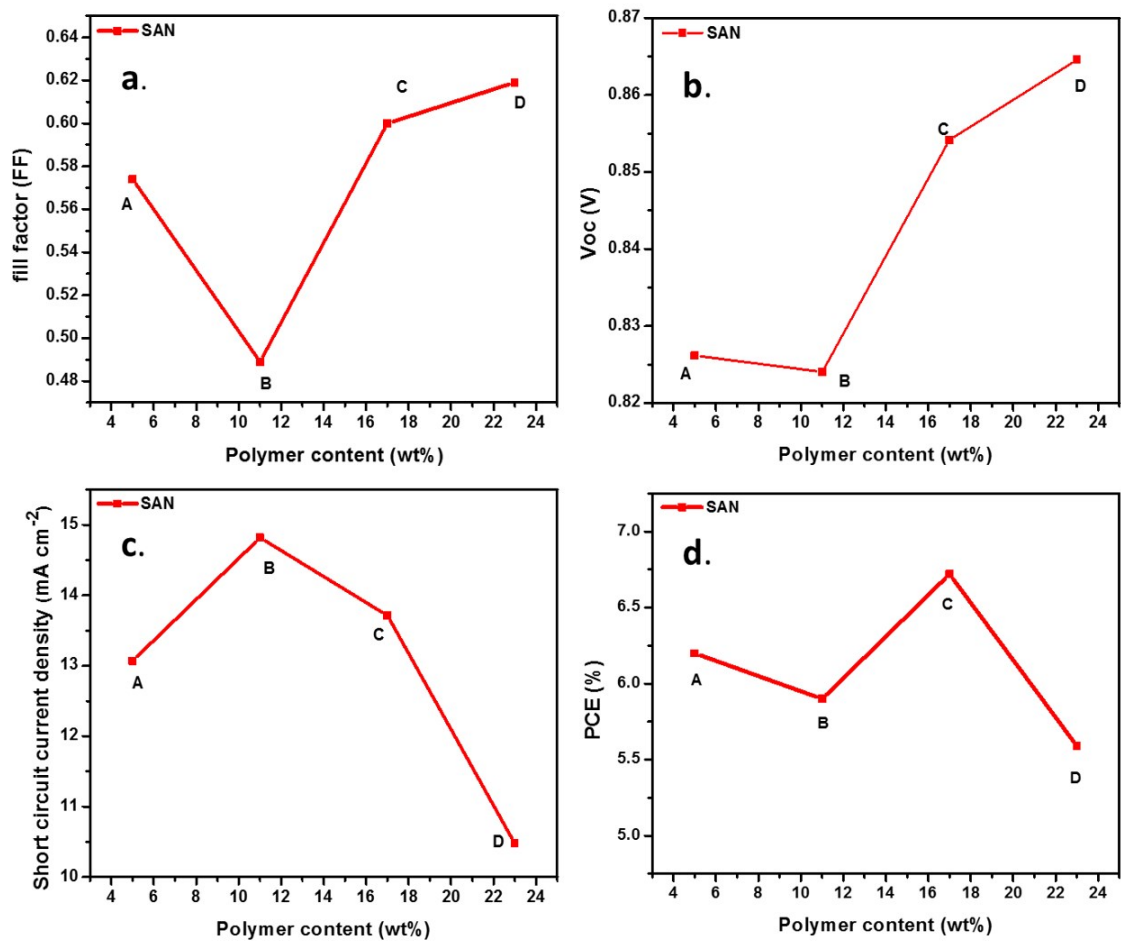
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**Figure S1:** Variation in (a) charge collection efficiency (%  $\eta_{cc}$ ), (b) electron lifetime ( $\tau$ ), (c) ionic conductivity ( $\sigma$ ) and (d) diffusion coefficient values ( $D_{app}$ ) of SAN based PGE.



**Figure S2:** Effect of variable concentrations of LiI on (a) photovoltaic parameters and (b) photovoltaic performance of SAN based quasi solid-state electrolytes at a given concentration.



**Figure S3:** Variation in the photovoltaic properties of quasi solid state dye sensitized solar cells for different wt% of SAN based PGE.