

## Electronic Supplementary Information

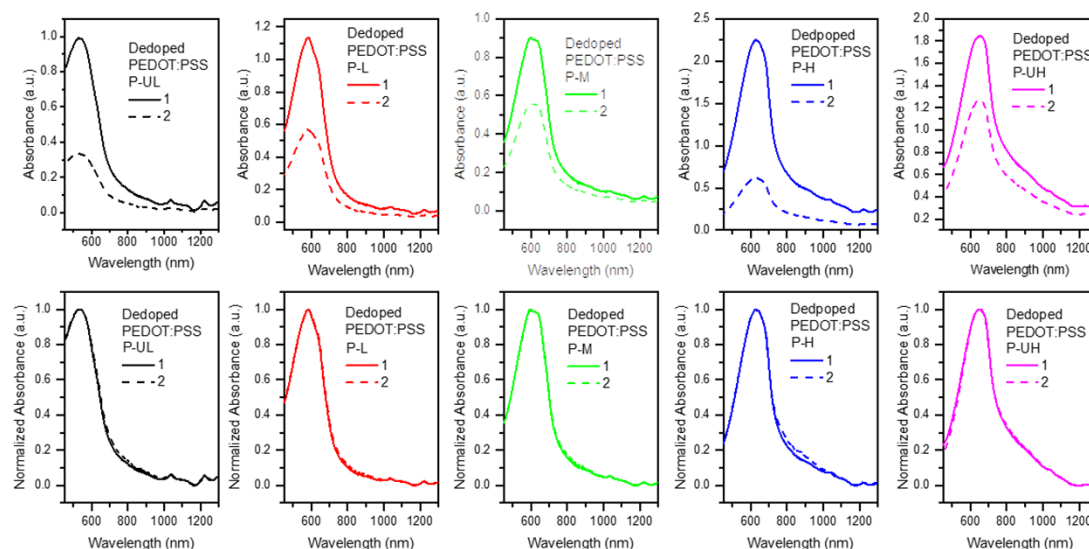
### Importance of molecular weight of PEDOT hole transporting materials for efficient organic solar cells

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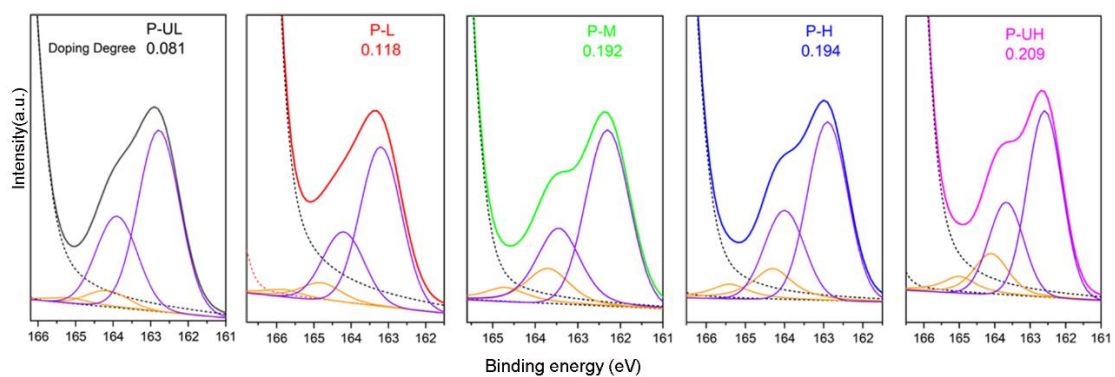
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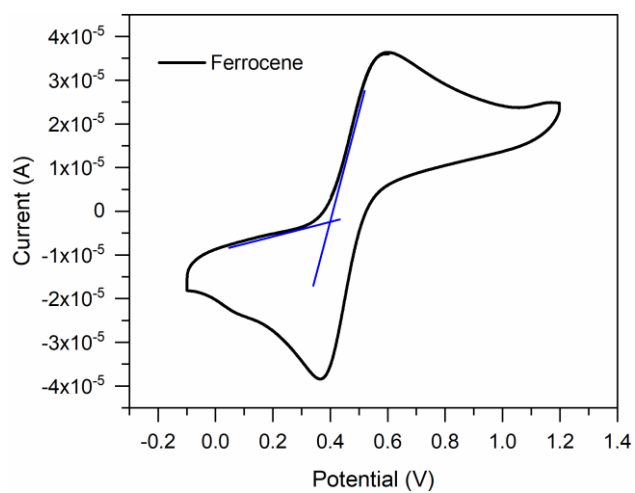
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**Fig. S1** Vis-NIR absorption spectra (top) and corresponding normalized spectra (down) of dedoped PEDOT:PSS aqueous dispersions with different concentrations (1 and 2). Normalize method: normalize to [0, 1].



**Fig. S2** S 2p spectra of PEDOTs.



**Fig. S3** CV curve of ferrocene in 0.1M tetrabutylammonium hexafluorophosphate solution.