

## Electronic Supplementary Information

### Probing the molecular weight dependent interactions in single molecules of PCDTBT

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**S1.** Modulation Depths Histograms

**S2.** Energy distribution histograms of E at half height  $E_{\max}$

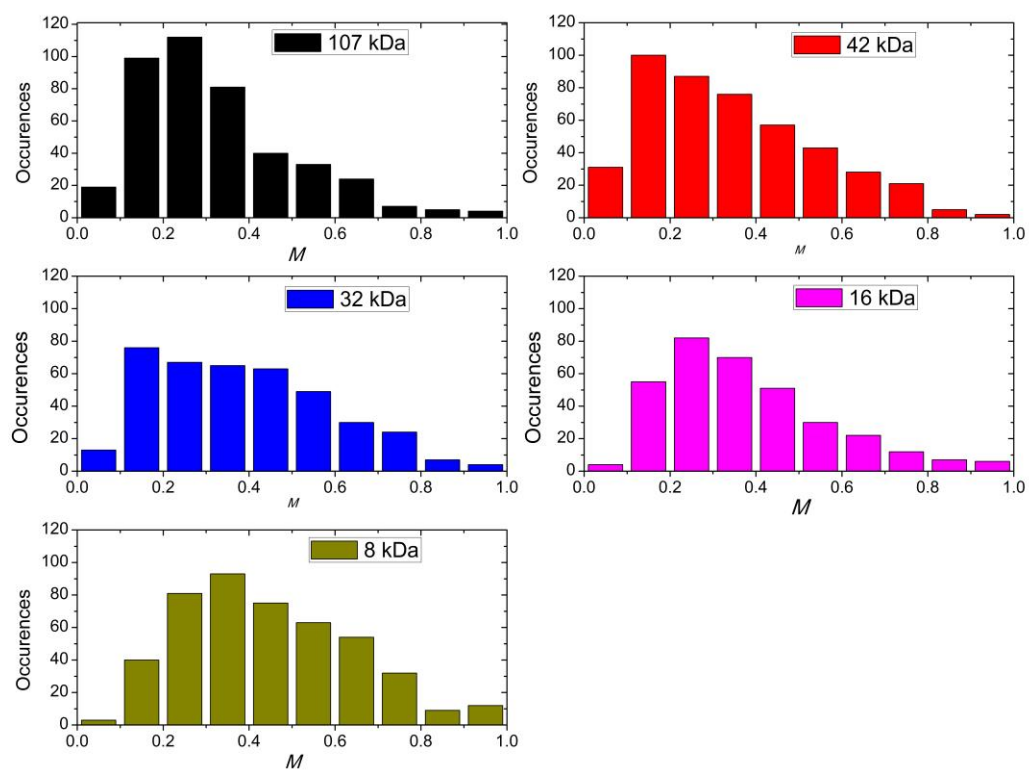


Figure S1. Histograms of modulation depths distribution of all PCDTBT polymers examined.

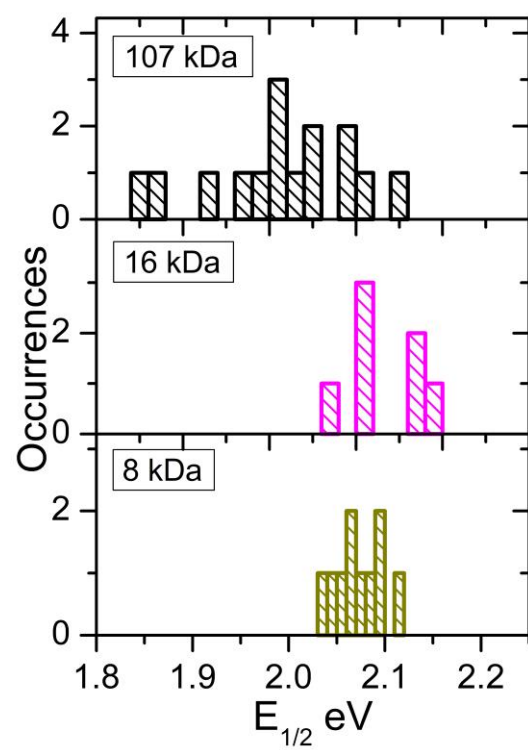


Figure S2. Analysis of  $E$  at half height  $E_{\max}$  on the blue edge for a subset of individual polymers show some vibronic structures