

Supplementary data

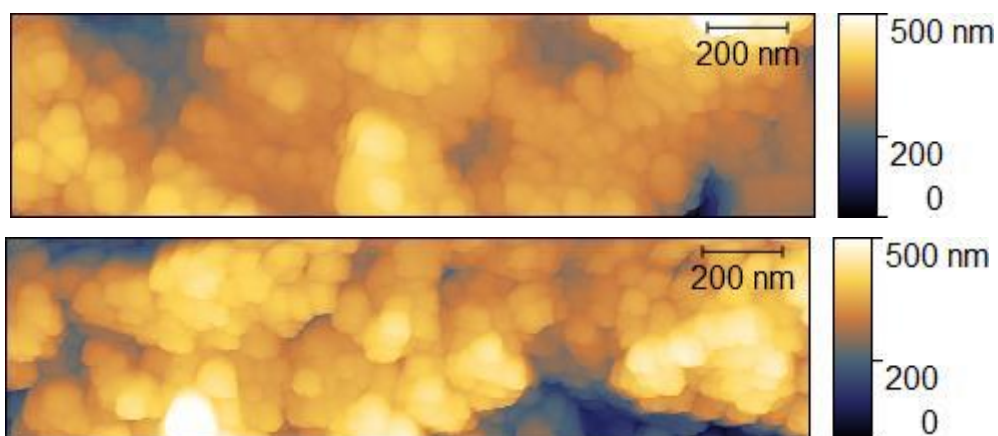
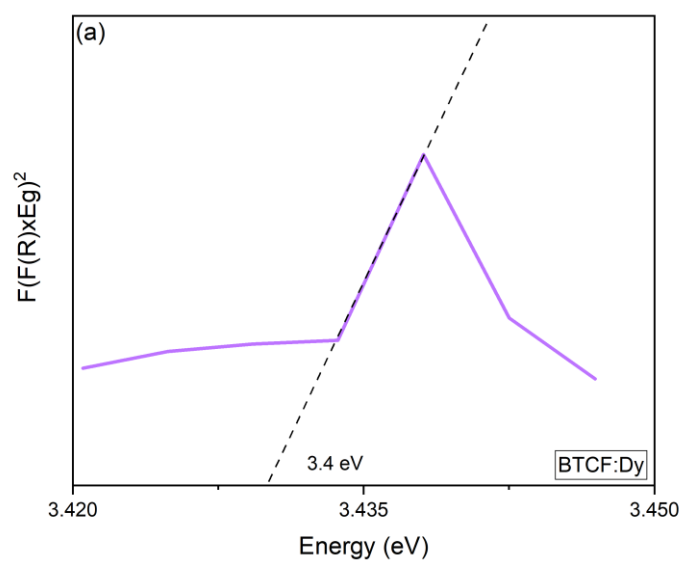


Figure S1- 2D AFM images of photoabsorbers: BTCF:Dy (a) and P25/BTCF:Dy (b).



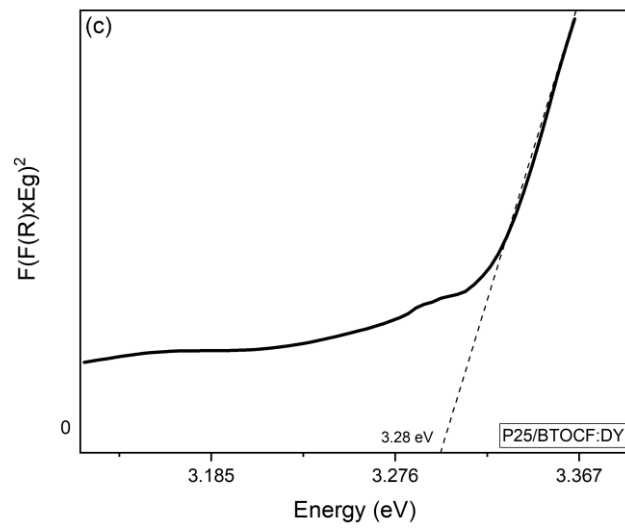
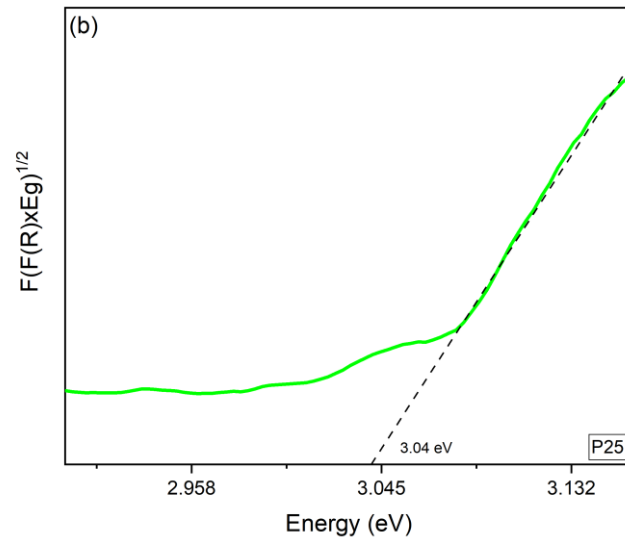


Figure S2- Band gap images of photoabsorbers: BTOCF:Dy (a), P25 (b) and P25/BTOCF:Dy (c).