

## Supporting informations

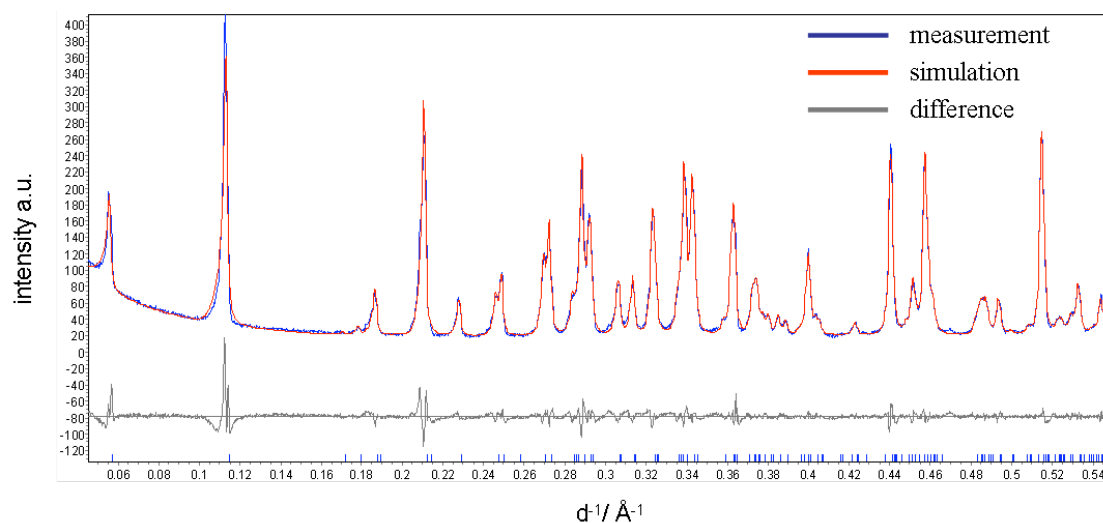


Figure S1: The blue line shows the measured powder diffraction pattern of K-BrBz. The according unit cell was determined using the the LeBail method (red line). The grey line depicts the difference between the measurement and the simulation.

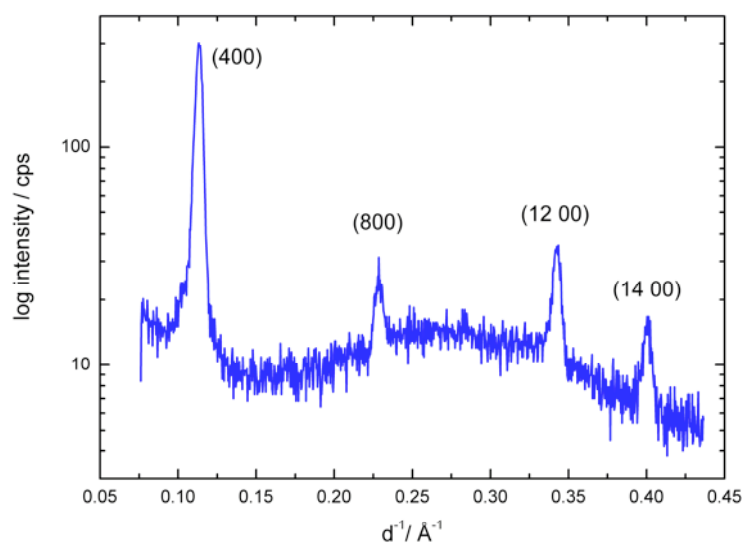


Figure S2: Specular scan of a drop-cast film shows that K-BrBz crystallizes with the (100) net plane parallel to the glass substrate.

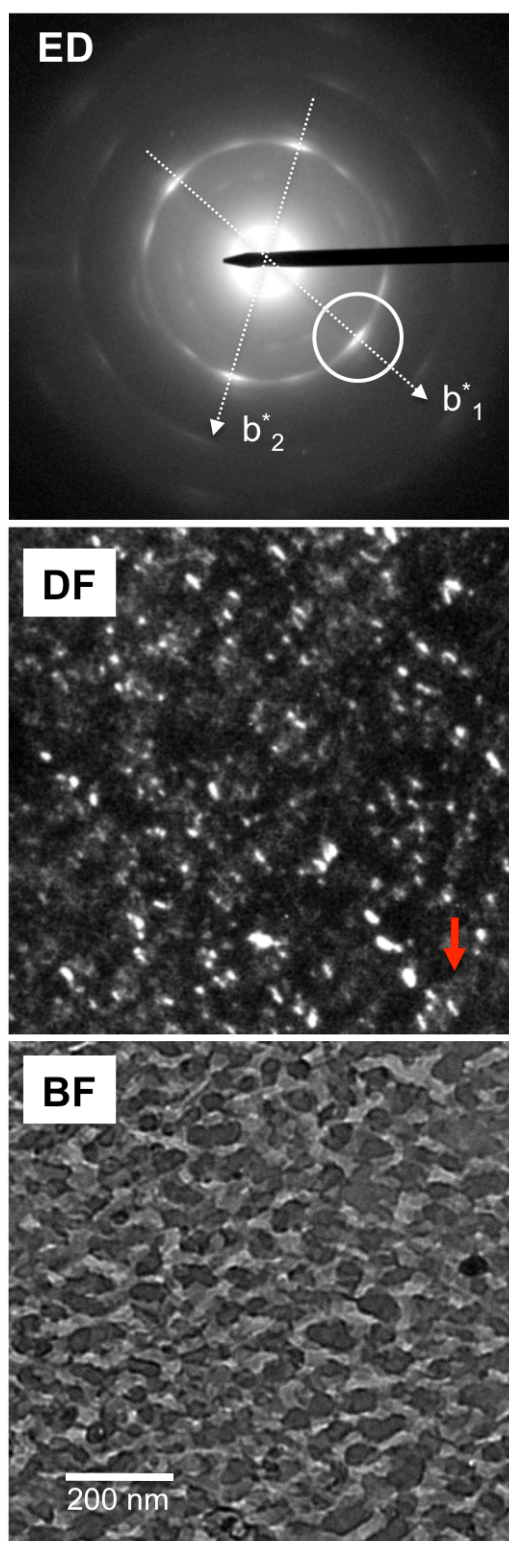


Figure S3. Electron diffraction pattern (ED), dark field (DF) and bright field (BF) of a P3HT film grown on K-BrBz substrate at  $T_{\text{iso}}=180^\circ\text{C}$ . The DF has been obtained by selecting the 0 2 0 reflection highlighted by a circle. The red arrow in the DF image points at a set of bright stripes i.e. crystalline P3HT lamellae whose in-plane orientation corresponds to the selected 0 2 0 reflection. The BF image shows the corresponding morphology of the same area observed in DF.

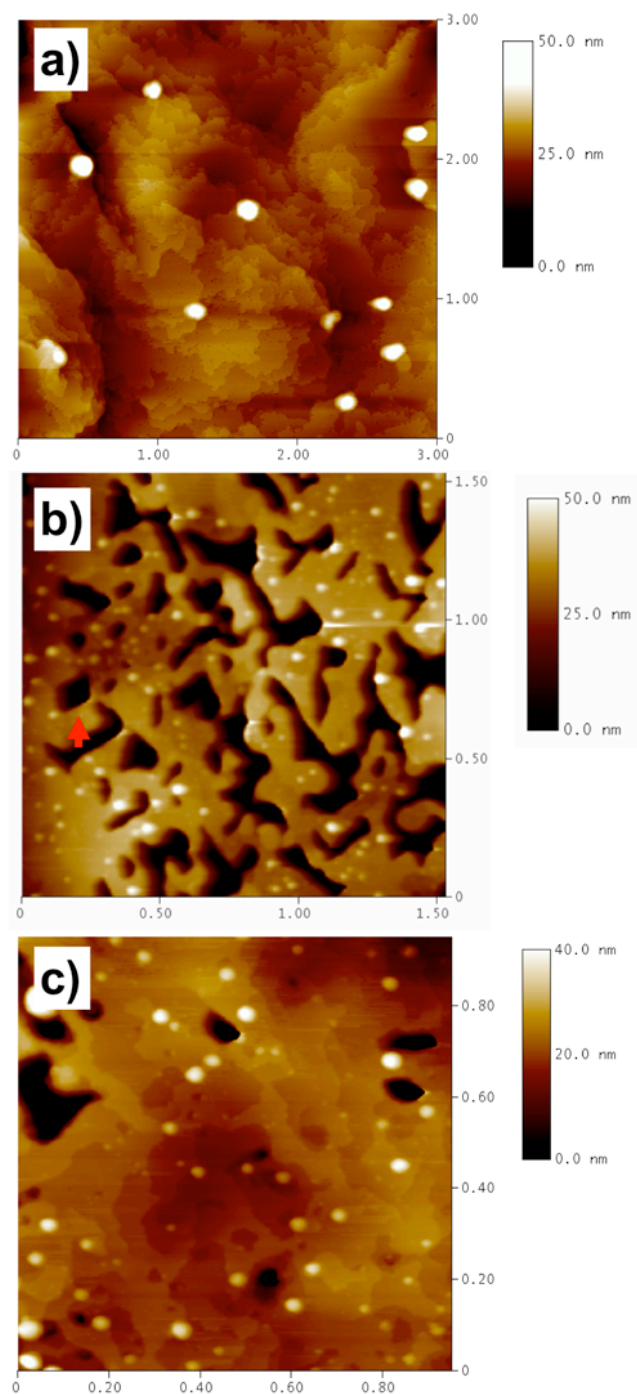


Figure S4. Effect of annealing on the surface morphology of the K-BrBz substrate. A) as-cast thin film of K-BrBz. Note the irregular step edges. b) and c) : Reconstructed morphology of the K-BrBz crystal showing a “hill-and-valley“ morphology. Note also the rhombic shape of the etch pit in part b which is highlighted by a red arrow.