Electronic Supporting Information:

Polytellurophenes Provide Imaging Contrast Towards Unravelling the Structure-Property-Function Relationships in Semiconductor:Insulator Polymer Blends

Ashlee A. Jahnke[1], Liyang Yu[2,3], Neil Coombs[1],Alberto D. Scaccabarozzi[2], Andrew J. Tilley[1], Paul M. DiCarmine[1], Aram Amassian[3], Natalie Stingelin[2], and Dwight S. Seferos[1*]*

[1]Department of Chemistry, University of Toronto, Toronto, Ontario M5S 2P5, Canada

[2]Department of Materials and Centre for Plastic Electronics, Imperial College London, London SW7 2AZ, United Kingdom

[3]Department of Materials Science and Engineering, King Abdullah University of Science and Technology, Thuwal, Kingdom of Saudi Arabia

[*]email: n.stingelin-stutzmann@imperial.ac.uk, dseferos@chem.utoronto.ca

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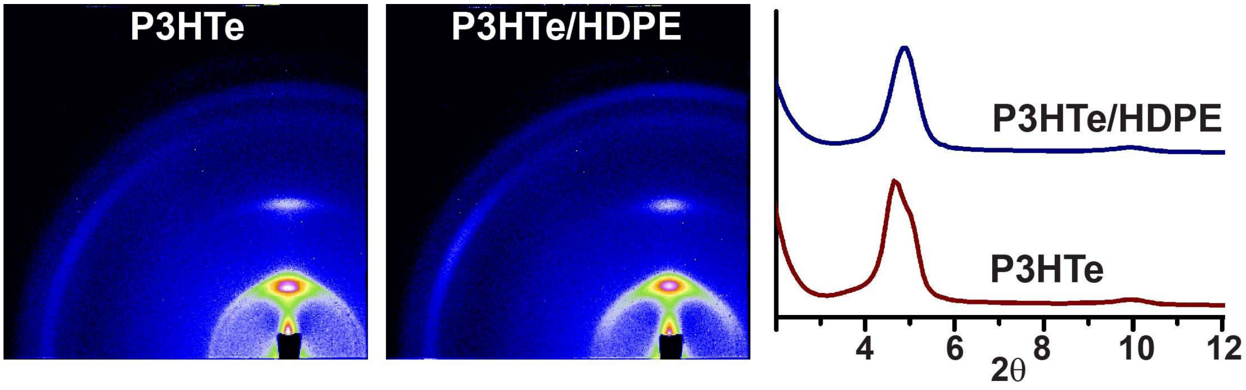

Fig. S1: GIWAXS data for P3HTe and P3HTe/HDPE.

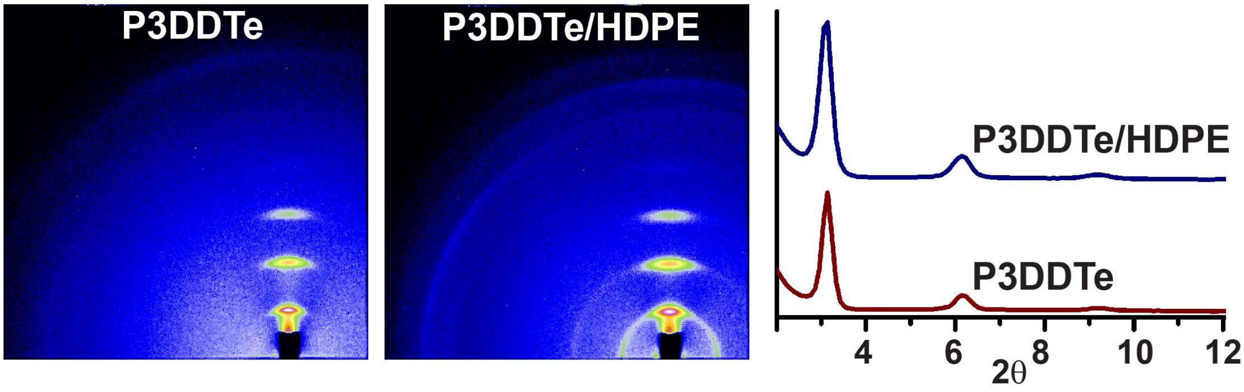

Fig. S2: GIWAXS data for P3DDTe and P3DDTe/HDPE.

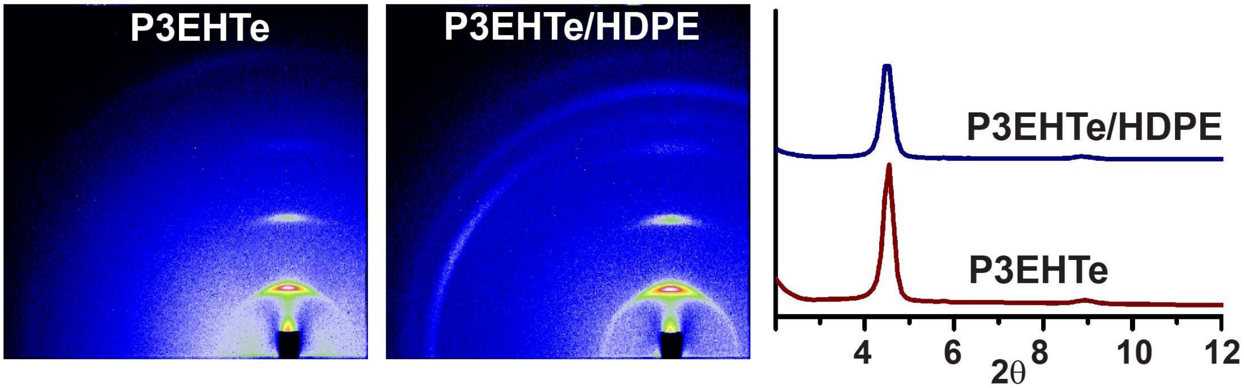

Fig. S3: GIWAXS data for P3EHTe and P3EHTe/HDPE.

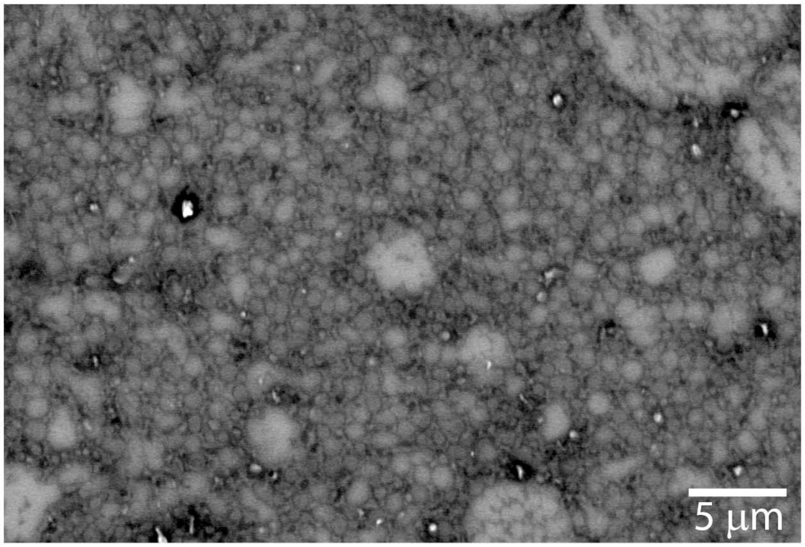

Fig. S4: Backscattering image of P3HTe/HDPE composite thin-film.

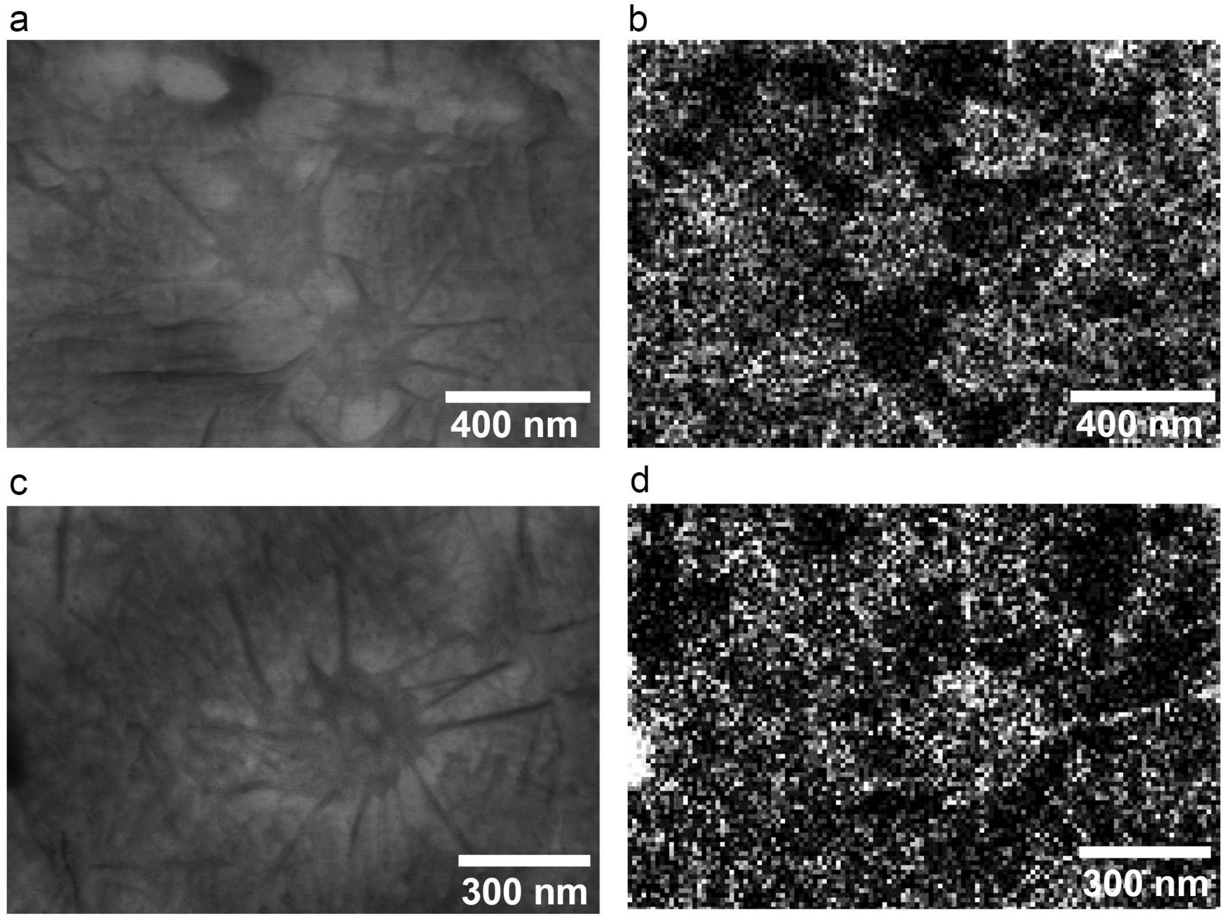

Fig. S5: Energy dispersive x-ray scattering images of P3HTe/HDPE. Reference image (a, c) and tellurium counts in white (b, d).

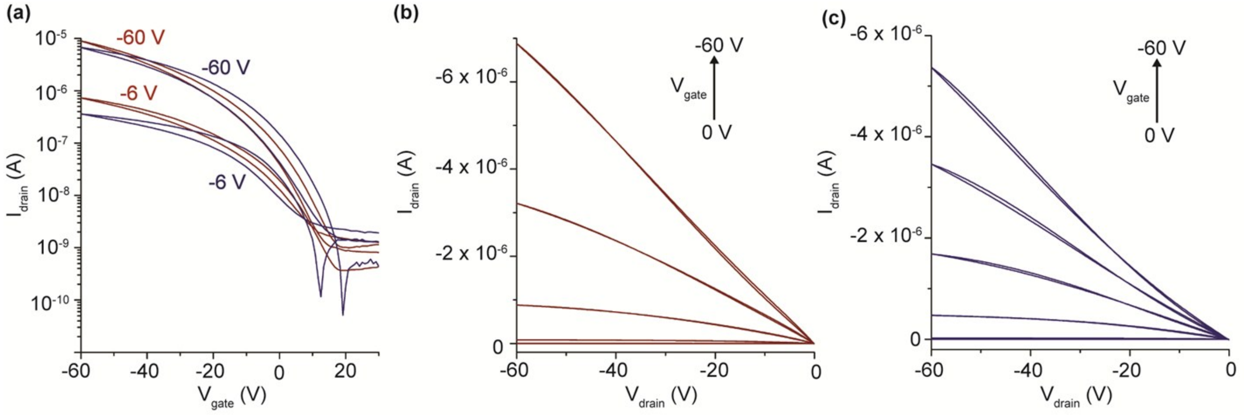

Fig. S6: Transfer (a) and output (b,c) characteristics of neat P3HTe (red) and P3HTe/HDPE composite (blue) devices.

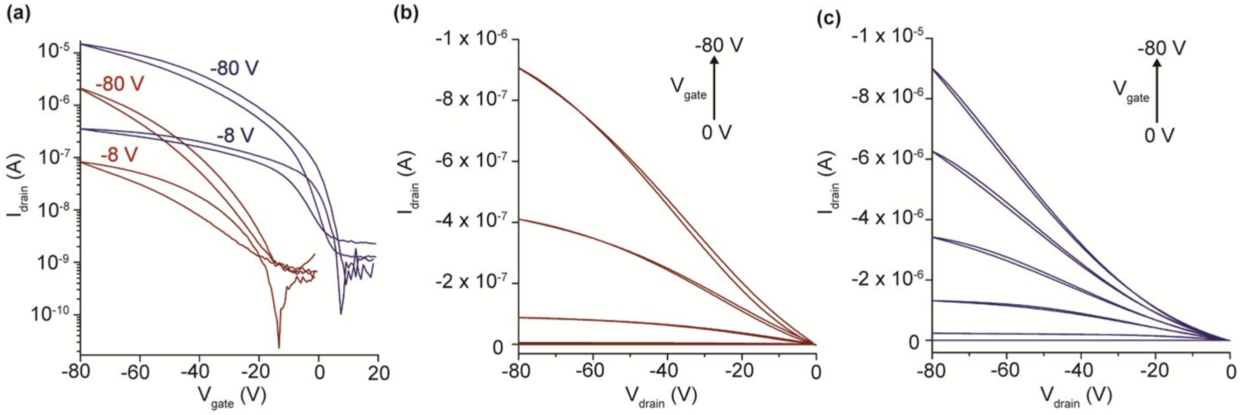

Fig. S7: Transfer (a) and output (b,c) characteristics of neat P3DDTe (red) and P3DDTe/HDPE composite (blue) devices.

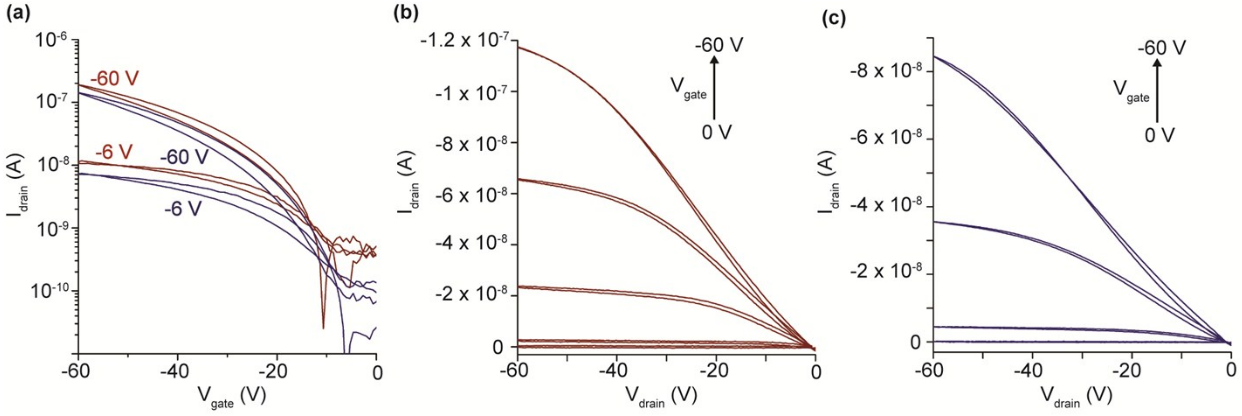

Fig. S8: Transfer (a) and output (b,c) characteristics of neat P3EHTe (red) and P3EHTe/HDPE composite (blue) devices.

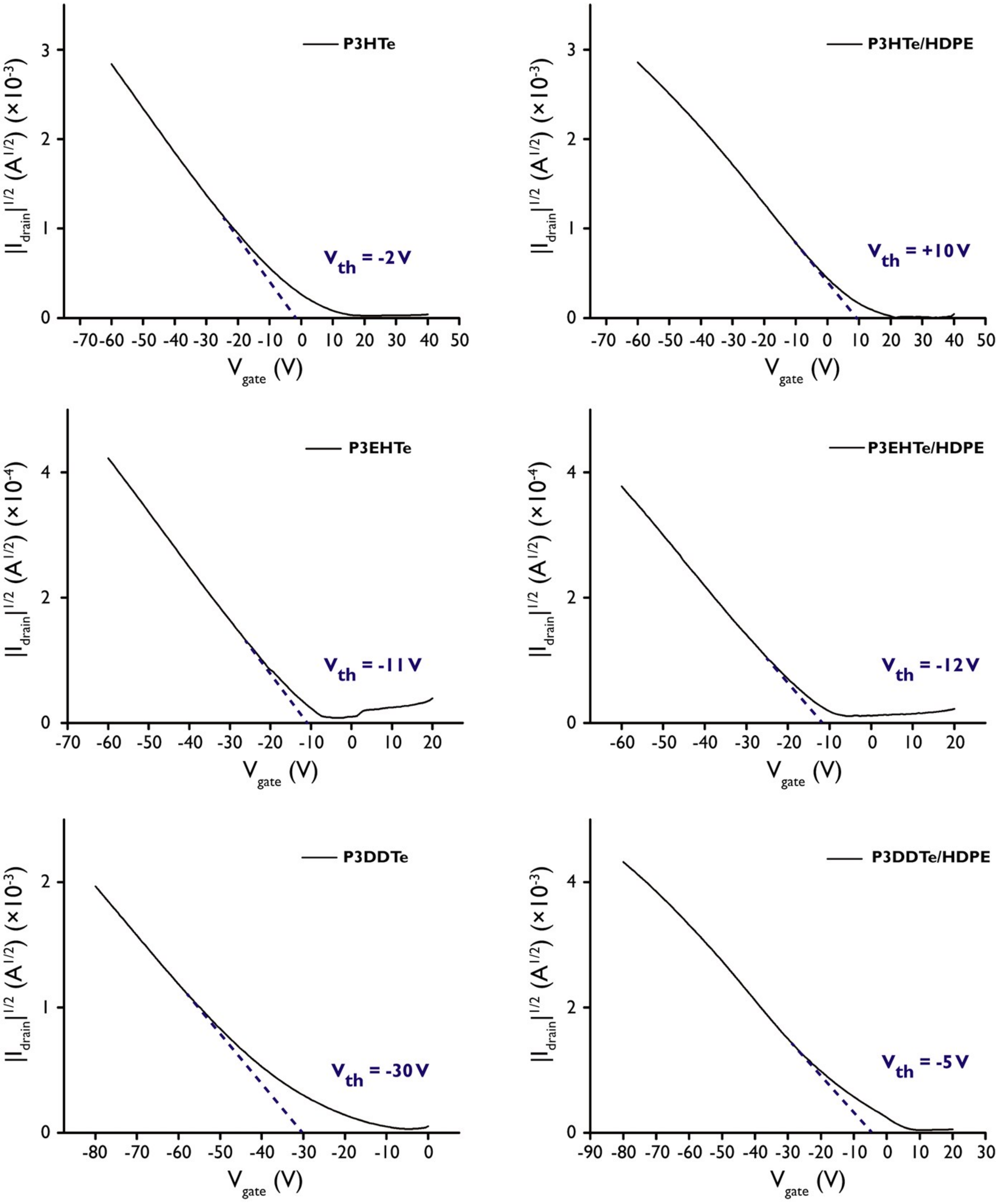

Fig. S9: Transfer curves of the field-effect transistors. The blue dashed lines were used to determine the threshold voltages (V_{th}).