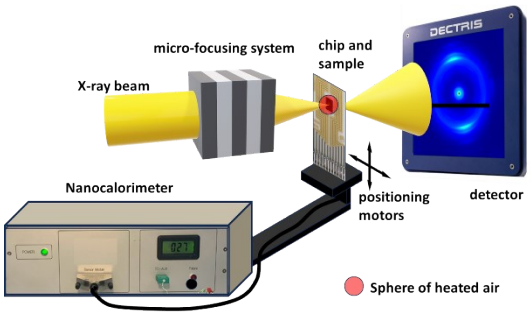
Supplementary Information

Correlation Between Domain Size and Charge Transport Properties in Benzothiadiazole–Thiophene Molecules: Insights from Nano-Focus X-Ray Scattering and Fast Scanning Chip Calorimetry

Azaliia F. Akhkiamova[a, b], Ainur F. Abukaev[a, b], Mariia V. Gaikovich[b], Ilya E. Kuznetsov[b], Alexey A. Piryazev[a, b, c], Ilya I. Rulev[a], Alexander V. Akkuratov[b], Denis V. Anokhin[a, b, c], Dimitri A. Ivanov*[a, b, c, d]



Scheme S1. Combination of nanofocus X-ray diffraction and fast scanning chip calorimetry experimental setup.

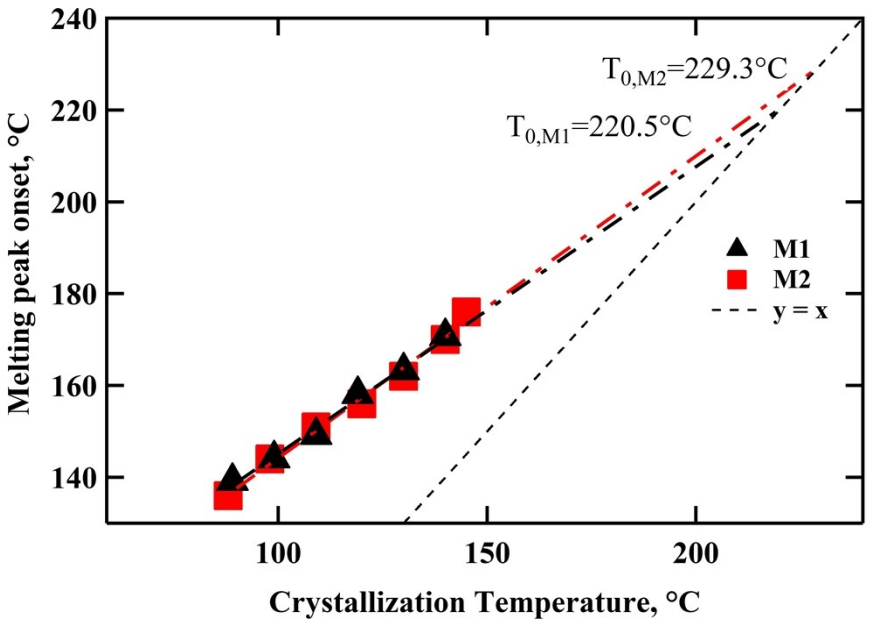


Fig. S1. Dependence of the melting peak onset on the crystallization temperature (Tm vs. Tc). The thermodynamic melting points of M1 and M2 (T_o,M1 and T_o,M2, respectively) are determined as the intersection points of the Tm vs. Tc curves with the Tm = Tc line.

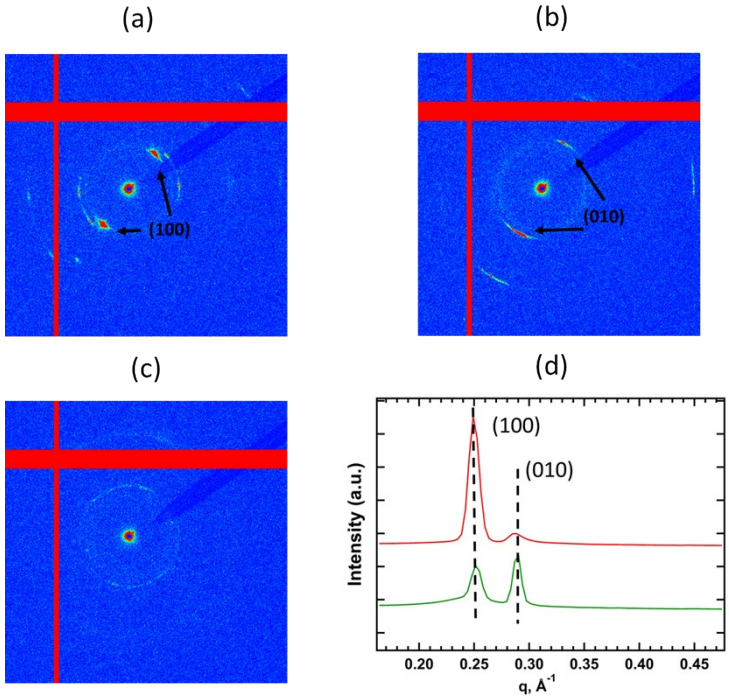


Fig. S2. Selected two-dimensional X-ray scattering patterns recorded from different regions of the M1 sample isothermally crystallized at 123 °C: (a) region with high intensity of the 100 peak, (b) region with high intensity of the 010 peak, and (c) region with low intensity of both peaks. (d) 1D-reduced X-ray scattering data exemplified for samples M1 (red) and M2 (green).

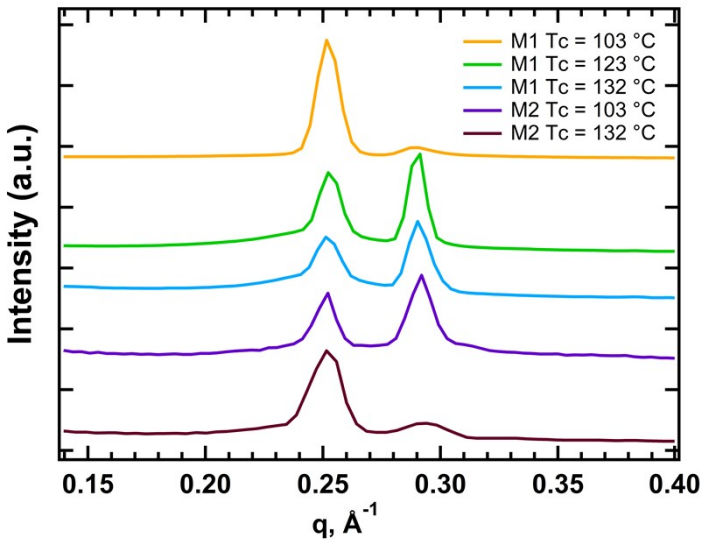


Fig. S3. Room-temperature 1D-reduced X-ray scattering profiles of sample M1, isothermally crystallized at the indicated temperatures.

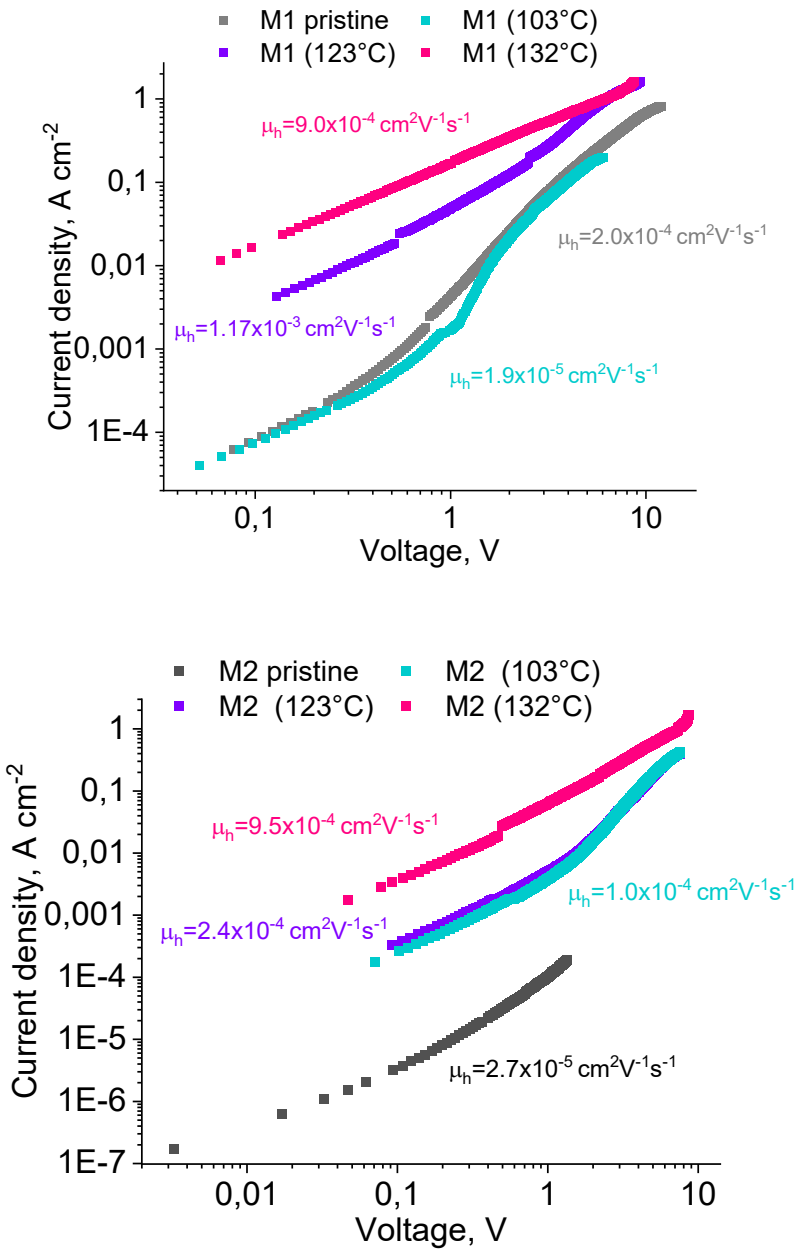


Fig. S4. – J-V curves for hole-only devices with active layers of samples M1 (top panel) and M2 (bottom panel) isothermally crystallized at the indicated temperatures.