Supporting Information

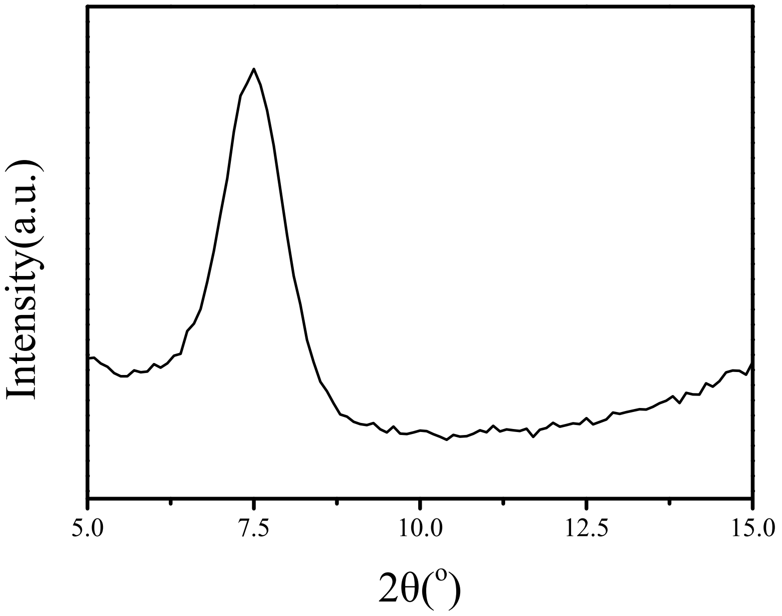


Figure S1. 1D GIXRD curves of the as cast P3BT film.

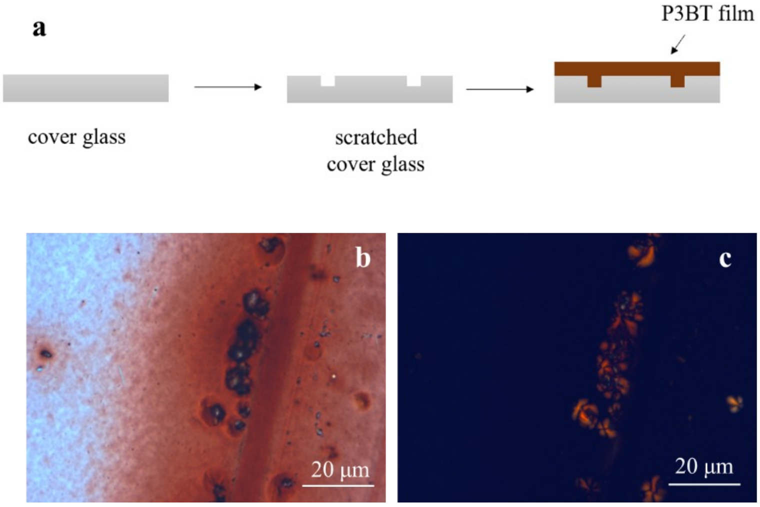
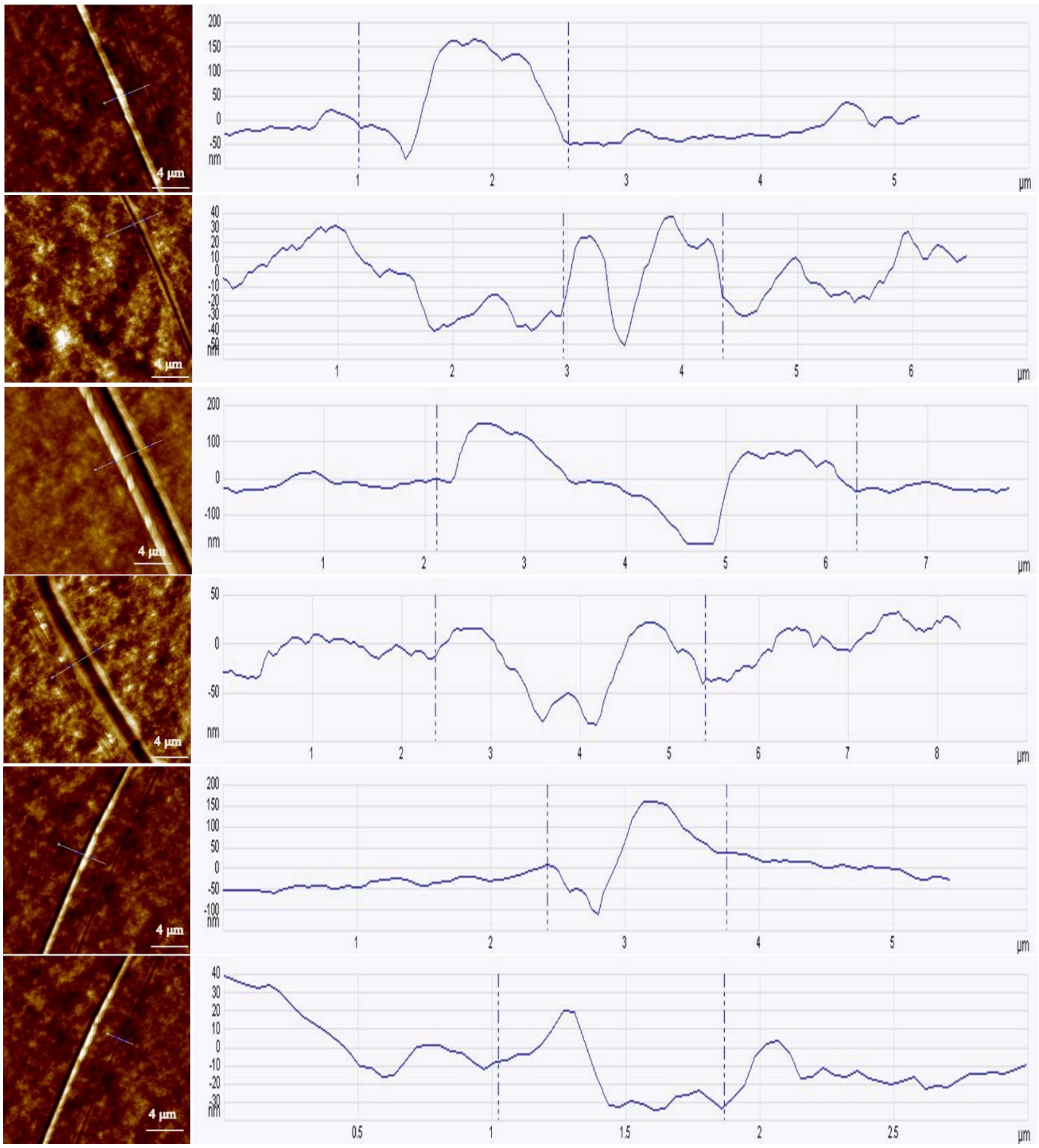


Figure S2. (a) A schematic drawing for preparing the P3BT film on the scratched cover glass. (b) Optical microscopy and (c) polarized optical microscopy images of CS_2 vapor annealed P3BT films on the scratched cover glass.


4 µm
200
150
100
50
0
-50
nm
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µm
4 µm
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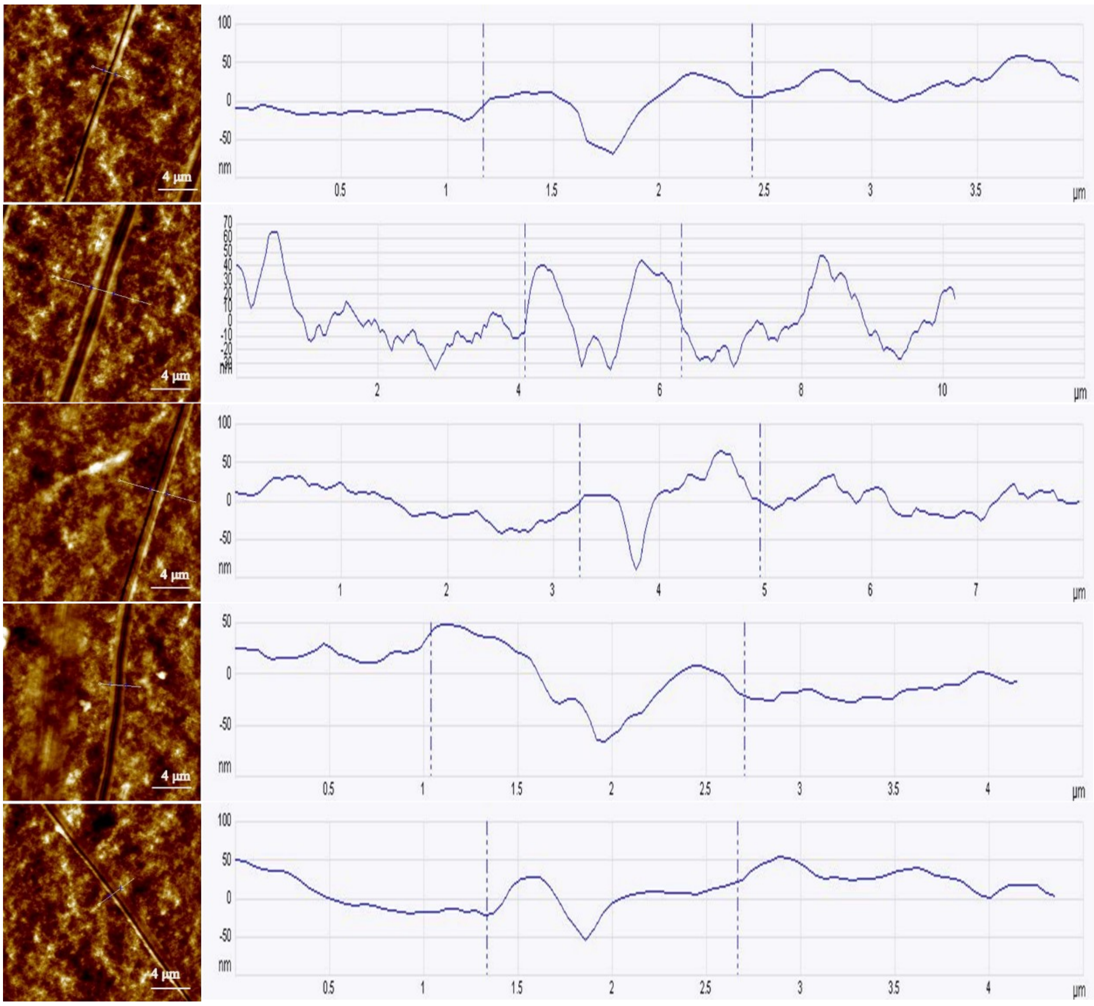

Figure S3. AFM height images and the corresponding cross-section analysis of different scratches.

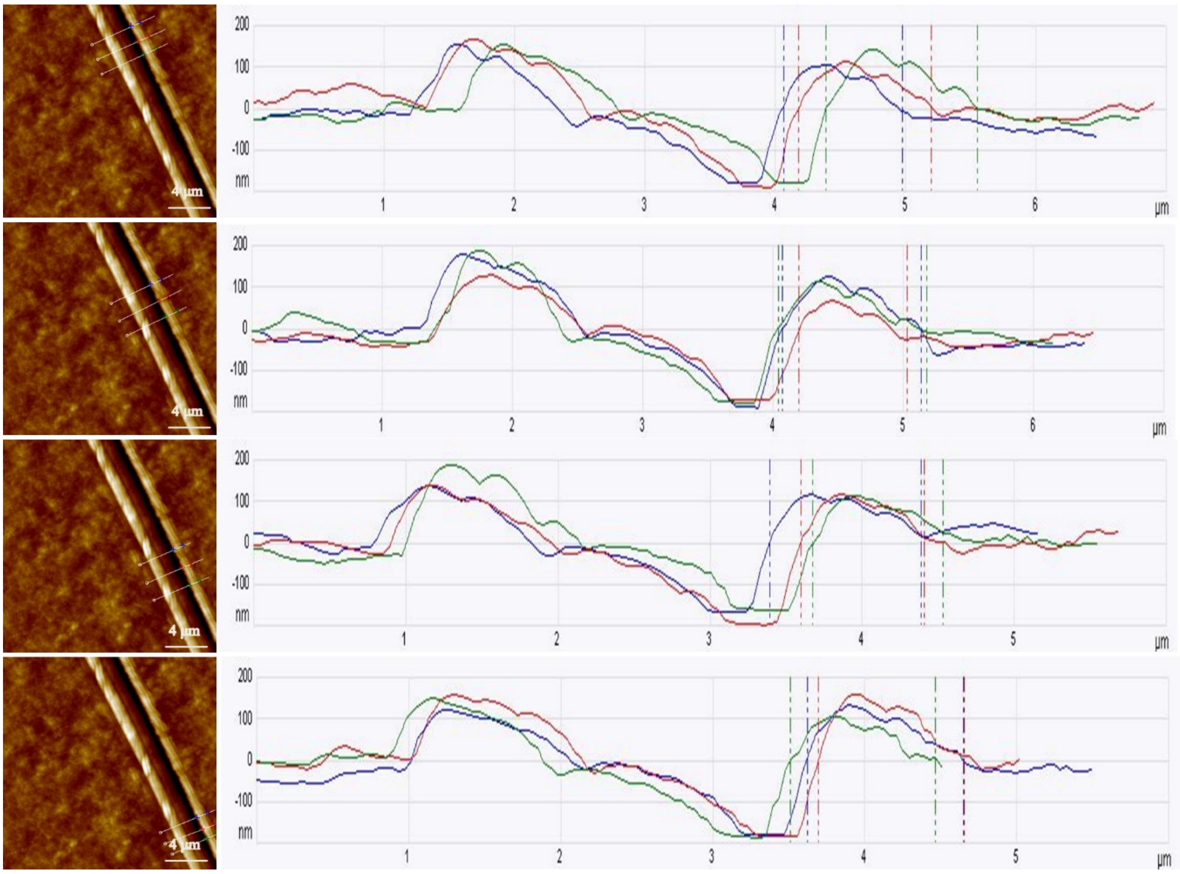

Figure S4. AFM height images and the corresponding cross-section analysis of 12 different positions of the scratch.

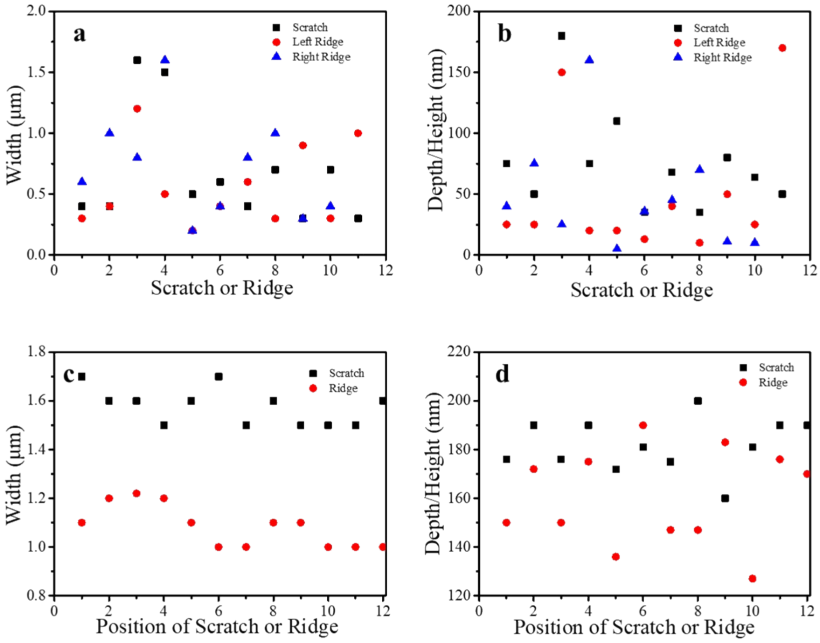

Figure S5. (a) The width and (b) the depth and the height of the scratches and the corresponding ridges. In the x-axis, each point represents one scratch or one ridge shown in Figure S3. (c) The width and (d) the depth and the height of different positions on one scratch and the corresponding different positions of one ridge. In the x-axis, each point represents one position on the scratch or ridge shown in Figure S4.

The scratches and corresponding ridges in scratched films definitely exhibit a very wide range over the size (e.g., depth /or height, and width), such as shown in Figure S3. Figure S5a and b show that the width and depth of different scratches ranges from 0.3 µm to 1.6 µm, and 35 nm to 180 nm, respectively. The width and height of the corresponding ridges ranges from 0.2 µm to 1.6 µm, and 5 nm to 170 nm, respectively. Even for single scratch and the corresponding ridge, the value of size measured at different positions vary broadly (Figure S4). Figure S5c and d show that the width and depth of the scratch at different positions ranges from 1.5 µm to 1.7 µm, and 160 nm to 200 nm, respectively. The width and depth of the corresponding ridge ranges from 0.8 µm to 1.2 µm, and 72 nm to 190 nm, respectively.

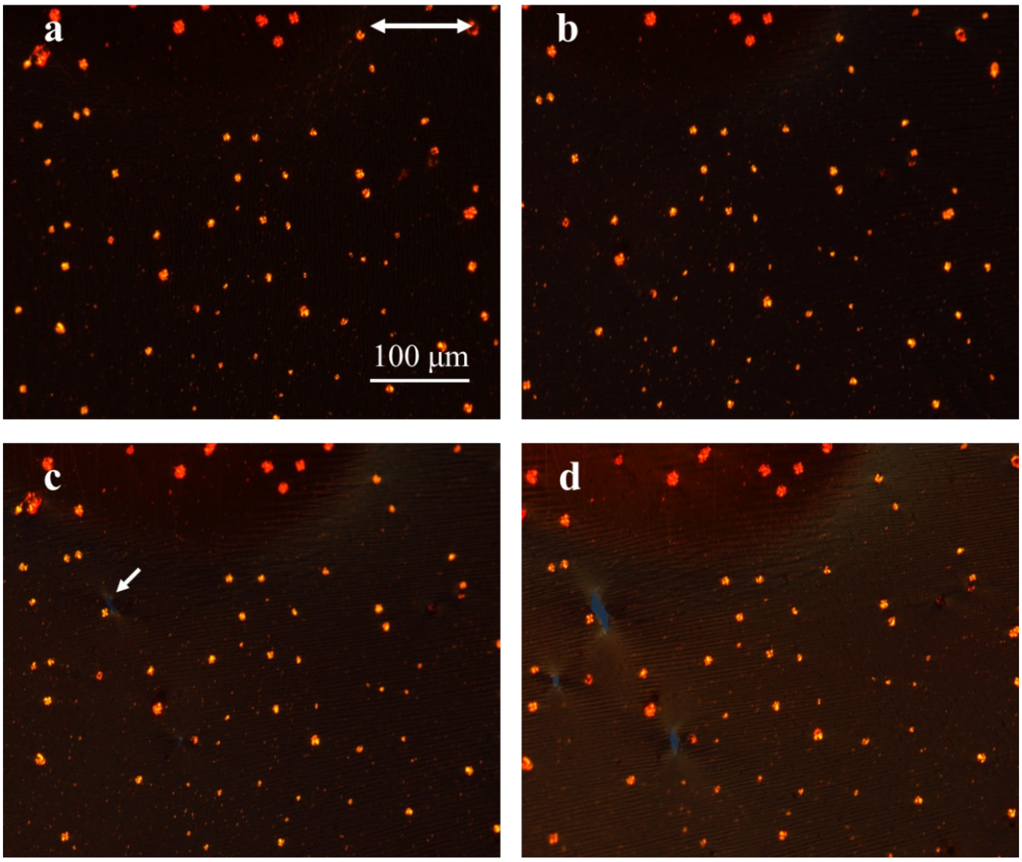

Figure S6. Polarized optical microscopy images of P3BT film with stochastic spherulites elongated under different strains: (a) 0%, (b) 4%, (c) 13% and (d) 22%. The white double arrow in (a) shows the stretch direction.

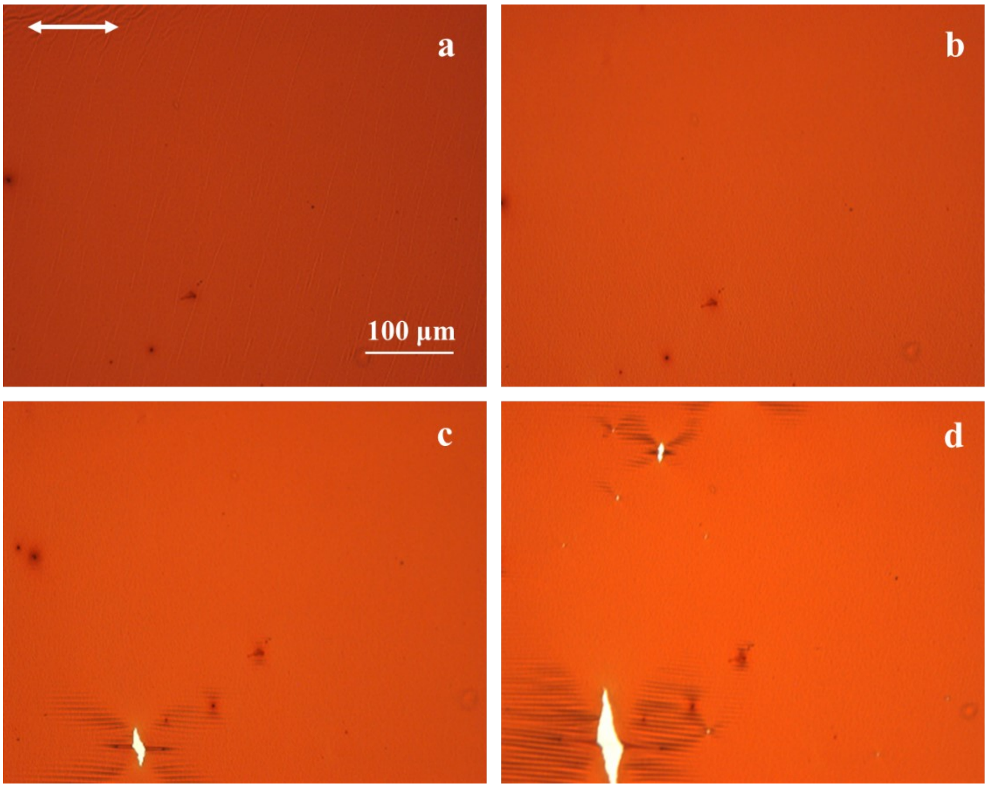

Figure S7. Polarized optical microscopy images of as cast P3BT film elongated under different strains: (a) 0%, (b) 16%, (c) 27% and (d) 45%. The white double arrow in (a) shows the stretch direction.

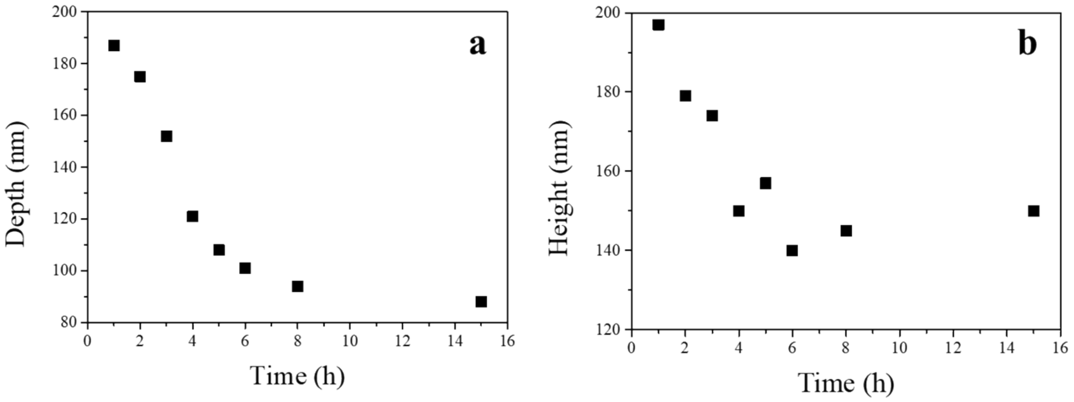

Figure S8. (a) The depth of the scratch and (b) the height of the ridge vary with the CS_2 vapor annealing time. The measurement positions on the scratch and the ridge are fixed under each annealing time.