Supplementary Material (ESI) for Journal of Materials Chemistry

Supplementary Information

Low temperature and solvent-free solution-processed passivation layer for improved long-term stability of organic field-effect transistors

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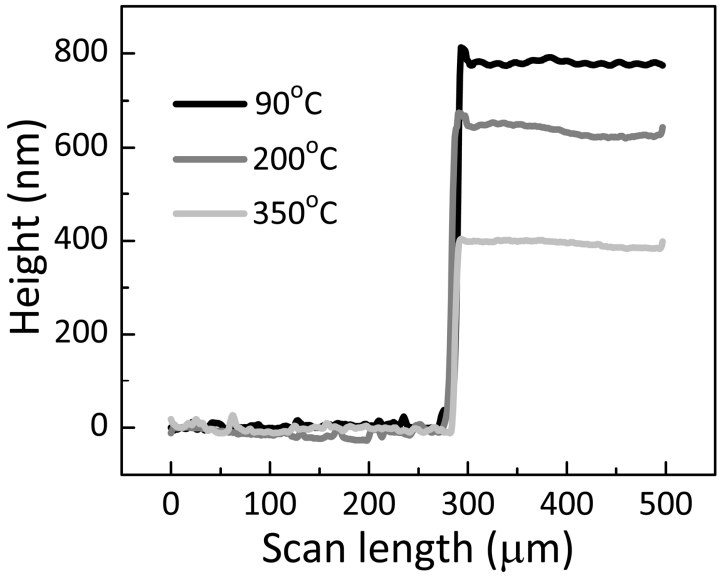

Figure S1. The height profiles of TGD622t films cured at 90°C, 200°C, and 350°C and corresponding thicknesses of the films were about 790, 650 and 400 nm, respectively. A surface profiler (Alpha-step® 500, KLA Tencor) was used for measuring the thickness of the films.

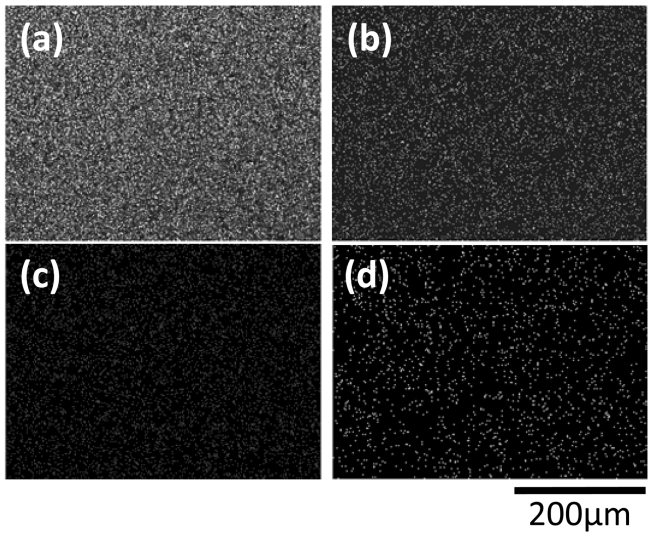

Figure S2. Element distribution mapping images using energy dispersive spectrometry (EDS):(a) Si, (b) O, (c) C and (d) Ti, are the molecules of comprising TGD622t (cured at 90°C). For EDS analysis, the films were identified through scanning electron microscopy (SEM, JEOL JSM-7401F). X-rays generated by the SEM's focused electron beam were collected by the EDS detector. An accelerating energy was 20 keV and number of iterations was 9.

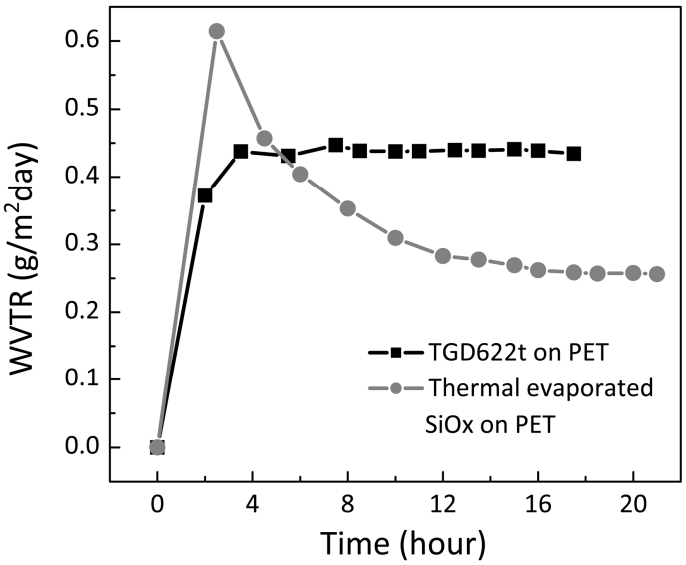

Figure S3. WVTR provided by TGD622t(cured at 90°C) coated PET film and thermal-evaporated SiO_x coated PET film. The WVTR of TGD622t coated PET film was measured to 0.434 g/m^2·day and that of thermal-evaporated SiO_x was about 0.254 g/m^2·day.