Control of polymorphism in thiophene derivates by sublimation-aided nanostructuring

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ELECTRONIC SUPPORTING MATERIAL

Experimental

Thin deposits. [1-4] Thin deposits of **1** were prepared by drop casting of 10 µl of the solution of **1** (1 g/L) (Control samples) and **1** + **2** (**1**=1g/L, **2** =300 g/L) for ASB-SANS samples. The substrates consist of a 10x10 mm^2 piece of silicon covered by 200 nm of thermal oxides[5].

X-Ray Diffraction. XRD were performed in specular geometry using a SmartLab-Rigaku diffractometer equipped with a rotating anode (Cu λ_α = 1.5405 Å), followed by a parabolic mirror to collimate the incident beam, and a series of variable slits (placed before and after the sample position) to reach an acceptance of 0.01°.

Grazing Incidence X-Ray Diffraction (GIXRD) measurements were performed at the beamline XRD1 of ELETTRA synchrotron facility (Trieste, Italy) by using a wavelength of 1 Å and an incident angle of 0.1°. GIXRD images were recorded for 40 seconds by a 2D camera (Pilatus detector), placed normal to the incident beam direction at 350 mm from the sample.

Index of the peaks were attributed considering the structure published in the references[6].

Fluorescence microscopy. Fluorescence images were recorded with a Nikon i-80 microscope equipped with epi-fluorescence (FM) using FM filter Nikon Ex 420, DM 435, BA 475 and Ex 535, DM 570, BA 590. The FM images were recorded using a commercial CCD camera (Nikon CCD DS-2Mv). The illumination was performed by a 100 W Hg lamp at fixed power.

Confocal Fluorescence Imaging. Confocal fluorescence imaging was performed on an inverted Nikon Ti-E microscope (Nikon Co., Shinjuku, Japan) using an argon-ion CW laser as well as 405 nm pulsed/CW diode lasers (PicoQuant GmbH, Berlin, Germany). Images were collected using a Nikon Plan Apo VC 20X air objective with NA 0.8. Filters were set to register the fluorescence intensity in the 510-540 nm, 555-615 nm and 665-735 nm ranges. A Nikon A1 spectral module with a precisely corrected 32-PMT array detector was used for spectral imaging. Wavelength resolution was set to 6 nm per PMT array. Spectral images were obtained by exciting the sample at 488 nm in CW mode.

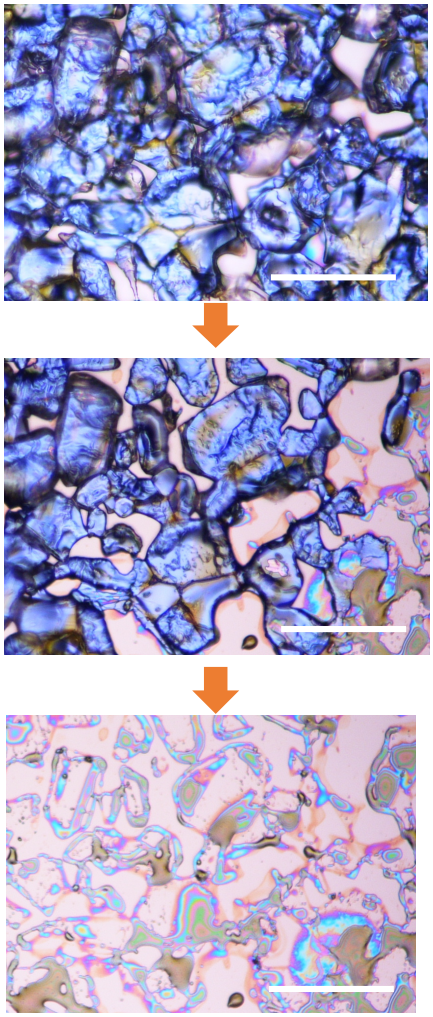

Figure S1. Time laps of the last step of the process: Sublimant compound sublimation

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