

Supplementary Information for

Growth of Extended DNTT Fibers on Metal Substrates by Suppression of Step-Induced Nucleation

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Table of Contents

1. STM micrographs of DNTT/Ag(111) monolayer structures
2. XRD out-of-plane data of DNTT/Ag/Mica
3. XRD out-of-plane data of DNTT/Au(998)
4. AFM micrograph of DNTT fibers on Ag(111) with additional linescan across fibers
5. Comparison of pristine and with oxygen treated Ag(111) surfaces via LEED
6. Optical micrographs of DNTT/Ag(111) multilayer films with different oxygen treatment
7. Optical micrograph of DNTT/Ag(111) film used for in-plane XRD measurements

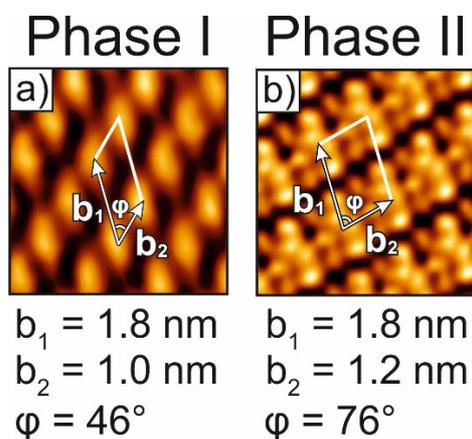


Fig. S1 STM images of Phase I/II of DNTT seed layers on Ag(111) with corresponding unit cell parameters. Determined by complementary STM and LEED measurements. [1]

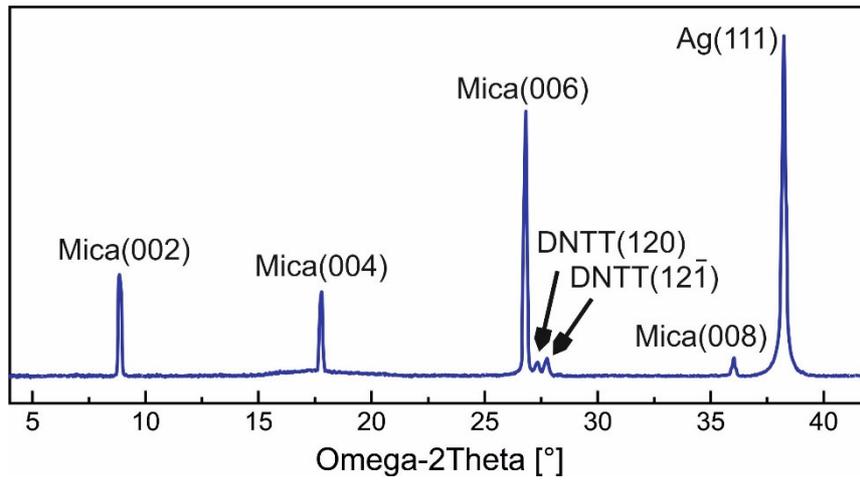


Fig. S2 XRD out-of-plane scan of a DNTT/Ag/Mica film with a nominal thickness of 50 nm. Besides intense substrate peaks of silver and mica also two DNTT-related peaks at 27.3° and 27.8° are observed, which correspond to the DNTT (120)- and (121)-plane.

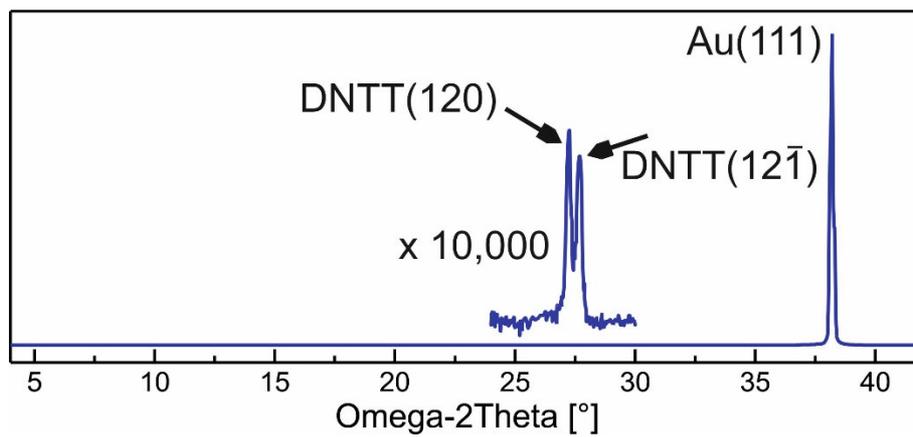


Fig. S3 XRD out-of-plane scan of a DNTT/Au(998) film with a nominal thickness of 50 nm. Peaks corresponding to the DNTT (120)- and (121)-plane.

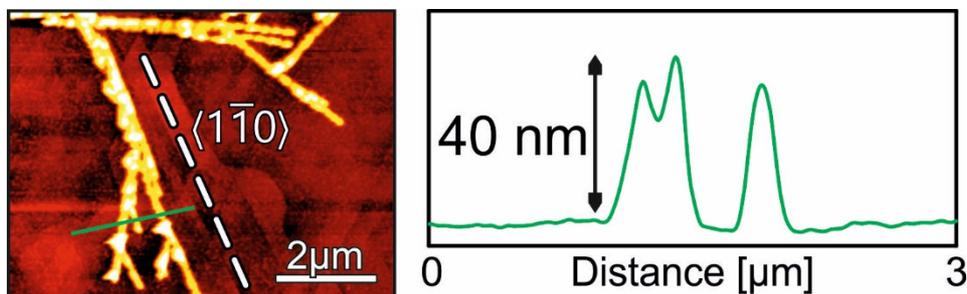


Fig. S4 AFM micrograph of a DNTT/Ag(111) film with a nominal thickness of 1.5 nm together with a corresponding linescan across the fiber structure.

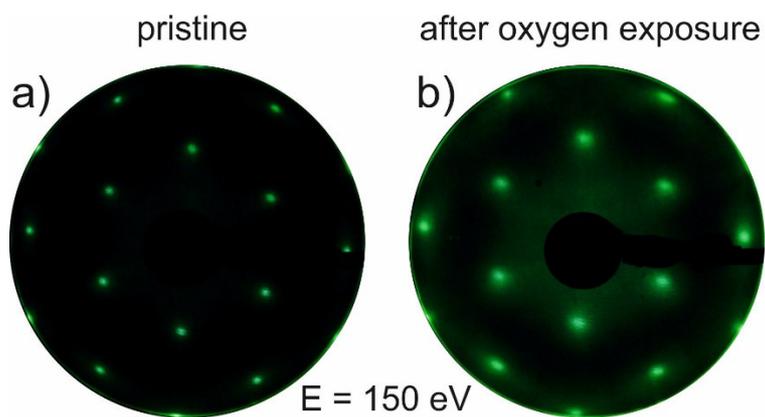


Fig. S5 LEED images of a pristine Ag(111) surface (a) and a Ag(111) surface after oxygen exposure (b), both for an electron energy of 150 eV.

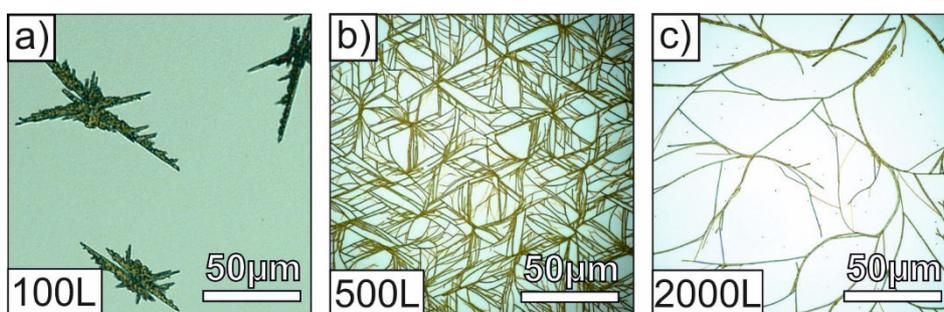


Fig. S6 Optical micrographs of DNTT/Ag(111) films with a nominal thickness of 30 nm deposited at 370 K and pre-dosed with (a) 100 L, (b) 500 L and (c) 2000 L of oxygen. While for low oxygen dosages clustered molecular entities are observed, for higher exposures thin, elongated fibers are yielded. For too large oxygen dosages (~2000 L) these fibers no longer exhibit straight growth directions, but become roundish.

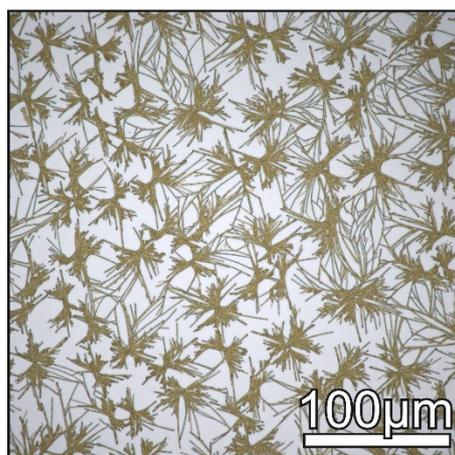


Fig. S7 Optical micrograph of a DNTT/Ag(111) film with a nominal thickness of 100 nm pre-dosed with oxygen, which was used to perform the in-plane XRD measurements in Fig. 5a of the main paper. Besides elongated fibers, also clustered film structures between these fibers are observed, which commonly formed for thicker films.