

Pentacene Film on TiO₂

Nanosurf® - Mobile S HR Application Note No. 00219

Organic semiconductors obtained a lot of interest during the last years, due to their suitability for organic thin film transistor (OTFT) displays. During the last decade the speed of such displays, could be increased by more than a factor of 10000. This was achieved by increasing the mobility of electrons in these films.



7.7 μ m x 7.7 μ m scan range; 55nm z-range

So far, pentacene seems to be the most promising material for OTFT displays. Not only the material quality influenced the speed of the displays, but also the quality and smoothness of the organic film. Therefore a control on the quality and flatness of such films is of great interest.

AFM showed to be a valuable tool for the inspection of such films. The shown AFM image was measured with the MobileS high resolution operated in dynamic mode.

Can be measured with Mobile S
Nanite B
easyScan 2 AFM
easyScan 2
FlexAFM

Application domain: Micro Display
Material Science
Semiconductor