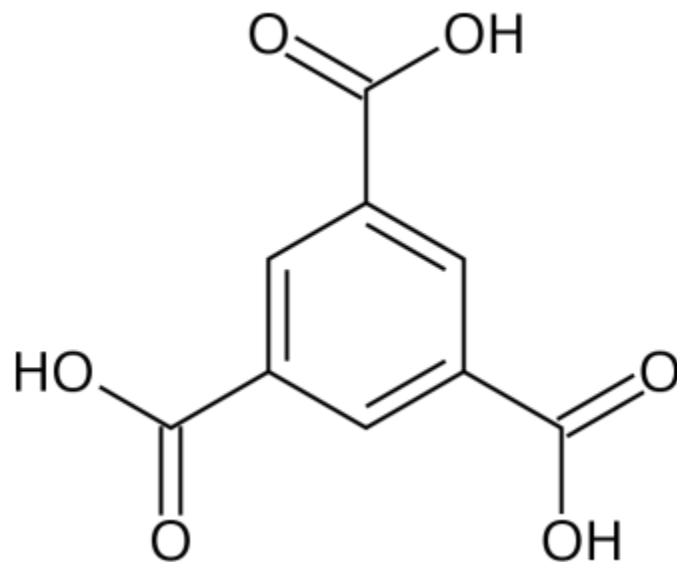
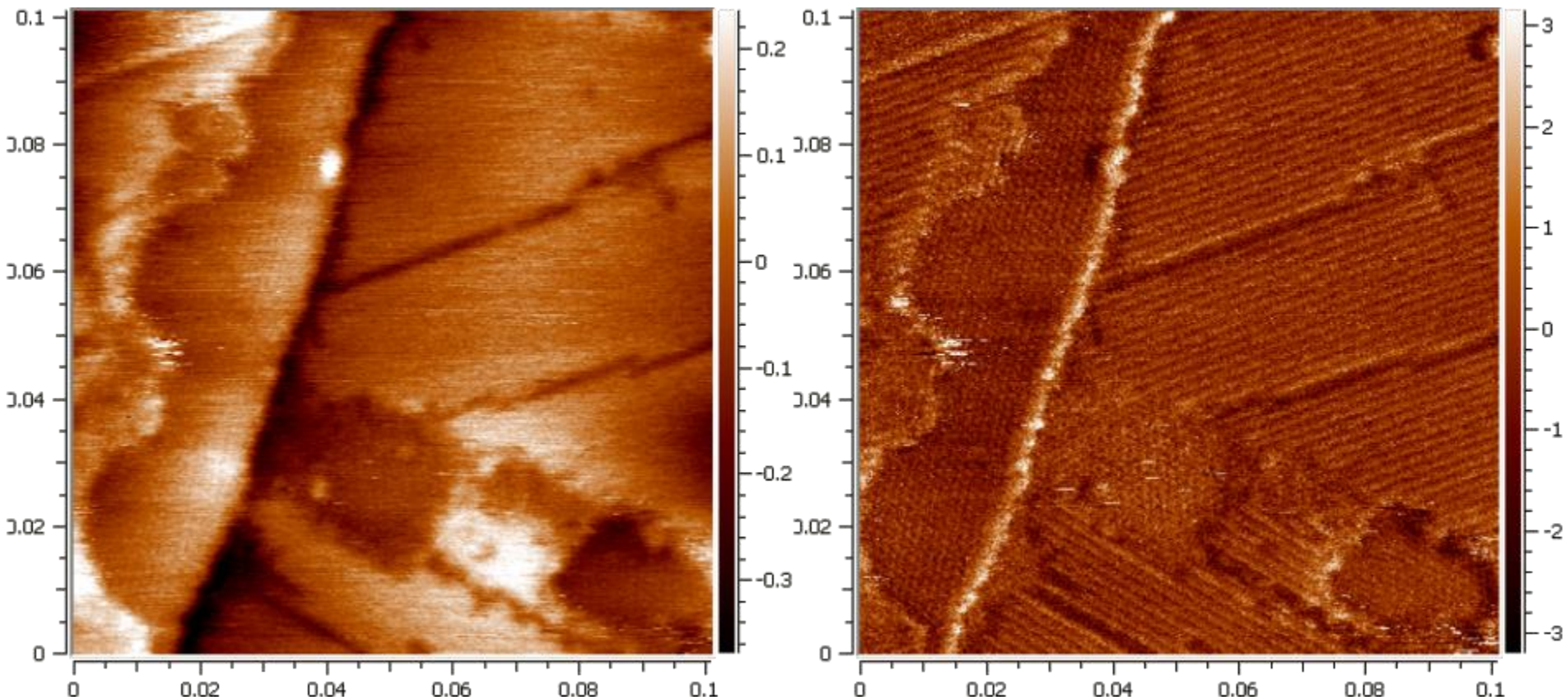
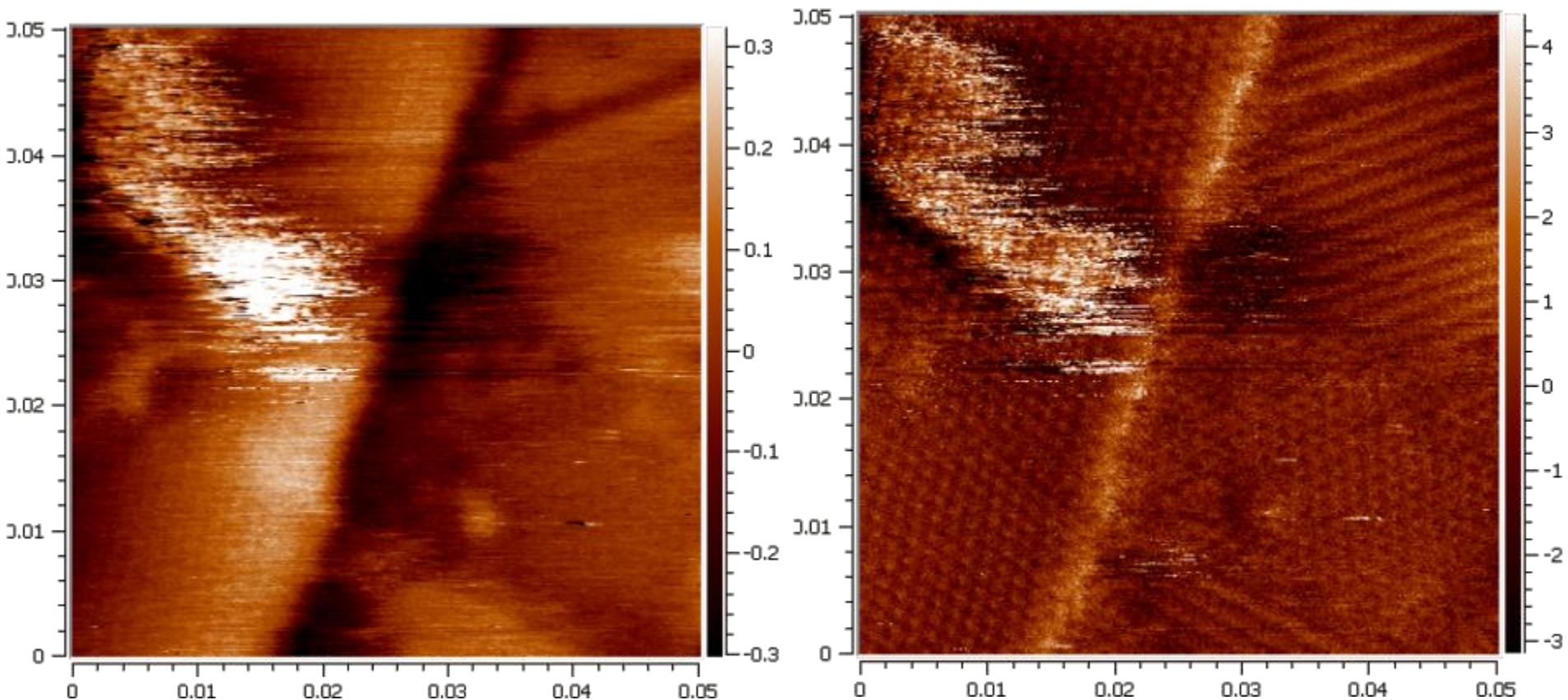


Trimesic Acid on HOPG

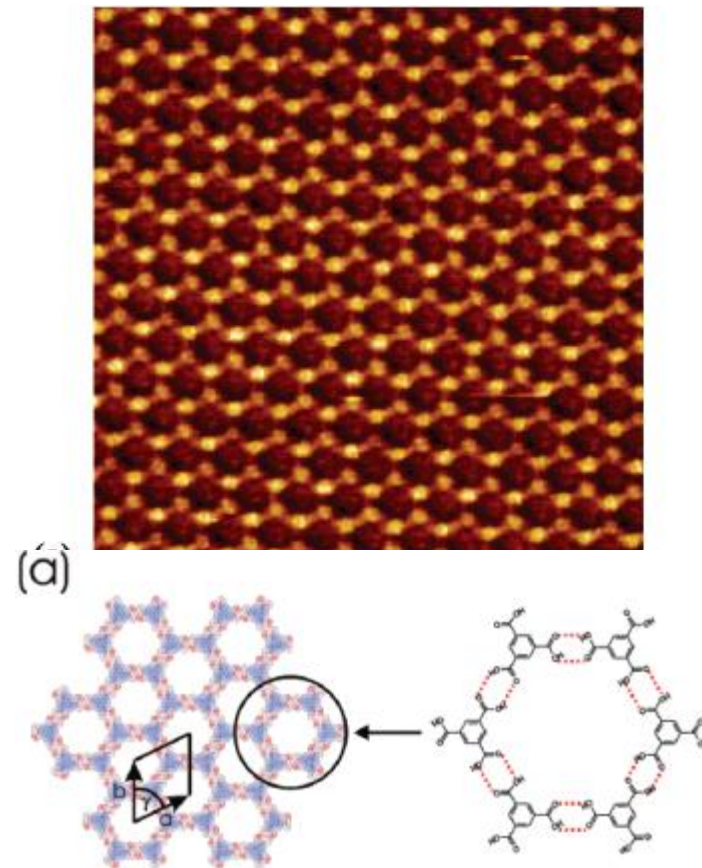
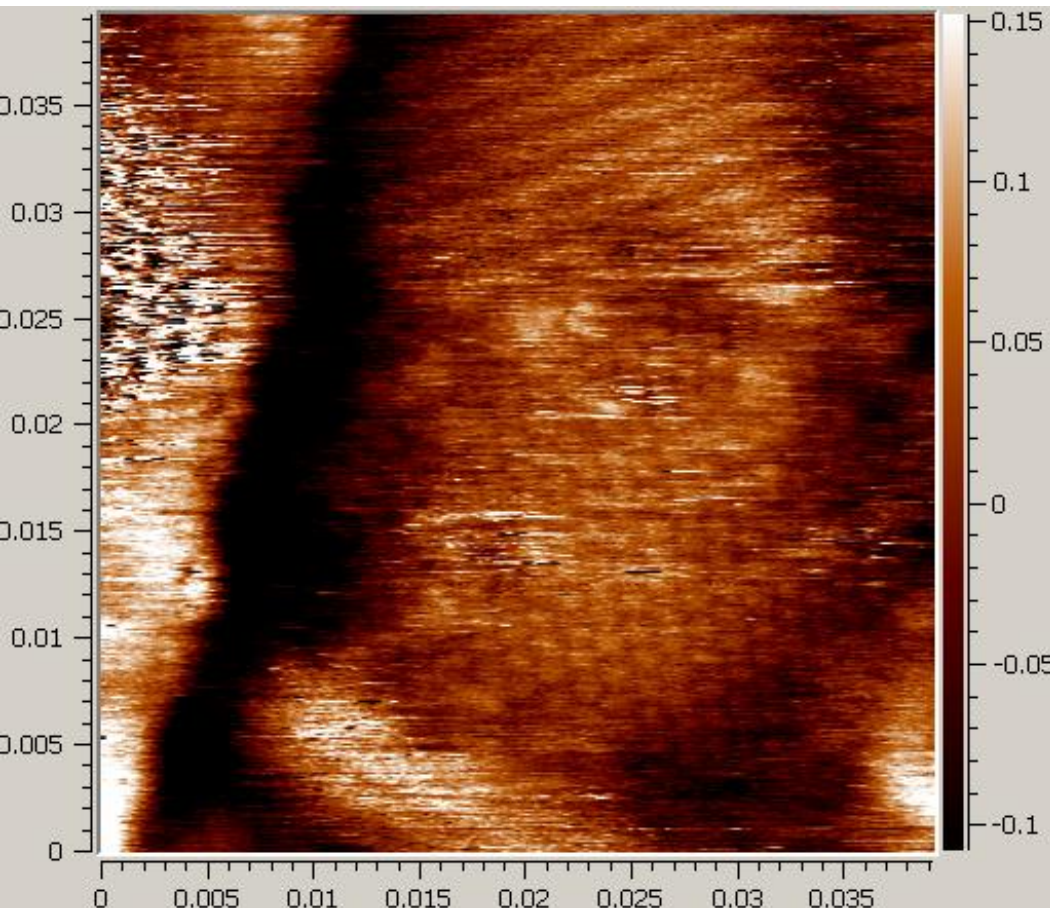




Trimesic Acid on HOPG. 100nm topography (left) and the phase images. In the phase image two different types of arrangement of the molecules of trimesic acid on HOPG are clearly seen: linear lamellae and hexagonal packing.

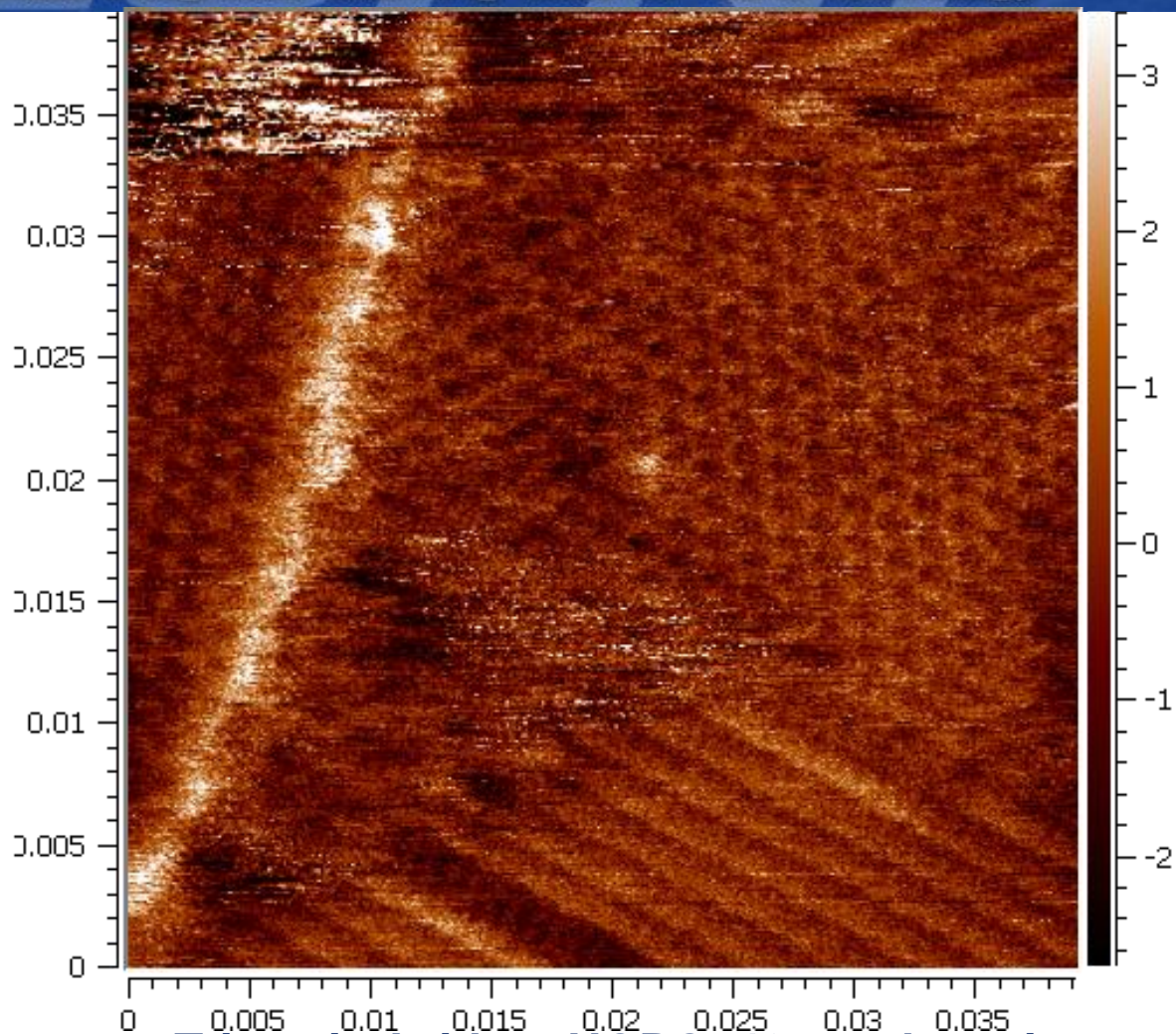


Trimesic Acid on HOPG. 50nm topography (left) and the phase images. In the phase image two different types of arrangement of the molecules of trimesic acid on HOPG are clearly seen: linear lamellae and hexagonal packing.



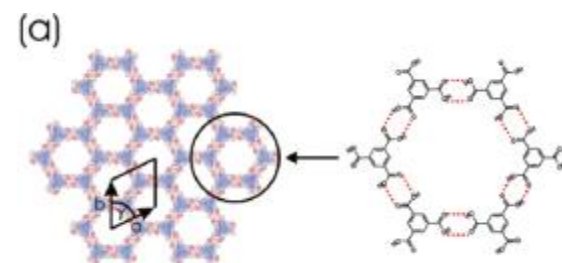
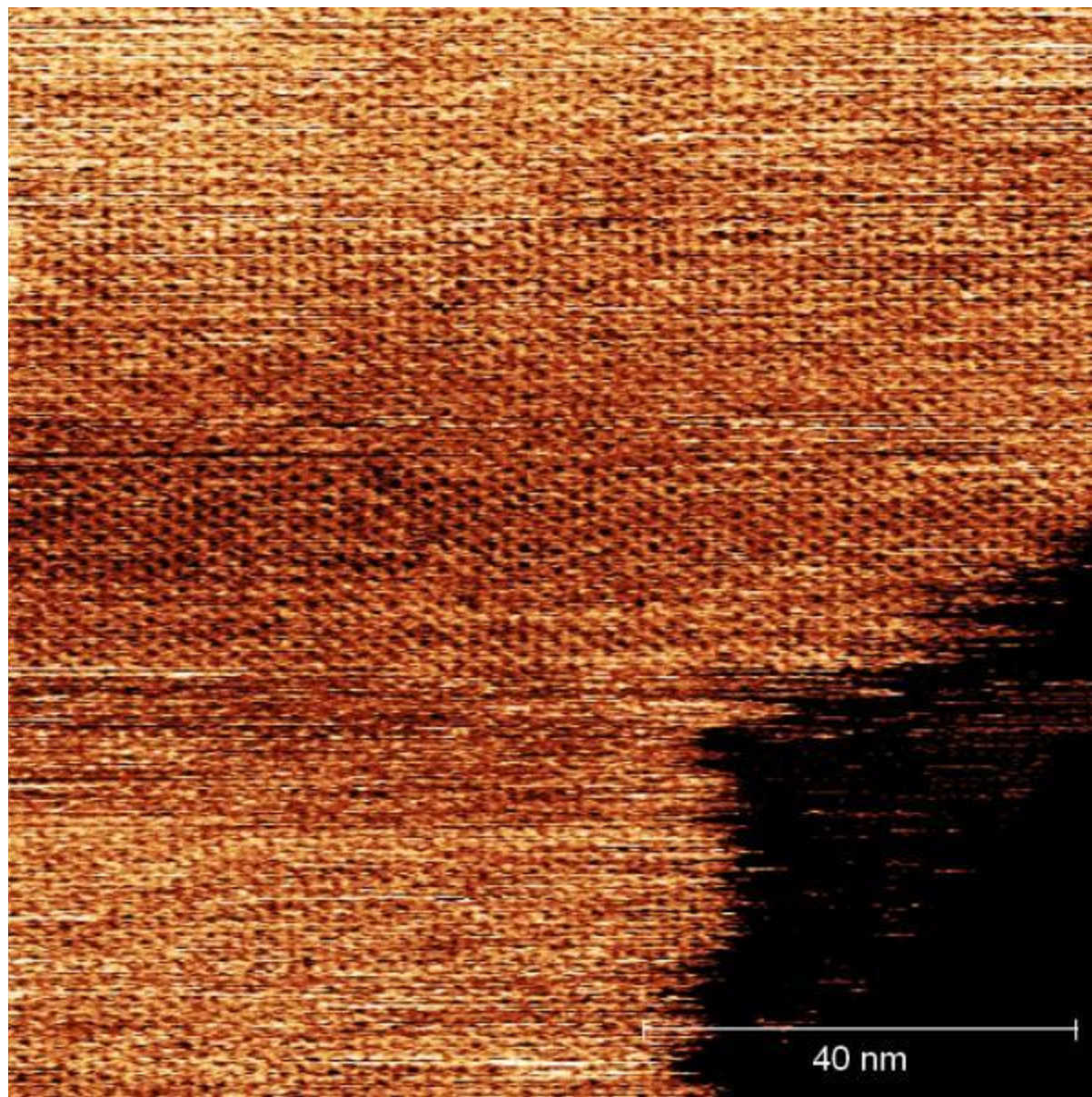
Trimesic Acid on HOPG. 40nm topography (left) and the STM image with a model of the “chickenwire” molecular packing (Langmuir 2005, 21, 4984-4988)

It is not clear why the topography image looks reversed compared to what it should be from the model.



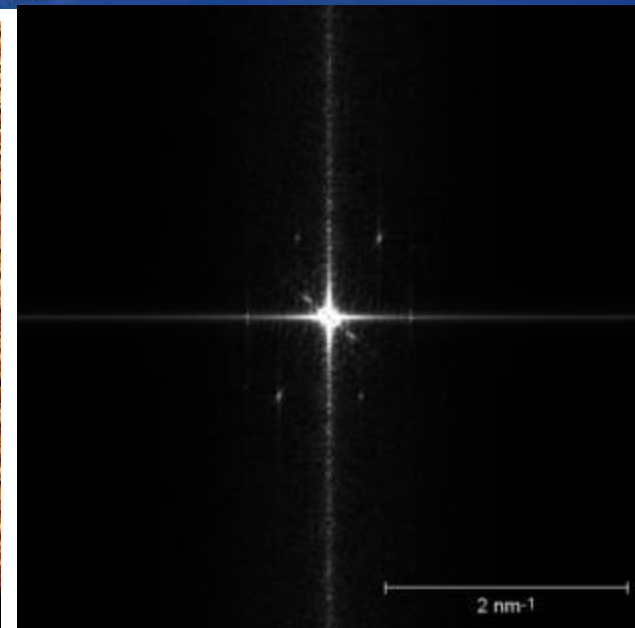
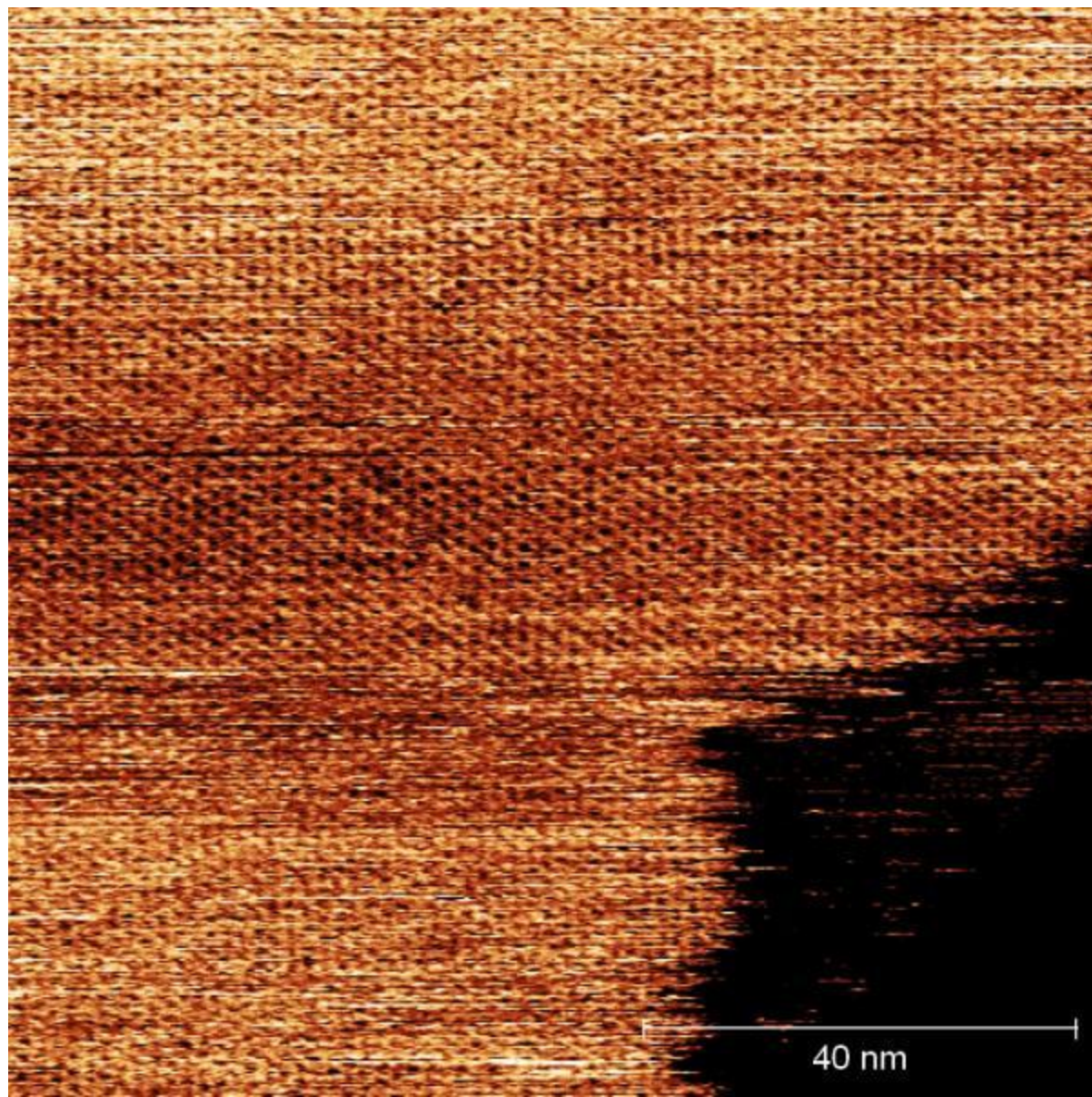
Trimesic Acid on HOPG. 40nm phase image.

Traces of internal structure of the lamellae can be distinguished in this image. True molecular resolution in ambient conditions is practically achieved.

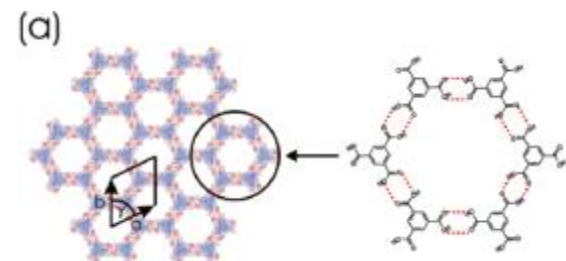
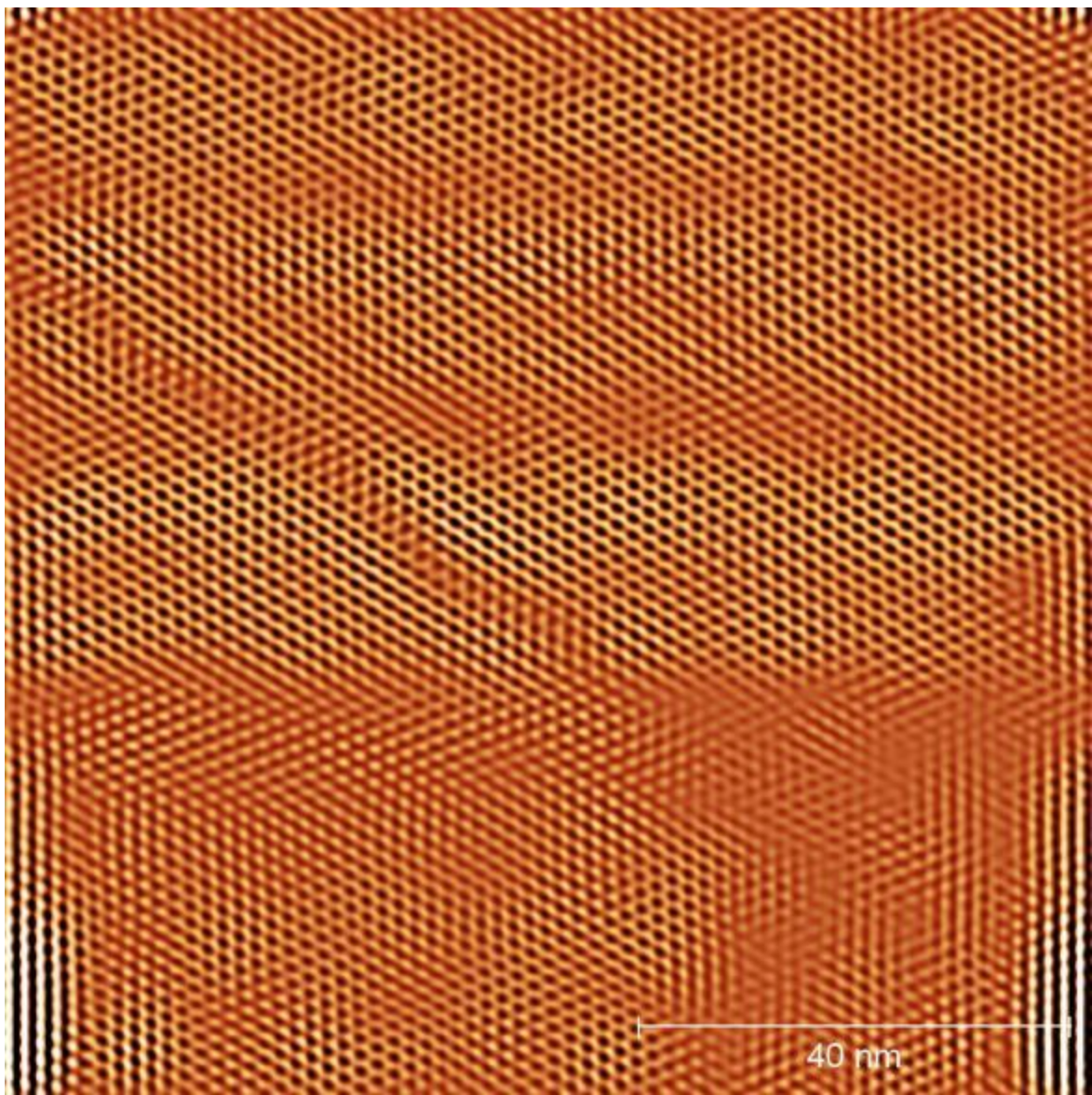


**Trimesic Acid on HOPG.
100nm topography and
the model of the
“chickenwire” molecular
packing (Langmuir 2005,
21, 4984-4988)**

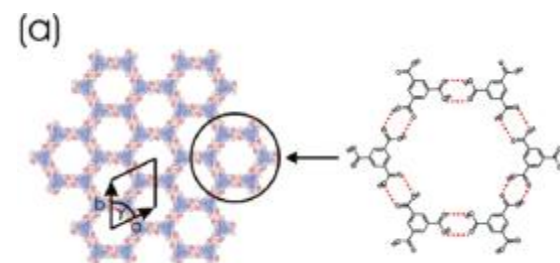
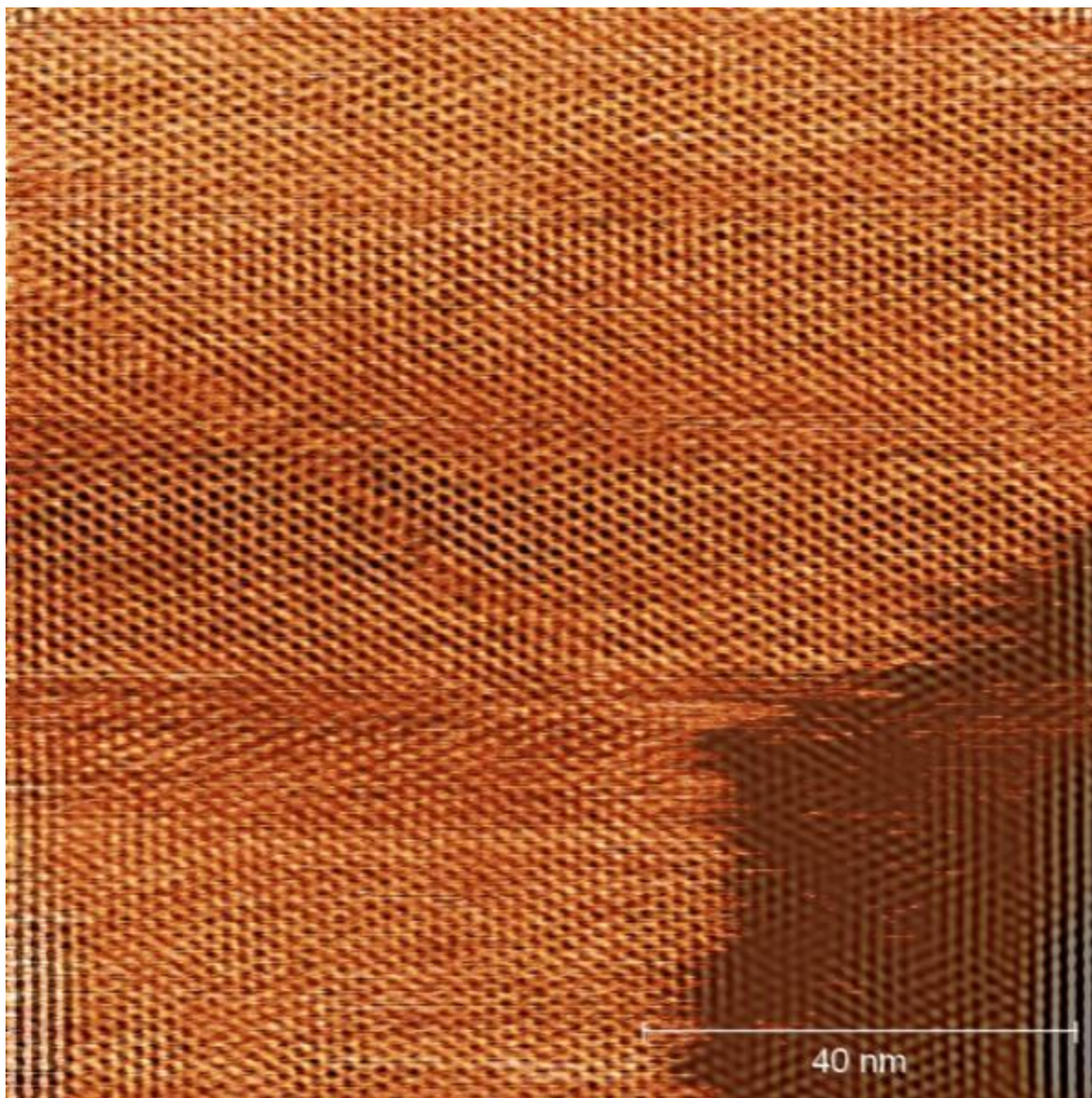
**In this sample for the first
time we’ve been
successful in obtaining
topography correlated
with the model.**



**100nm topography and
2D FFT analysis**
In this sample for the first
time we've been
successful in obtaining
topography correlated
with the model.



**Trimesic Acid on HOPG.
100nm filtered
topography image of the
area from previous slide.
The angle and the pitch of
the voids in AFM image
are very close to the
model values.**



**Trimesic Acid on HOPG.
100nm filtered image
overlaid with 50%
transparency over the
original topography
image .**