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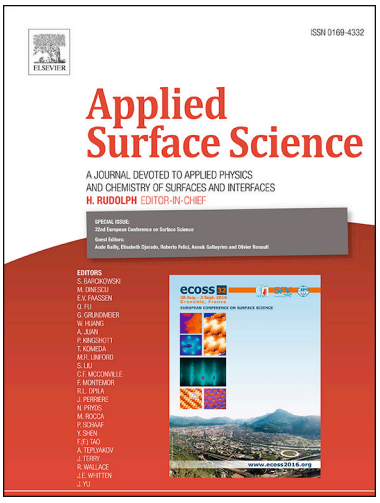

Full Length Article

Adsorption behavior of Zn Porphyrins on a (101) face of anatase TiO_2

Lukasz Zajac, Lukasz Bodek, Bartosz Such

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Adsorption behavior of Zn Porphyrins on a (101) face of anatase TiO_2.

Lukasz Zajac [a, ‡], *Lukasz Bodek* [a, *,‡], *and Bartosz Such* [a,*]

[a] Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University, S. Lojasiewicza 11, 30-348 Krakow, Poland.

[*] Corresponding authors.

‡ These authors contributed equally.

ABSTRACT

The adsorption behavior of porphyrin molecules on anatase TiO_2(101) has been investigated with scanning tunneling microscopy (STM) in ultra-high vacuum (UHV) at room temperature. At low coverage, the ZnTPP molecules have a tendency to adsorb on the one type of step edges forming molecular chains. Due to relatively high mobility of molecules stable assemblies appear only close to a monolayer coverage. Zn porphyrins in self-assembled molecular domains form a commensurate structure. In–plane rotation of the molecules leads to formation of two domains of different chirality.

INTRODUCTION