

Abstract Submitted
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Substrate mediated smooth growth of para-sexiphenyl on graphene BENE POELSEMA, University of Twente, GREGOR HLAWACEK, University of Twente and University of Leoben, FAWAD S. KHOKHAR, RAOUL VAN GASTEL, University of Twente, CHRISTIAN TEICHERT, University of Leoben, MESA+ INSTITUTE FOR NANOTECHNOLOGY, UNIVERSITY OF TWENTE COLLABORATION, INSTITUTE OF PHYSICS, UNIVERSITY OF LEOBEN COLLABORATION — We report on the layer-by-layer growth of lying para-sexiphenyl (6P) molecules on metal supported graphene flakes. The formation of multilayers has been monitored in situ by means of LEEM. μ -LEED has been used to reveal a bulk-like structure of the submonolayer, monolayer and multilayer regime. Graphene is a flexible, highly conductive and transparent electrode material, making it a promising technological substrate for organic semiconductors. 6P is a blue light emitting molecule with a high charge carrier mobility. The combination of an established deposition technique with the unique properties of organic semiconductors and graphene is an enabler for future flexible and cost efficient devices based on small conjugated molecules.

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