

SEMINAR aus Halbleiterphysik und Nanotechnologie

Mo, 28.11.2016, 16:30 Uhr, Hörsaal für Physik

“Synthesis of rod-like molecules”

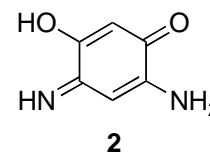
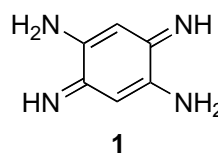
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The rich chemistry of molecules exhibiting a quinoid structure has attracted the interest of a large scientific community for decades owing to their implications in a wide range of science including in nanoscience. A critical element in designing and fabricating new dye-based materials is the control of the pi-distribution and the nature of the heteroatoms. 2,5-Diamino-1,4-benzoquinonedimine **1** is a very long known molecule (1887)^[1] that has been poorly investigated owing to its low solubility and its unstability in solution. We decided to revisit the chemistry of **1** in order to elaborate new materials that are of major interest in many technological sectors. Our strategy is based on the incorporation of **1** in extended molecules for the construction of materials with different morphology and electronic properties.^[2,3]

The different approaches and the key role of this small unit (**1**) incorporated in the nano-objects

will be described and discussed in the presentation. In addition, the related molecule (**2**) will be also reported in order to highlight the crucial influence of the heteroatoms in the construction of large molecular architectures.^[4]



[1] R. Nietzki, E. Hagenbach, *Ber. Dtsch. Chem. Ges.* 1887, 20, 328.

[2] a) H. Audi, Z. Chen, A. Charaf-Eddin, A. D'Aléo, G. Canard, D. Jacquemin O. Siri *Chem. Commun.* 2014, 50, 15140. b) J. Andeme Edzang, Z. Chen, H. Audi, G. Canard, O. Siri *Org. Lett.* 2016, 18, 5340.

[3] a) Z. Chen, M. Giorgi, D. Jacquemin, M. Elhabiri, O. Siri *Angew. Chem. Int. Ed.*, 2013, 52, 6250.

[4] a) O. Siri, P. Braunstein, *Chem. Commun.*, 2002, 208. b) M. Koudia, E. Nardi, O. Siri, M. Abel *Nano Research* 2016, DOI :10.1007/s12274-016-1352-y.