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Thin Organic Films for Spintronic Applications

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Abstract

The activities of the Semiconductor Physics group in Chemnitz concentrate on the spectroscopic characterization of semiconductor interfaces, ultra-thin films, and low dimensional structures. In many cases the systems studied are composed of organic/inorganic hybrid structures. After presenting a brief overview of our research activities I will focus on the research within the DFG Research Unit "Towards Molecular Spintronics". Here two classes of molecules are addressed, namely the well-known phthalocyanines and newly synthesized multi-metal core molecules. In this talk the work involving the phthalocyanines is emphasized. Our task in the Research Unit is the spectroscopic characterization of their interfaces to ferromagnetic electrodes using (magneto -) optical and electron spectroscopies. Consequently results obtained using Raman spectroscopy will be presented.