

Dienstag, 07.06.2011

Hörsaal D, Chemie Zentralbau, 17:15 Uhr

Sprecher: Jörg Wrachtrup
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Thema: Photoactive carbon nano materials

Abstract: Carbon nano materials have gained an enormous amount of interest over the past years. Prominent examples are carbon nanotubes and graphene. Also small diamond-like systems such as diamondoids or nanodiamonds as well as nanostructured diamond have attracted considerable interest. Mostly this is due to their versatile use as electronic materials but also because of their chemical controllability and biocompatibility. Additionally some of those structures like graphene or doped diamond possess outstanding optical properties. These will be described in the talk. Atom-like impurity in diamond for example do show strong absorption and emission which are retained even when the carbon cluster around them is only a few hundred atoms large. Such photoactive material shows exceptional sensing behavior and may be of versatile use as biomarkers. They are at the verge between a solid material and molecular entities providing a challenge both to material scientist but also to our understanding of their physical characteristics.

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Weitere Informationen unter
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