

MS36- Structure and function in inorganic and coordination complexes

Chairs: Dr. Attila Benyei, Prof. Alessandra Crispini

MS36-P01

Luminescent π - π -assembled complexes of Zn and Cd with anthracene functionalized ligands

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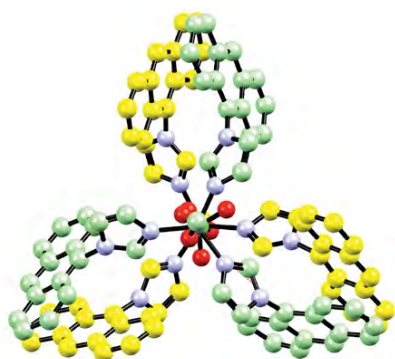
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The most promising materials nowadays in the field of soft materials coordination compounds are the compounds able to produce and harvest great luminescent properties. In this respect coordination polymers with highly emissive light fluorophores are the most attractive. Introducing highly luminescent fluorophores into rigidifying net or framework could enhance the stability and versatility of the material in application in different fields of technologies such as sensors¹, non-linear optics², up-conversion materials³.

The main goal of this study is to investigate the luminescent properties of new coordination polymers of Zn(II) and Cd(II) with highly luminescent new anthracene fluorophores. The study of photoluminescent properties with quantifying the lifetime and quantum yield with respect to the crystal structure of Zn(II) and Cd(II) coordination polymers will be presented. The first part will include fundamental studies to understand structure integrity with optical properties observed. And the second will include the part of tight description of this correlation with a stepwise tunable approach to luminescence by inserting different guest molecules. The response of luminescence of such host-guest interaction will be also described and studied.

Different coordination polymers with Zn(II) and Cd(II) will be presented, synthesized on the basis of 9-substituted anthracene building blocks (fig.1.), their luminescent properties will be discussed as well.



References:

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