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KATEDRA ANORGANICKÉ CHEMIE

Přírodovědecká fakulta UK v Praze

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Gd-based Nanosized Systems as Highly Efficient Magnetic Resonance Imaging (MRI) Probes

Přednášející:

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Abstrakt: In recent years, novel, better, and more complex systems have been developed in which Gd^{III} chelates are attached to macromolecular substrates or incorporated into nanoparticles. These magnetic resonance imaging (MRI) nanoprobes make it possible to deliver to the site of interest a large number of Gd^{III} ions and, thus, increasing the sensitivity of the technique. In order to optimize the relaxivity, we need to use Gd^{III} complexes with higher hydration number, control the rate of exchange of the bound water molecule(s), and restrict the local rotational motions of the conjugated complexes. The increase in relaxivity of the individual Gd chelates leads to significant relaxivity enhancement of the nanosized systems.

**Přednáška se bude konat 14. dubna 2014 (pondělí) ve 14:00 hodin
v posluchárně CH-2, budova chemických kateder PŘF UK v Praze.**