

Colloidal LiYF₄:Pr nanocrystals downsized to 10 nm – Part 2: spectroscopic properties

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Nanocrystalline LiYF₄:Pr promises exciting design opportunities for composite photonic devices. Here, we present an in-depth spectroscopic investigation on monodispersed colloidal LiYF₄:Pr nanocrystals of 10nm size. We observed an unexpected yet intense emission with comparably long lifetimes. These results pave the way for applications in quantum optics or biomedicine.

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