

**“Luminescent Nanoparticles – Photophysics,  
Photoluminescence Quantum Yields, and Surface  
Functionalities ”**

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Luminescent particles such as spectrally shifting lanthanide-based nanocrystals (LnNCs) like NaYF<sub>4</sub>: Yb, Er, semiconductor quantum dots, and luminophore-labelled or doped silica and polymer particles are broadly applied in the life and material sciences. The identification of optimum particle architectures and surface chemistries for photonic applications requires quantitative spectroscopic studies of the application-relevant optical properties and simple methods for the determination of surface functionalities. In this context, photoluminescence studies of different luminescent nanocrystals are presented with focus on LnNCs. Also, methods for the determination of particle brightness and photoluminescence quantum yield are presented as well as examples for the determination of surface functionalities with optical assays.

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Besucher sind herzlich willkommen!

**Der Ortsverbandsvorsitzende:**

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