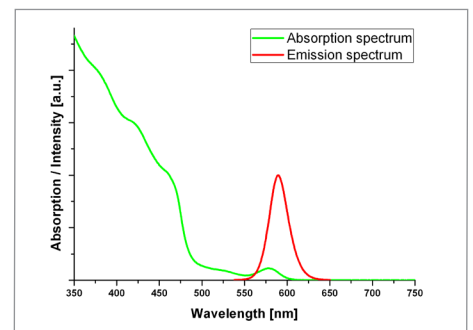


## CANdots® Series A *plus*

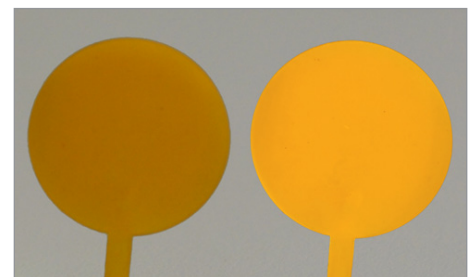
CANdots® Series A *plus*: fluorescent semiconductor nanocrystals available in three different emission colors (green, orange and red). Based on our profound knowledge in the nanoparticle synthesis, morphological features have been optimized to yield advanced optoelectronic properties. These are an enhanced quantum efficiency and an extremely high extinction coefficient resulting in a brightness up to ten times that of normal spherical dots.



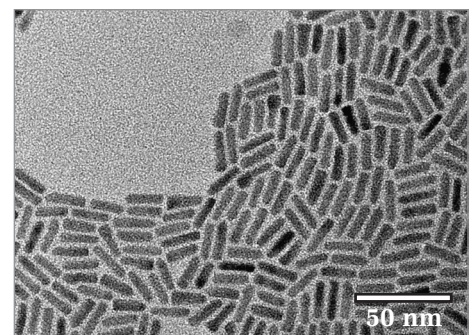
Due to their distinct shape these nanocrystals exhibit higher photo- and thermostability. Combining the advantages with a superior processability caused by the efficient shielding via an outer organic shell makes CANdots® Series A *plus* highly suitable for many technical and life science applications. Among others, these are solid state lighting (LED) and lasers as well as demanding fluorescence imaging tools. Further customization of our CANdots® Series A *plus* particles can be done to provide the best solution for your application, where fluorescence is essential.



Absorption- and emission spectrum of CANdots® Series A *plus* (590 nm emission)



Polymeric compounds including CANdots® Series A *plus* showing their processability (left: without excitation, right: with excitation)



TEM image of elongated core/shell particles

Features		Advantages	
Material	CdSe/CdS core/shell nanoparticles	Elongated structure	high photo- and thermostability
Solubility	nonpolar organic solvents	Efficiently shielded core	quantum yield above 60%
Excitation wavelengths	from UV to VIS possible	Higher extinction coefficient	increased brightness compared to dots
Emission maximum	560, 590 and 620 nm (2.2, 2.1 and 2.0 eV)	Stabilizing organic ligand shell	enhanced processability
FWHM	typically < 35 nm	Monodispersity of CANdots®	narrow fluorescence band

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