

Center for Applied Nanotechnology

CANdot Series A

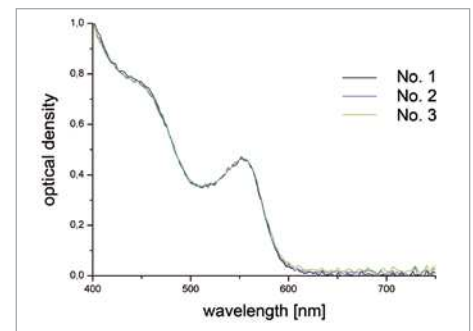
CANdot Series A: fluorescent nanoparticles covering the visible wavelength range from 480 to 620 nm. Soluble in nonpolar organic solvents like hexane, chloroform or toluene these particles have a narrow size distribution and are therefore characterized by narrow fluorescence bands and high photostability.



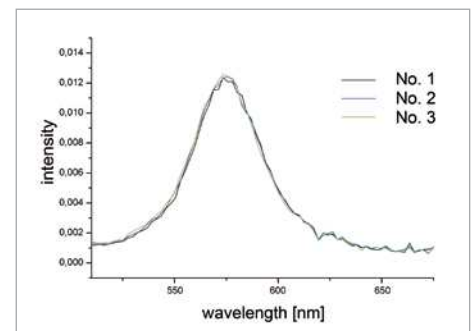
An innovative, patent-protected production process allows production even of larger amounts of nanoparticles at a much lower cost than before. Another advantage over previous production processes is the very good reproducibility of particle properties.

Research facilities as well as product development will profit from this never before achieved reproducibility.

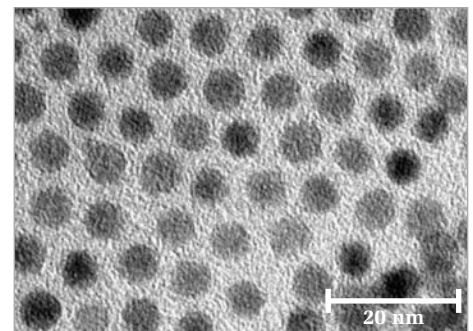
Others will follow the Series A to be launched at the European trade fair, allowing broader use especially in the field of medical research and rounding off CAN's portfolio of fluorescent particles.



Absorption spectra of 3 different batches



Emission spectra of 3 different batches



TEM image

Features	
Material	CdSe/CdS core/shell nanoparticles
Solubility	nonpolar organic solvents
Bandgap	2.0 – 2.6 eV
Emission maximum	480 – 620 nm
FWHM	32 nm

Advantages	
High reproducibility	0.1 % significance
Small particle size distribution	new patented production process
Narrow fluorescence band	monodispersity of CANdots
Improved quantum yield	stabilising organic ligand shell
High photosensitivity	core/shell structure

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