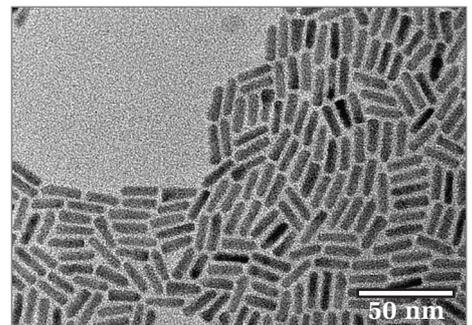


Nanoparticles made by CAN GmbH

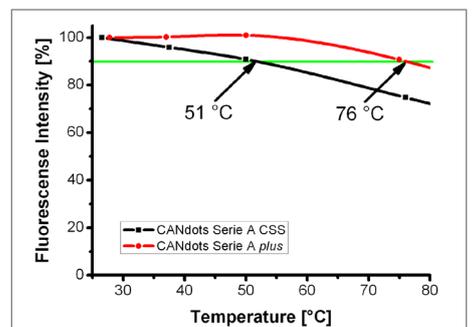
CAN GmbH has developed a variety of fluorescent nanoparticle systems for the use as phosphors in lighting – **CANdot® Series A, C and X**. They feature small particle diameters, narrow size distributions and long term stability. In addition, they exhibit exceptional fluorescence properties like high quantum yields, tunable emission wavelength and thermal stability which make them suitable for a broad range of applications.



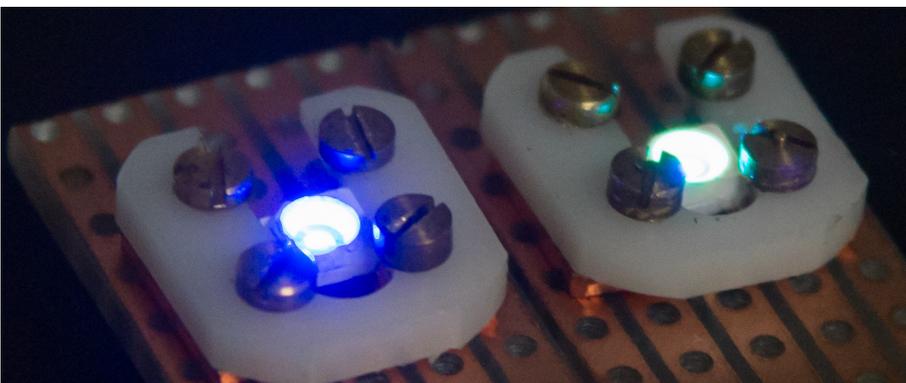
CANdot® Series A under UV excitation



TEM image of CANdot® Series A plus QRs



Thermal stability of spherical Series A CSS vs. elongated Series A plus NPs in solution



A patent pending continuous flow process allows for production of even larger amounts of these nanoparticles at a much lower cost than ever before. In addition, this procedure ensures high reproducibility of all particle properties at every production volume.

Due to high thermal and long term stability of our particles they are particularly suitable as fluorophores in LEDs where these properties are at a premium.

CAN GmbH offers **CANdot® Series A** with emission wavelengths spanning the VIS range and **CANdot® Series C** spanning the IR range. **CANdot® Series X** features very narrow emission at distinct wavelengths from the VIS to IR.

To facilitate easy application, CAN GmbH offers customizable dispersibility of **CANdot® Series A, C and X** for different solvents, inks and paints or solid matrices via chemical engineering.

CANdot® Series A and C		CANdot® Series X	
Material	semiconductor (Cd- or Pb-based)	Material	rare-earth doped vanadates/phosphates
Dispersibility	nonpolar organic solvents (e.g. hexane)	Dispersibility	polar solvents, like water and alcohols
Emission	narrow emission peaks	Emission	distinct emission peaks (blue, green and red)
Emission wavelength	Series A: 530 – 620 nm Series C: 1 - 1.6 µm	Emission wavelength	emission depending upon dopant

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