

Dynamics of Exciton-Mn Energy Transfer in Mn-doped CsPbCl₃ Perovskite Nanocrystals

Supporting Information

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Calculation of average doping radius in Mn-doped CsPbCl₃

Assuming the average doping concentration (20 Mn/particle) and particle volume (1000 nm³), the average Mn volume density is 50 nm³. The average doping radius $\langle r \rangle$, assuming a constant doping density (ρ), can be found by as follows:

$$\langle r \rangle = A \int_0^R \rho * r * 4\pi r^2 dr = A * \rho * \pi R^4 = \frac{3}{4} R$$

Where A is the normalization constant equal to $(\rho * V)^{-1}$. Since R is the radius of the volume containing a single Mn ion, 2.28nm, the average doping radius $\langle r \rangle = 1.7\text{nm}$

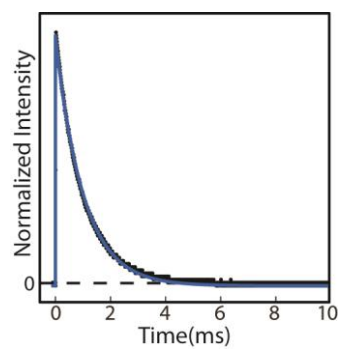


Figure S1: Time-dependent Mn luminescence from Mn-doped CsPbCl₃ nanoparticles.