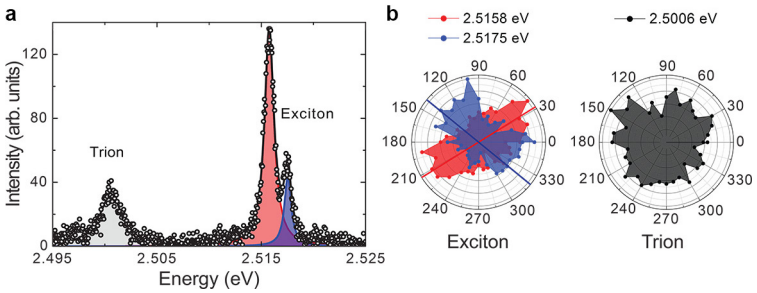

Extended Data Figure 3 | Exciton and trion emission from an individual $CsPbBr_2Cl$ nanocrystal. a, Photoluminescence spectrum of a single $CsPbBr_2Cl$ nanocrystal, showing exciton peaks at 2.5158 eV (red) and 2.5175 eV (blue) and a trion peak (black) that is redshifted by 15–17 meV. The targeted temperature was 5 K (see Fig. 3 caption). **b**, Polarization properties of the exciton (left) and trion (right) emission peaks. The normalized area of a Lorentzian-peak fit for the two exciton peaks (red and blue) and the trion peak (black) are shown as a function of the linear polarizer angle (placed in front of the spectrograph). Both exciton peaks show a dominantly linear polarization, with the main axis indicated by the blue and red lines. The trion emission is unpolarized. See Supplementary Section 4 for further discussion.