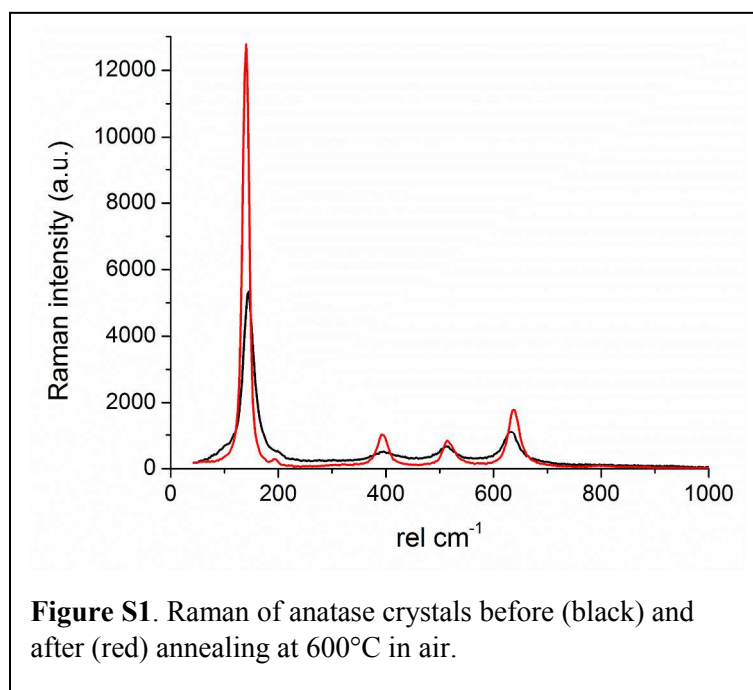


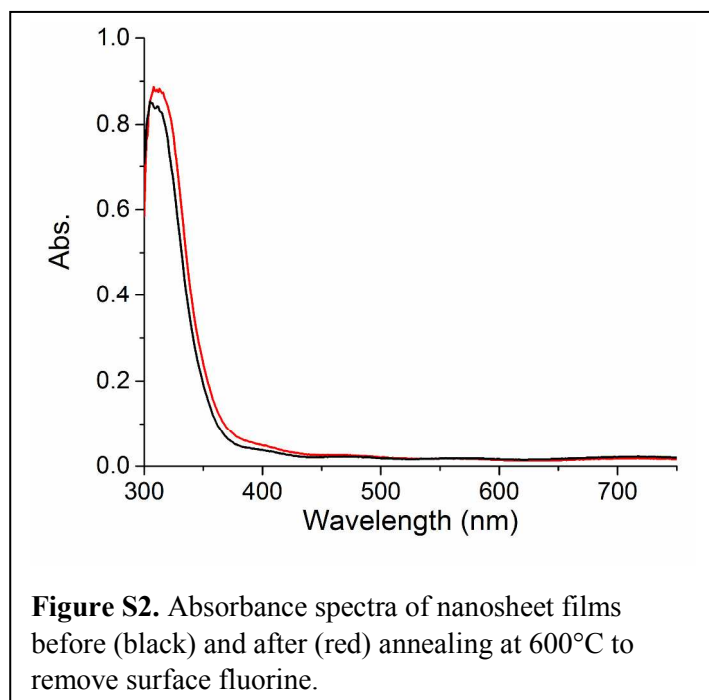
Imaging Luminescent Traps on Single Anatase TiO₂ Crystals: The Influence of Surface Capping
on Photoluminescence and Charge Transport

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SUPPORTING INFORMATION





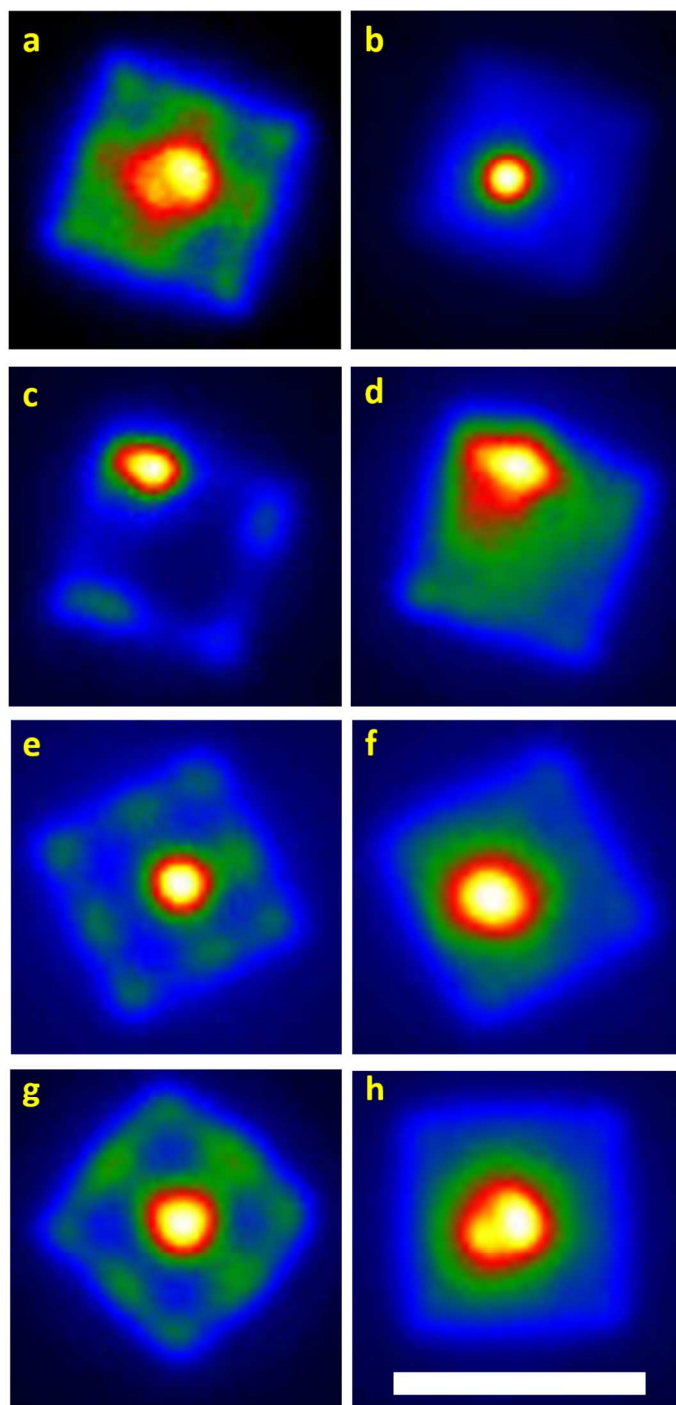
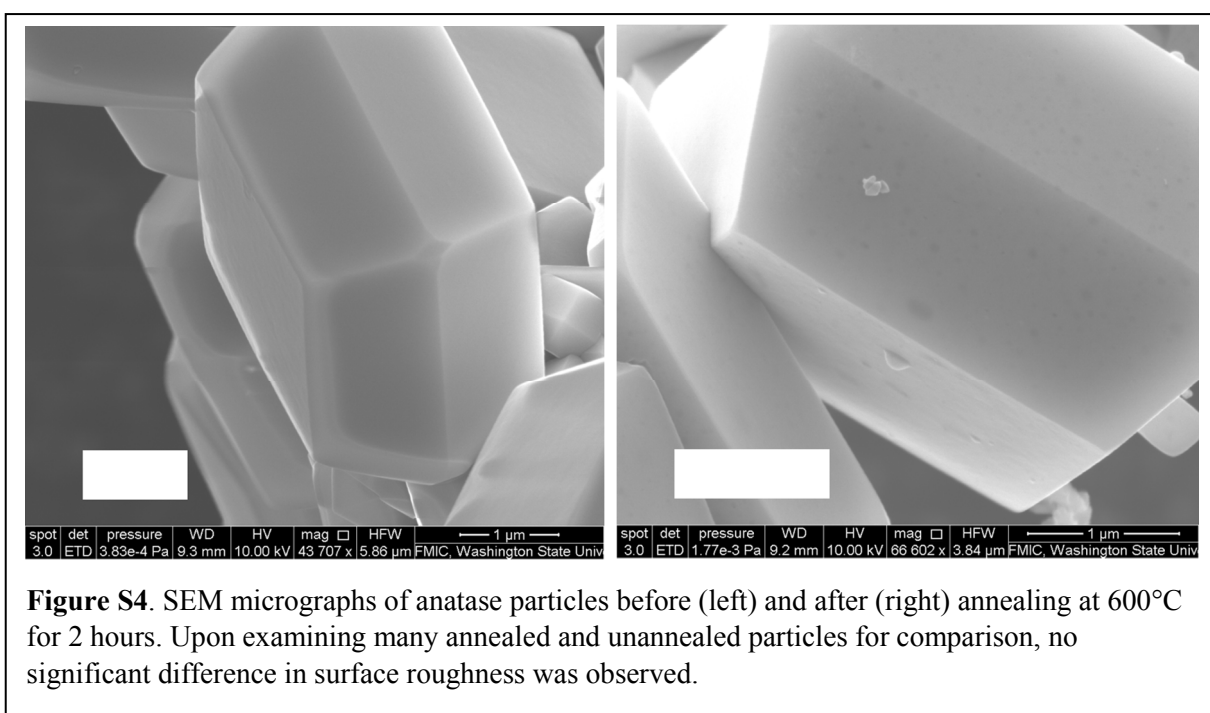


Figure S3. Images of photoluminescence from as-grown (left column) and annealed particles (right column). For pairs (a,b), (c,d), and (e,f), the same particle is shown before and after annealing. Pair (g,h) are different particles. The scale bar indicates 3 microns.



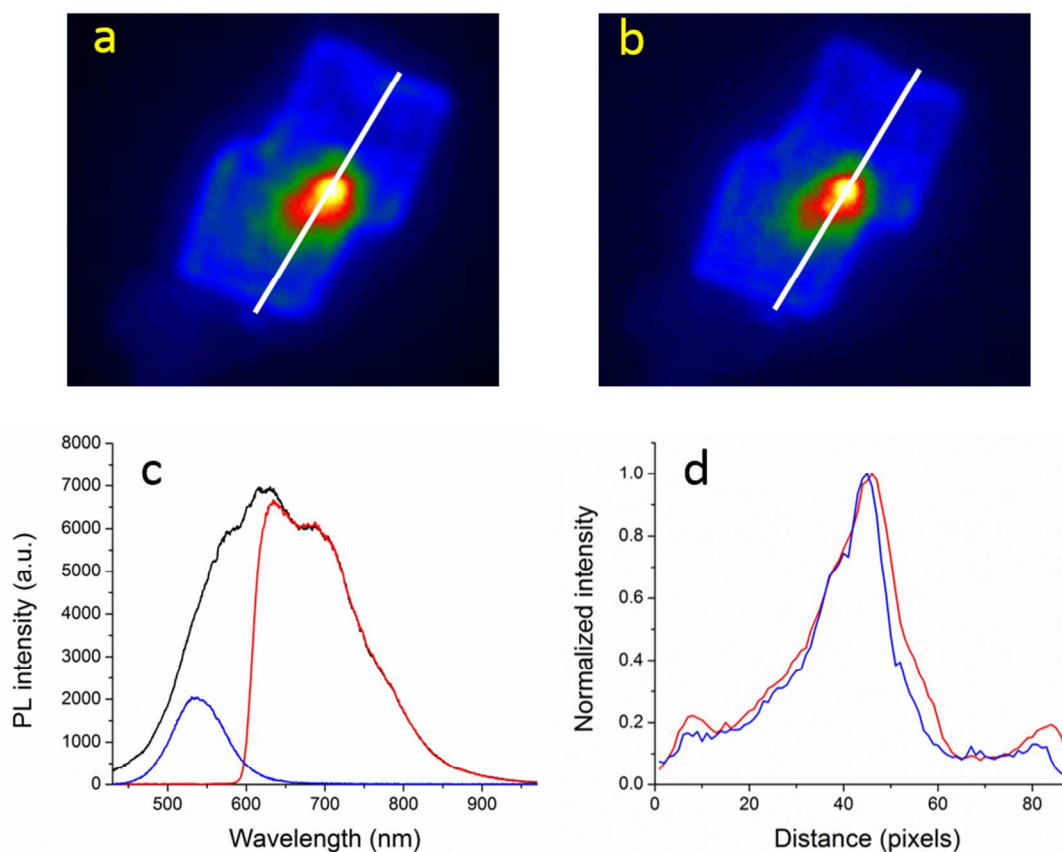


Figure S5. PL images of aggregated unannealed particles imaged through a 610 nm long-pass filter (a) and a green band-pass filter (b). Image (a) corresponds to the red trace spectrum in (c) and image (b) corresponds to the blue trace spectrum in (c). The white lines in (a) and (b) indicate the sample location for plotting PL intensity versus distance in (d). The ratio of the PL at the edge of the particle to that at the peak intensity is approximately 0.21 for red PL and 0.15 for green PL. Note that 19 pixels is approximately 2 microns.

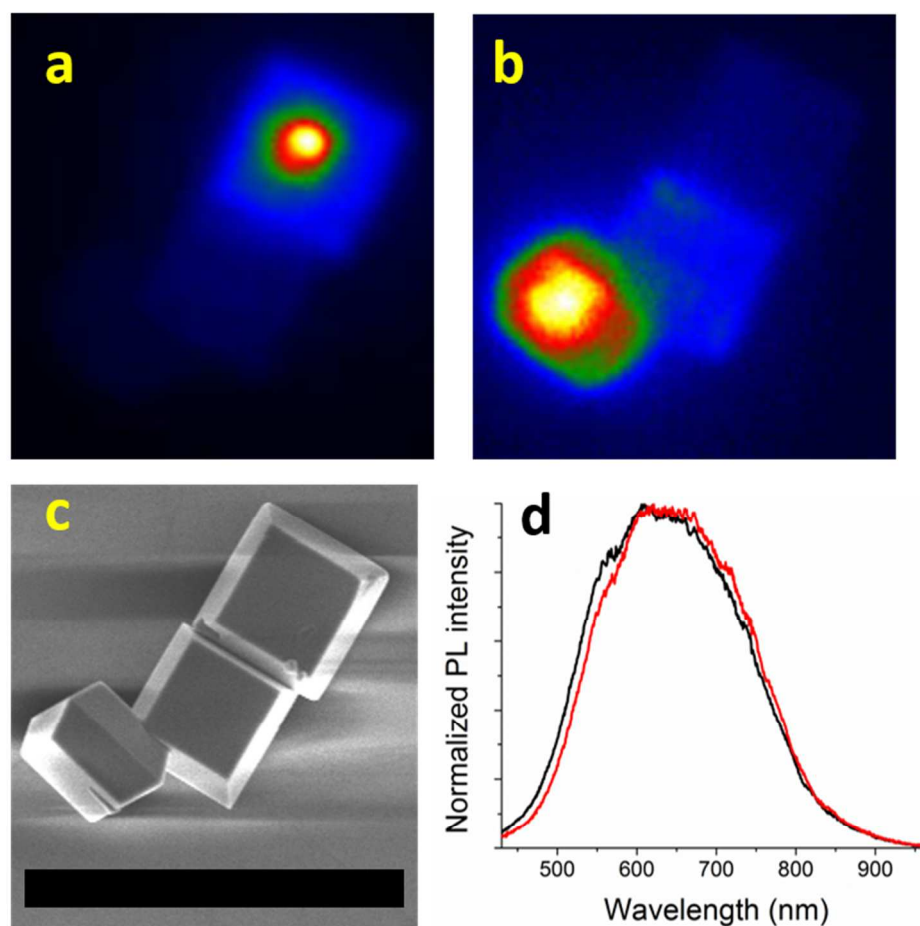


Figure S6. PL images from {001}-illumination (a) and {101}-illumination on particle cluster shown in SEM in (c). The black PL spectrum in (d) corresponds to image (a) and the red spectrum corresponds to (b). PL spectra from {001}-illuminated tend to be slightly blue-shifted compared to {101}-illumination. The scale bar in (c) indicates 10 μm .