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Addition/Correction

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Correction to "Get the Basics Right: Jacobian Conversion of Wavelength and Energy Scales for Quantitative Analysis of Emission Spectra"

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The published version of the text had an error in representing the absorption spectra. The absorption spectra are typically uncorrected due to ratiometry.

Original Text: The effect of this correction is demonstrated in Figure 2 for two limiting situations. In an absorption spectrum (Figure 2a) or a broad-band emitter with multiple peaks such as a quantum dot with surface emission in addition to band edge excitonic PL (Figure 2b), the transformation significantly alters the spectrum. In contrast, a narrow-band emitter such as a laser dye (Figure 2c) or the band edge excitonic PL of a semiconductor nanocrystal is little affected by the transformation.

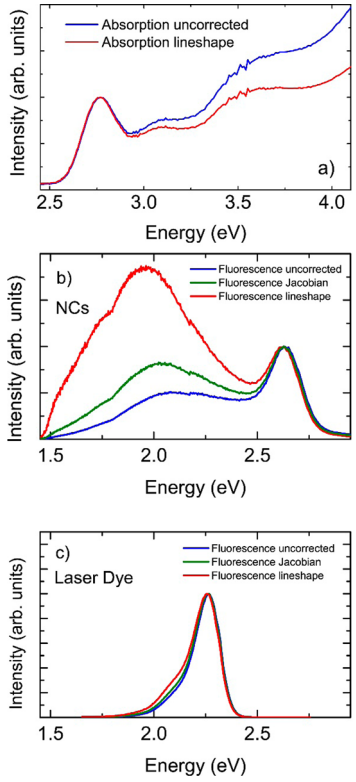

Figure 2. Absorption transition probability and uncorrected absorption (a) and fluorescence (b) spectra for CdSe NCs and simulated fluorescence from a laser dye (c). The use of the Jacobian transformation is particularly important when multiple peaks are present in a spectrum. On the other hand, use of the Jacobian transformation on a broad peak changes the peak slightly without affecting the overall shape.

Correction: The effect of this correction is demonstrated in Figure 2 for two limiting situations. In a broad-band emitter with multiple peaks such as a quantum dot with surface emission in addition to band edge excitonic PL (Figure 2b), the transformation significantly alters the spectrum. In contrast, a narrow-band emitter such as a laser dye (Figure 2c) or the band edge excitonic PL of a semiconductor nanocrystal is little affected by the transformation.

Original Text: The absorption spectra of the NC (Figure 2a) clearly show the importance of correcting the raw data. While it is well-known that the absorption per unit wavelength increases at high energy, this additional analysis reveals that the transition probabilities are actually smaller for these high-energy transitions than those for the band edge exciton. The PL spectra of these NC are shown in Figure 2b.

Correction: The spectra of the NC clearly show the importance of correcting the raw data. The PL spectra of these NC are shown in Figure 2b.

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