



Technical Information: Using Fura-2 to Track Ca²⁺

The fluorophore Fura-2 has an absorption spectrum that varies markedly depending on the concentration of calcium (Ca²⁺) that is present near the fluorophore molecule. By measuring the ratio of intensities on digital images captured with two different excitation filters, the variation of calcium concentration at various locations can be tracked.

Compared to the highest performance competitive filter sets, the BrightLine FURA2-B set provides **4 times the brightness** yet with substantially higher contrast, providing exceptional high-speed imaging performance.

Furthermore, the BrightLine set achieves superb balance of the saturated-to-free signal intensities, thus allowing the most accurate ratio calculations with minimal adjustment of camera settings.

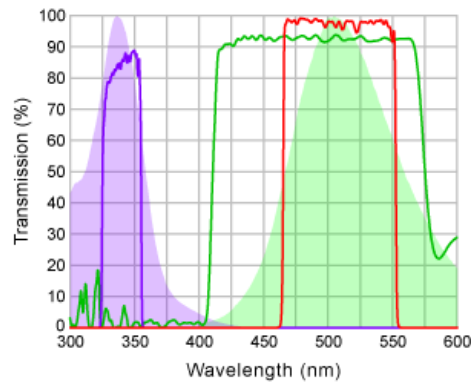
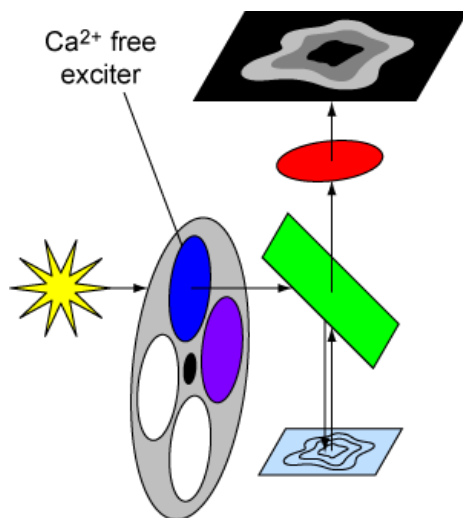


Figure A. High (saturated Ca²⁺) concentration.

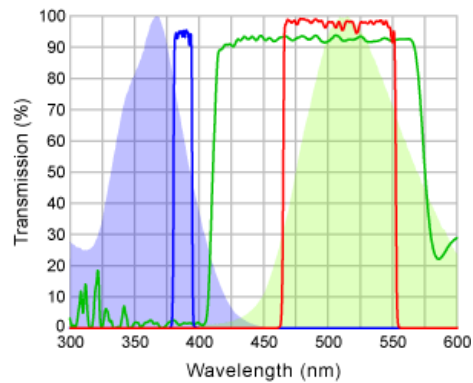


Figure B. Low (Ca²⁺-free) concentration.