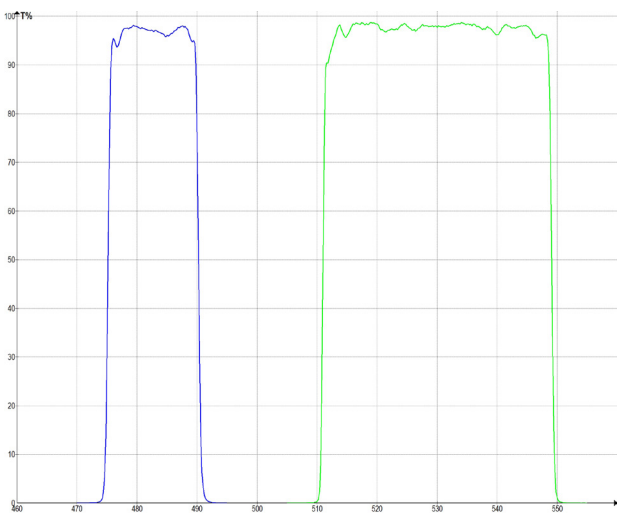
Fluorescence Filters

Fluorescence measurements require a pair of filters carefully matched to the absorption and emission spectra of the fluorescent colour compound to be analysed.

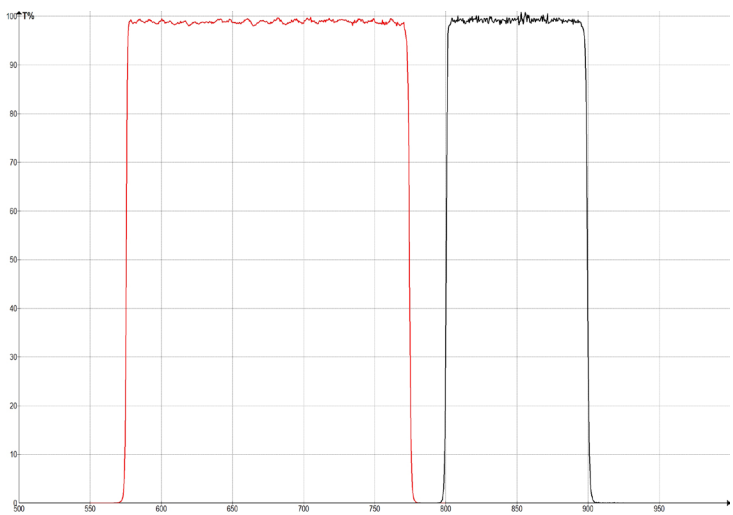
When defining this excitation/emission filter pair, the two main parameters are: First, the overlap of the excitation spectrum and excitation filter, which defines the signal level. Second, the crossing point of the excitation and emission filter curves, together with the stop-band quality, defines the signal-to-noise ratio. A dichroic beam splitter is often added between the filter pair to further increase the signal-to-noise ratio.

Ferroperm Optics offer custom specified fluorescence filter sets in the wavelength range of 280 to 900 nm with bandwidths from 5 to 200 nm.

A comprehensive stock of filters for the most common fluorochromes is available.



Example 1: A fluorescence EX/EM filter pair for fluorescein. The crossing point between the filters is >6 OD.



Example 2: A broadband fluorescence filter pair used for QC in Covid-19 vaccine production.

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