



Why custom filters?

You have carefully designed a new fluorescence instrument. You picked the light source, detector and the fluorophores you are going to use. You have worked out the perfect geometry for all these components. Don't settle for a stock filter!

Your instrument deserves filters that are optimized for your system design.

- Custom transmission ranges
- Custom angles-of-incidence
- Custom out-of-band blocking
- Custom size and shape

Working with Omega

Start early- Filters should be discussed early in the design phase so all factors are considered

Design- We provide spectral models of the filters we are going to make before any decisions (or parts) have been made

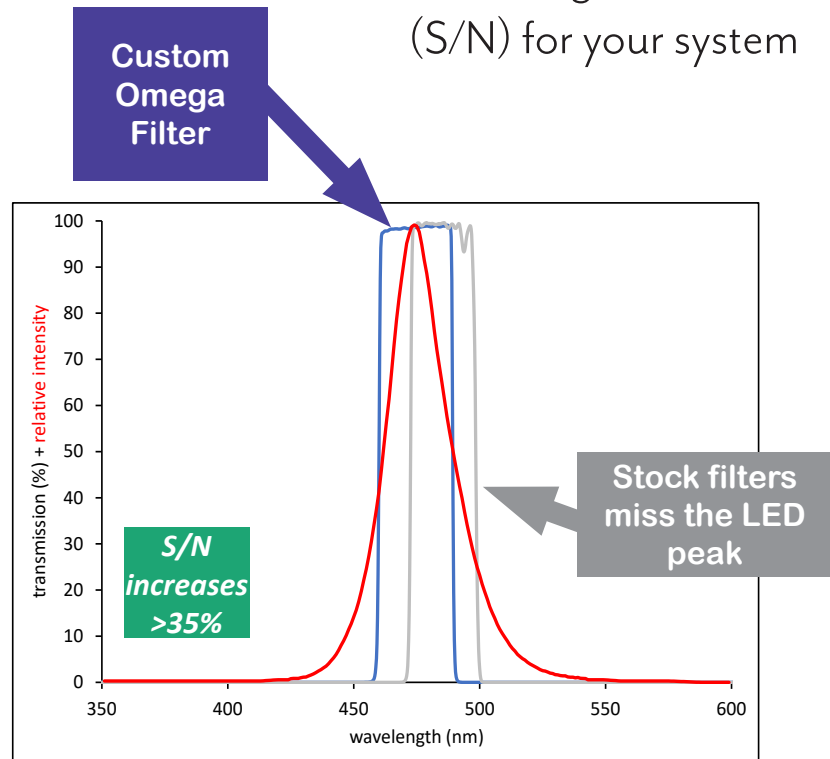
Iterate- Discuss and refine the filter designs

Prototype- Small lots are provided for proof-of-concept and pre-production runs

Iterate- Refine the design if needed

Full-production runs in volume- you are in full-production of your new instrument! Omega can produce thousands of parts per week.

A custom filter maximizes the signal to noise (S/N) for your system



Why Omega Optical?

- A leader in thin-film optics since 1969
- Our engineers have designed over 30,000 filters
- We specialize in customized filters so you don't pay for specifications you don't need
- Volume production capacity > 1,000,000 parts per year
- Offering custom fluorescence sets since the 1980s

Contact us today!
Ask about our fast leadtimes!

ISO 9001:2015 CERTIFIED • ITAR REGISTERED • MADE IN THE USA



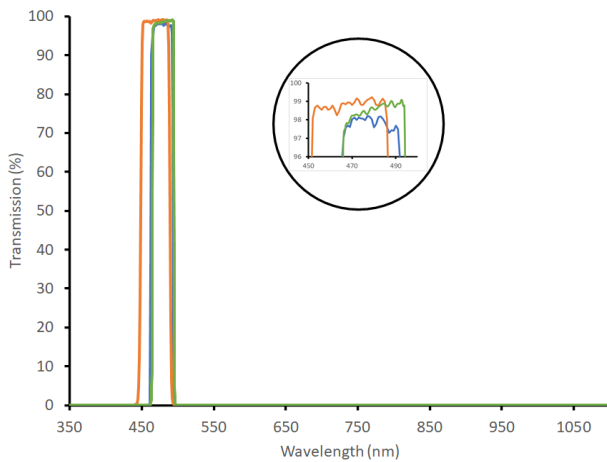
Examples of filter customization

The **Stock** filters below in red were designed for a broadband excitation source and thus require good out-of-band blocking over a large wavelength range.

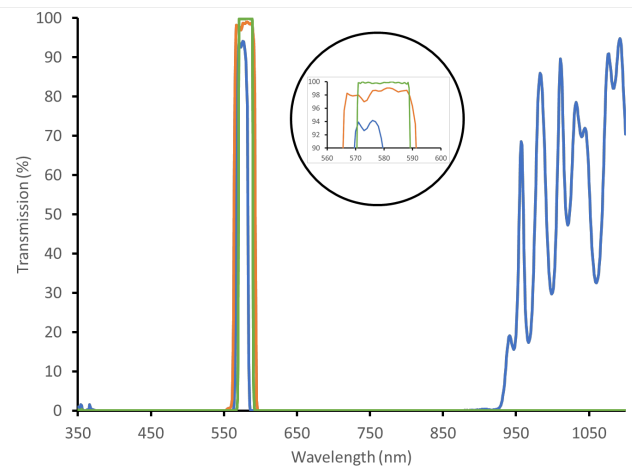
Customer 1 (in blue below) was designing a 2-channel system with LED excitation sources. They did not need blocking over a large wavelength range because the LEDs and dyes used only emit over a discrete wavelength range.

Customer 2 (in green below) was designing a 5-channel system with 5 discrete LED sources, but also wanted the option to use a broadband light source with the same filters. This required blocking over a wide wavelength range and very sharp and narrow bands to reduce spectral overlap between channels.

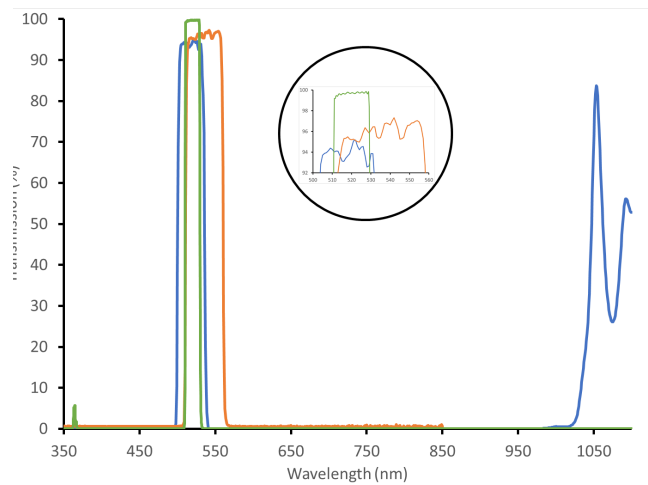
FAM fluorophore



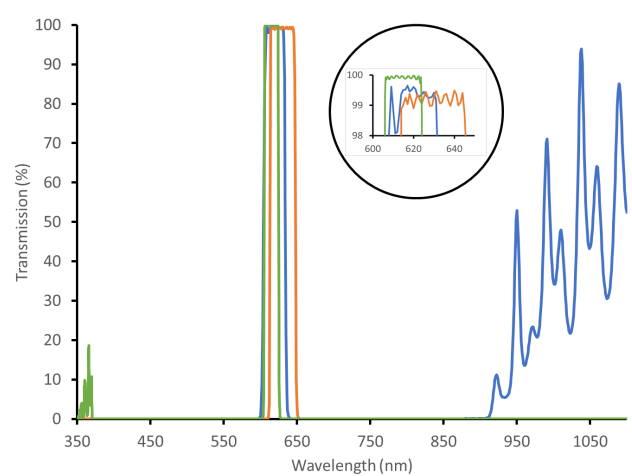
ROX fluorophore



EXCITATION



EMISSION



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