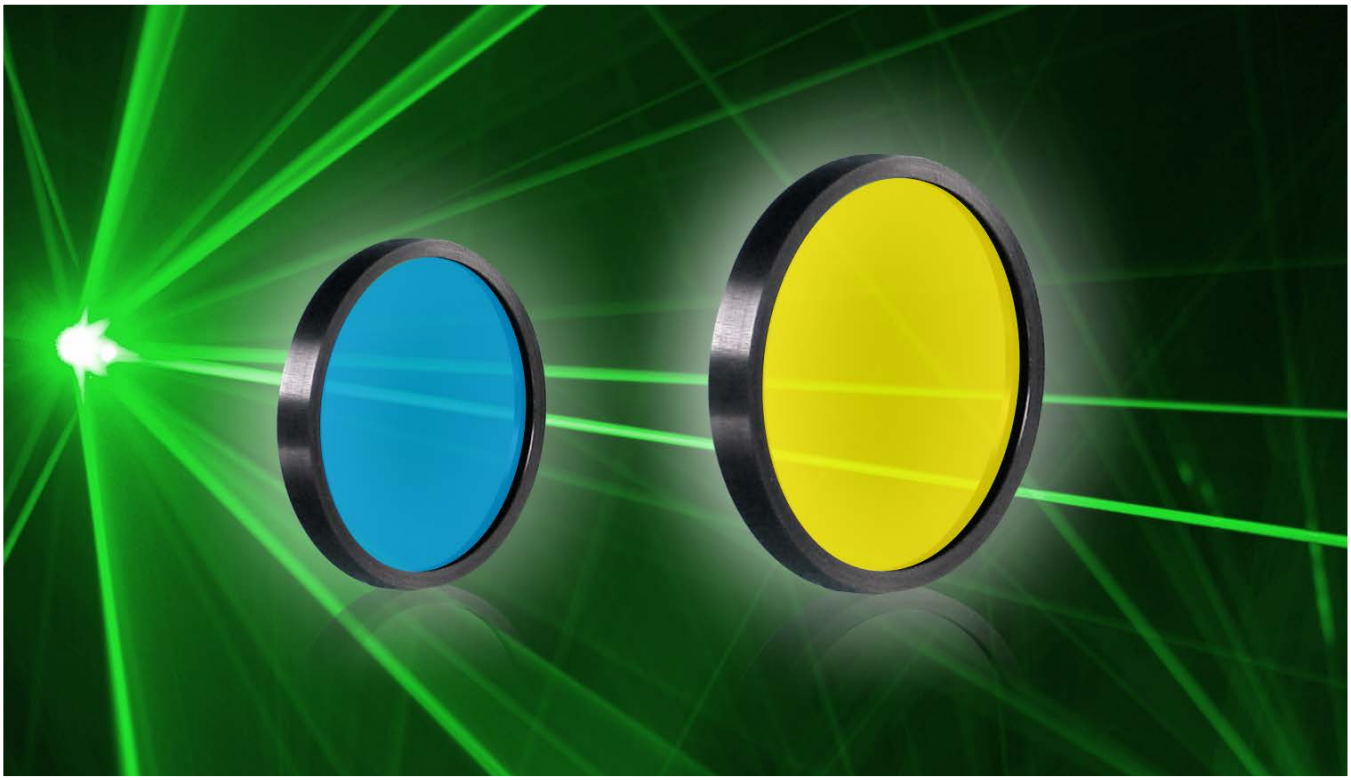
AHF ANALYSENTECHNIK

ULTRA-NARROWBAND FILTERS

For Laser Applications – Pushing the Envelope of Performance



LARGE FORMAT AND IMPROVED TEMPERATURE STABILITY

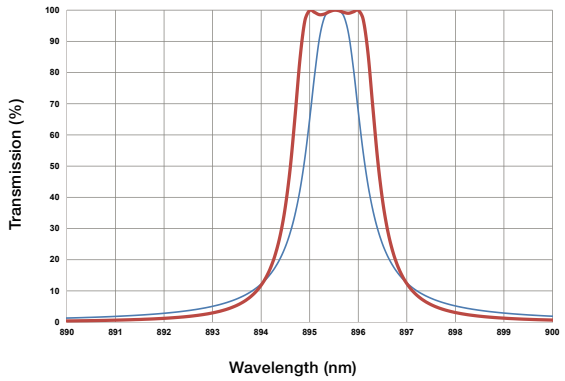
These hard-coated filters with very narrow bandwidth are used in optical systems, like LIDAR (light detection and ranging), Doppler shift detection of plasma velocity, laser clean-up, chemical and gas sensing, as well as for cutting-edge astronomy and instrumentation applications. They are highly resistant to laser damage, which ensures a high level of performance for a long period of time.

APPLICATIONS

:: Laser Clean-up
:: Quantum optics
:: Spectroscopy
:: Astronomy
:: LIDAR
:: Plasma physics

OUR PARTNER

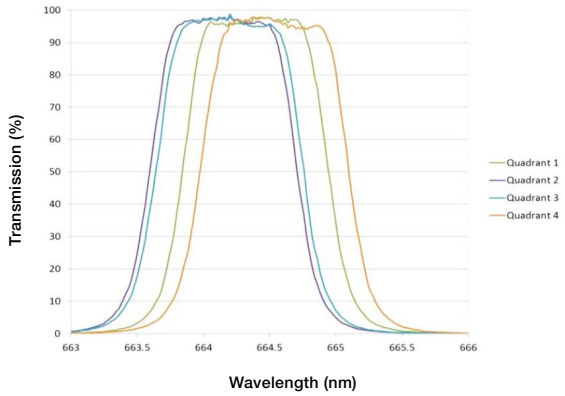
Alluxa



FROM DESIGN TO SPECIFIC ULTRA-NARROWBAND FILTER (UNBF)

:: Fully customizable
:: Example of 895.5/1 nm and 895.5/1.5 UNBF
:: Transmission > 92 %
:: Customized out of bandpass blocking OD4 / OD6 from 700 – 1100 nm

◄ Example on the left shows two different designs, blue curve was realized



MODERN PLASMA COATINGS

:: Highly reproducible square top filters with low ripple
:: Low temperature dependence, e.g. for 532 nm 2.5 pm / K
:: Exceptional transmission
:: Large formats (up to 75 mm) with minimum variation (center wavelength 0,06 %, FWHM 0,02 %)

CWL (nm)	FWHM (nm)	FWHM (%)	OD
317.5	*1.5*	*0.472*	*6*
354.717	*0.15*	*0.042*	*5*
410.3	*1.1*	*0.268*	*5*
532.079	*0.17*	*0.032*	*5*
656.1	*1*	*0.152*	*4*
828.007	*0.5*	*0.060*	*5*
1030.2	*0.6*	*0.058*	*8*
1064.164	*0.4*	*0.038*	*5*

EXAMPLES OF AVAILABLE UNBF

:: Ultra-narrowband designs from UV to IR with minimum 0.15 nm FWHM
:: Blocking up to OD 8 over a broad spectral range possible
:: Filter bandwidth cannot be measured with commercial available instruments

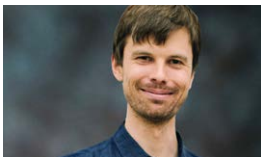
OUR FILTER TEAM IS HAPPY TO GIVE SUPPORT!

Dr Michael Sommerauer
ms@ahf.de

Dr Ingrid Feuerbacher
if@ahf.de

Dr Andreas Braunwarth
ab@ahf.de

Dr Alexander Krause
ak@ahf.de



Frederic Feuerbacher
ff@ahf.de