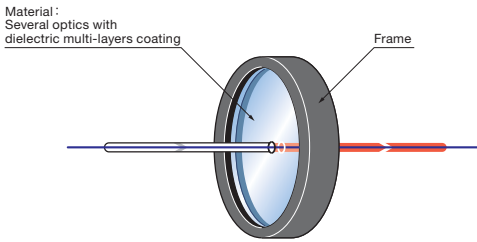


YIF is a filter that can extract a selected light from the wavelength range. Its primary feature is the ability to pick out a high transmittance wavelength at the same time cutting off a wavelength.

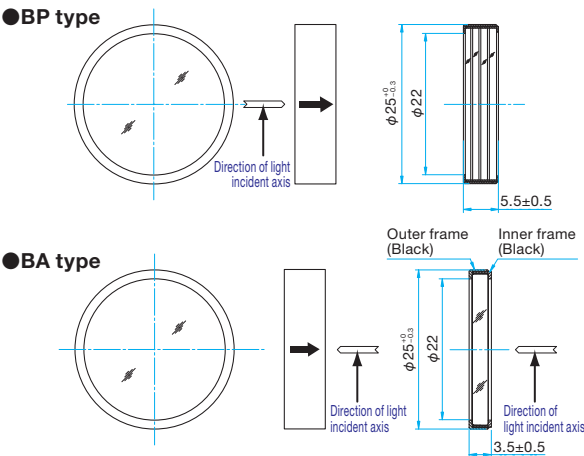
- The filters are made by Ion Beam assisted dielectric coating process which can assure an extremely high environment resistance and high stability.
- Using high absorption glass material and heat absorption optical coating, it assures a low deterioration with any types of light-source.
- The filters were designed as the BP type light blocking characteristics of high OD7 at the long wavelength side than the pass band and the BA type light blocking characteristics of high OD7 at the short wavelength side of than the transmission bandwidth.
- The filters can be used to cut the non-irradiated light wavelength excitation in fluorescence observation and cut the non fluorescence wavelength excitation light in sample observation.
- In addition to the BP type filter and the BA type filter, there are broadband type and narrowband type that can be chosen according to your application.



Schematic



Outline Drawing (in mm)



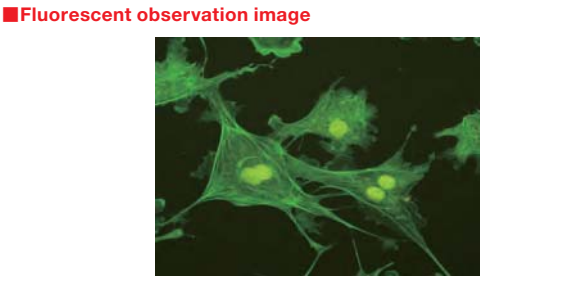
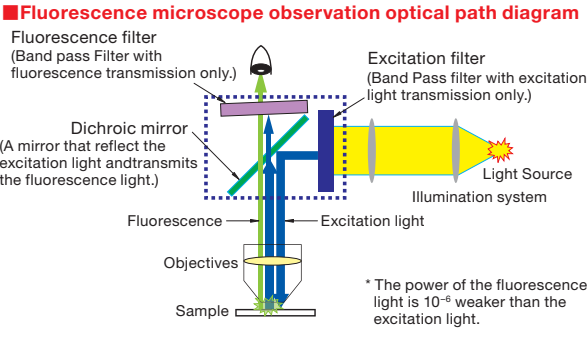
Specifications	
Material	B270® (SuperWhite Glass) or Synthetic fused silica
Incident angle	0°
Surface Quality (Scratch-Dig)	40-20

- Guide**
- ▶ B270® is registered trademark of Schott AG.
 - ▶ For a suitable filter holder, please contact our Sales Division.
 - ▶ Different size, wavelength and deviation ratio not mentioned on-line or in our catalog are available as custom products upon request

- Attention**
- ▶ The filter transmittance wavelength characteristics are on the surface and the backside of the filter. It is a multi-filter with different coating characteristics combined together and mounted into a optics frame.
 - ▶ If the light incident angle is other than 0 degrees, the transmittance characteristics may change. In the normal situation, when the incident angle changes, the wavelength may shift to the long wavelength side.
 - ▶ An arrow indicating the light incident direction of the BP filter and the BA filter is different.
 - ▶ The filters are made for use in high temperature environment but for usage of high power exposure UV lamp, the stability and the efficiency of the filters are not guaranteed.

Sample of use of the Bio-imaging

Irradiation with excitation light onto a bound biological fluorescent reagent. A weak fluorescence light appears and the reaction of the biological specimen is visible.



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Interference filters | YIF

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BP broadband type							
Part Number	Transmission spectral	Short wavelength cutoff range		High transmittance range		Long wavelength cutoff range	
		wavelength [nm]	transmittance [%]	wavelength [nm]	transmittance [%]	wavelength [nm]	optical density
YIF-BP340-390S		300	<0.01	360 – 380	>75 > Average 80	414 – 800	>OD7
YIF-BP400-440S		300 – 383	<0.01	403 – 436	>80 > Average 85	460 – 800 800 – 960	>OD7 >OD6
YIF-BP460-495S		300 – 442	<0.01	464 – 489	>80 > Average 85	514 – 800 800 – 960	>OD7 >OD6
YIF-BP540-585S		300 – 522	<0.01	545 – 579	>80 > Average 85	600 – 800 800 – 960	>OD7 >OD6

BP narrowband type							
Part Number	Transmission spectral	Short wavelength cutoff range		High transmittance range		Long wavelength cutoff range	
		wavelength [nm]	transmittance [%]	wavelength [nm]	transmittance [%]	wavelength [nm]	optical density
YIF-BP360-370S		300 – 340	<0.01	365	>78	414 – 800	>OD7
YIF-BP400-410S		300 – 383	<0.01	403 – 407	>80 > Average 85	435 – 800 800 – 960	>OD7 >OD6
YIF-BP460-480S		300 – 448	<0.01	465 – 476	>80 > Average 85	493 – 800 800 – 960	>OD7 >OD6
YIF-BP470-495S		300 – 453	<0.01	478 – 489	>80 > Average 85	514 – 800 800 – 960	>OD7 >OD6
YIF-BP490-500S		300 – 475	<0.01	492 – 498	>80 > Average 85	516 – 800 800 – 960	>OD7 >OD6
YIF-BP530-550S		300 – 514	<0.01	538 – 547	>80 > Average 85	582 – 800 800 – 960	>OD7 >OD6
YIF-BP540-550S		300 – 522	<0.01	546	>80	582 – 800 800 – 960	>OD7 >OD6
YIF-BP565-585S		300 – 545	<0.01	572 – 579	>80 > Average 85	600 – 800 800 – 960	>OD7 >OD6

BA broadband type							
Part Number	Transmission spectral	Short wavelength cutoff range		High transmittance range		Long wavelength cutoff range	
		wavelength [nm]	optical density	wavelength [nm]	transmittance [%]	wavelength [nm]	transmittance [%]
YIF-BA420IFS		340 – 380 380 – 390	>OD7 >OD6	430 – 520	>90 > Average 95	–	–
YIF-BA460IFS		400 – 440	>OD7	470 – 650	>90 > Average 95	–	–
YIF-BA510IFS		420 – 488	>OD7	517 – 700	>90 > Average 95	–	–
YIF-BA575IFS		546 – 550	>OD7	580 – 700	>90 > Average 95	–	–
YIF-BA600IFS		535 – 582	>OD7	607 – 700	>90 > Average 95	–	–

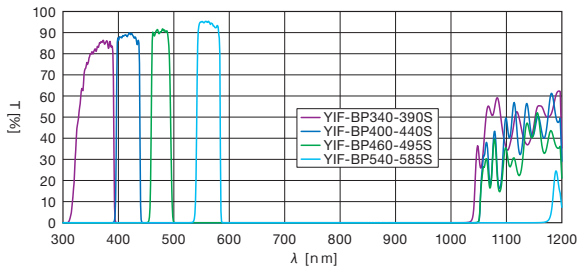
BA narrowband type							
Part Number	Transmission spectral	Short wavelength cutoff range		High transmittance range		Long wavelength cutoff range	
		wavelength [nm]	optical density	wavelength [nm]	transmittance [%]	wavelength [nm]	transmittance [%]
YIF-BA420-460S		340 – 380 380 – 390	>OD7 >OD6	430 – 460	>88 > Average 93	495 – 620	<0.1
YIF-BA460-510S		400 – 442	>OD7	470 – 503	>90 > Average 95	529 – 650	<0.1
YIF-BA495-540S		410 – 480	>OD7	499 – 535	>90 > Average 95	565 – 680	<0.1
YIF-BA510-550S		420 – 488	>OD7	517 – 542	>90 > Average 95	569 – 705	<0.1
YIF-BA515-560S		420 – 502	>OD7	522 – 552	>90 > Average 95	577 – 700	<0.1
YIF-BA575-625S		546 – 550	>OD7	580 – 618	>90 > Average 95	640 – 780	<0.1
YIF-BA600-690S		535 – 582	>OD7	607 – 680	>90 > Average 95	703 – 880	<0.1

Typical Transmittance Data

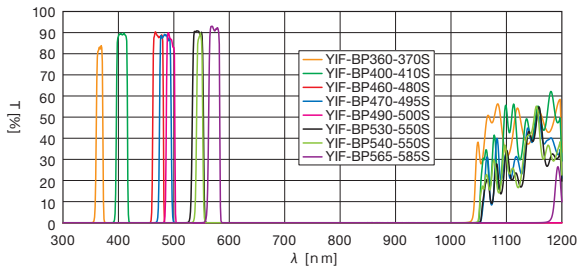
T: Transmission

■BP type

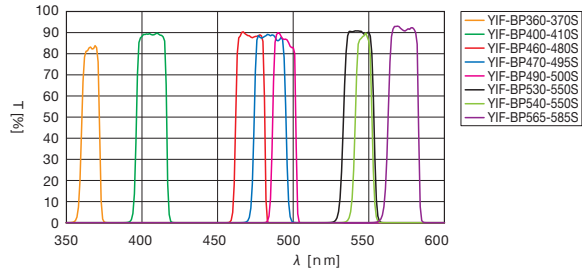
Broadband type (300 – 1200nm)



Narrowband type (300 – 1200nm)

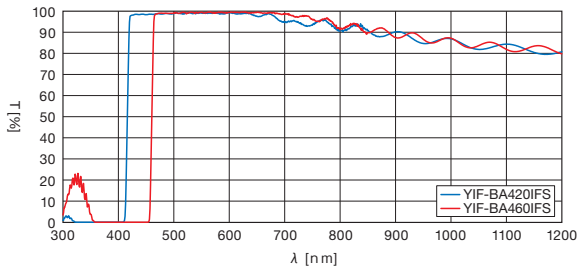


Enlargement of Narrowband type (350 – 600nm)

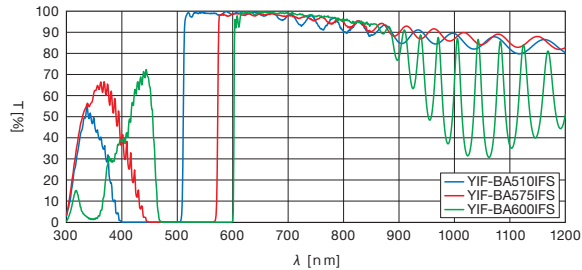


■BA type

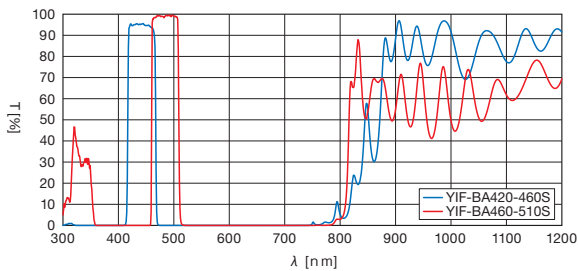
Broadband type 1 (300 – 1200nm)



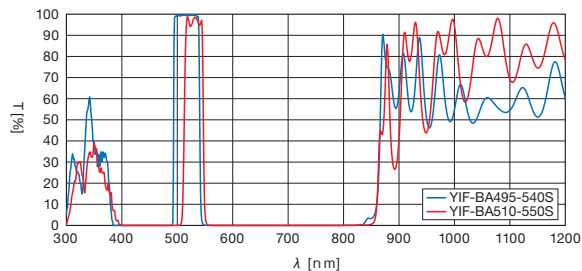
Broadband type 2 (300 – 1200nm)



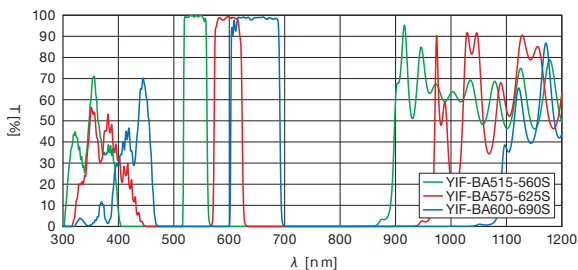
Narrowband type 1 (300 – 1200nm)



Narrowband type 2 (300 – 1200nm)



Narrowband type 3 (300 – 1200nm)



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