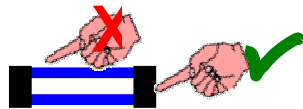


## Cleaning and Handling of Interference Filters in Microscopy

### ATTENTION! Coated surfaces



Handle coated pieces by the edges only. Avoid handling of exposed coatings with bare fingers  
All optical components are cleaned and checked before delivery.

**We do not grant any replacements for damages caused by wrong handling or cleaning of the filters and beamsplitters.**

### Cleaning

#### Exciters and emitters

Clean gently only if necessary. Loose particales should be removed with a bulb puffer or filtered pressurized air cleaner.

If necessary, gently wipe surfaces using alcohol (ethanol or methanol) and a lint-free towel. Use new surface of towel with each wipe.

Avoid touching or wiping A/R coated surfaces!

#### Beamsplitters

Loose particales should be removed with a bulb puffer or filtered pressurized air cleaner.

Avoid touching or wiping A/R coated surfaces!

**If filters or beamsplitters need a special cleaning, which is not described, please send them back to us (see address below).**

### Heat protection

Exciters are exposed to the light source. Protect exciters in additional sliders or filterwheels close to a light source with appropriate heat protection filters.

Make sure, that a heat protection is mounted in the filterwheels or the lamp housing of the light source.

**Check your filters and beamsplitters in your microscope from time to time.**

## Mounting of interference filters into holding devices

To obtain the most optimal performance of the filters, they should be orientated according the following description:

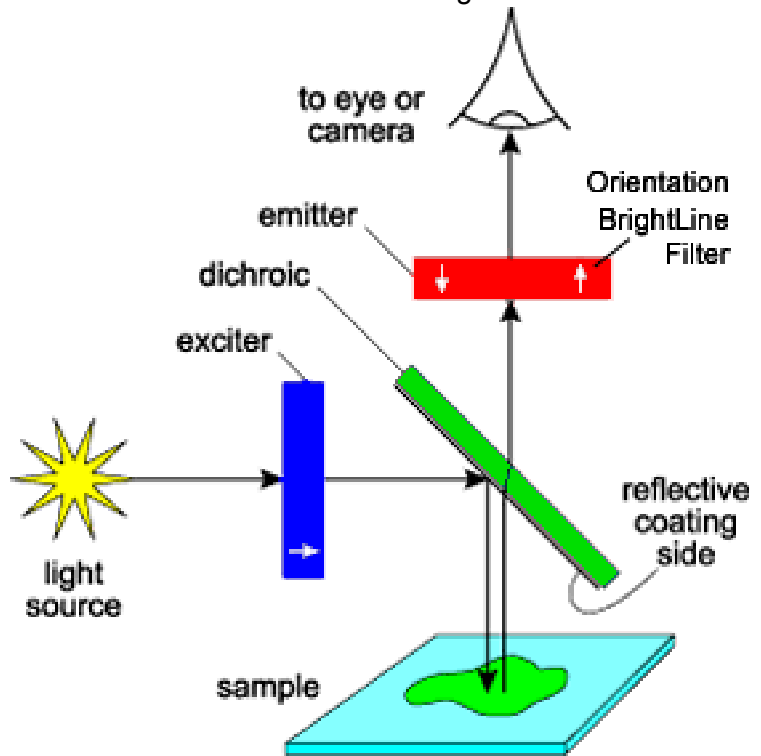
**Exciters** and **emitters** are labelled with arrows on the side of the filtering.

**Exciters** should be positioned with the arrow pointing to the beamsplitter (away from the light source).

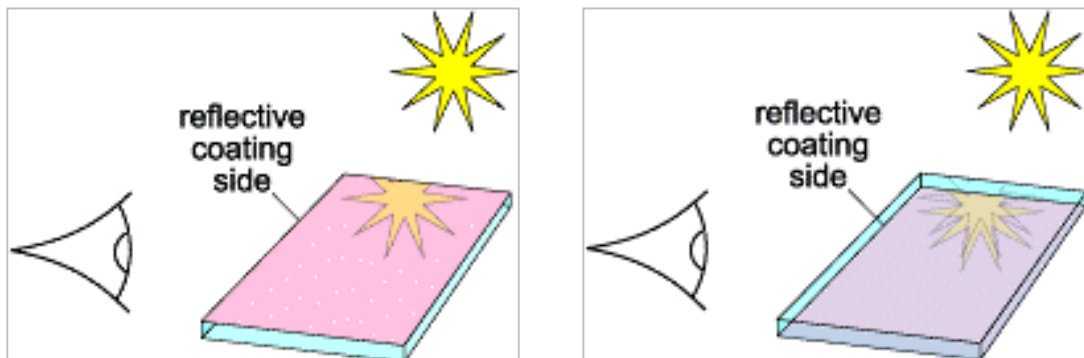
**Emitters** should be positioned with the arrow towards the beamsplitter (away from the eye or camera).

**Exception: BrightLine filters** should be placed with the arrow in direction of the light path (towards the eye or detector).

**Beamsplitters** (dichroics, polychroics, mirrors) should be mounted with the coated side towards the light source. A dot, arrow or bevel edge on the beamsplitters indicates the coated side.



If no labelling is on the beamsplitters, you can determine the coated (reflecting) side as following:



Illuminate the beamsplitter with any light source.

When viewing the beamsplitter with the reflecting side up, you can see a predominantly single reflection of the light source. The thickness of the beamsplitter at the far edge is not visible.

When viewing the beamsplitter with the reflecting side down, you can see a double-reflection of your light source. The thickness of the beamsplitter at the far edge is visible.