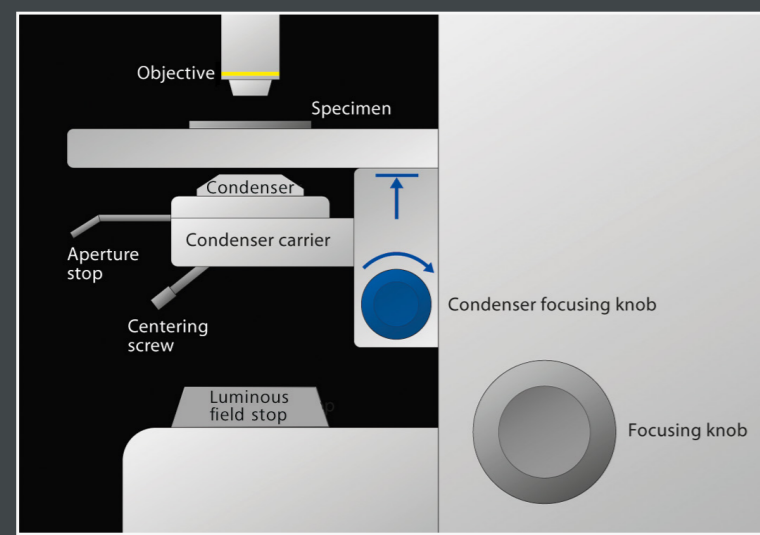


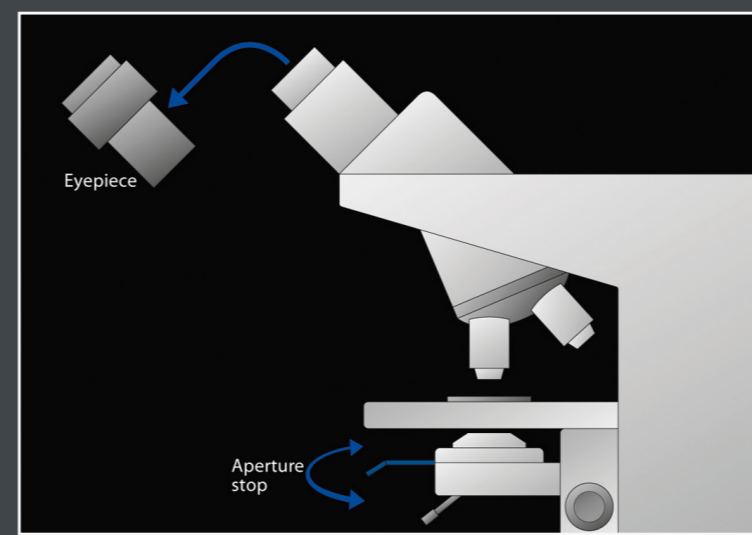
# Köhler Illumination with the Upright Microscope

Brightfield ● and Phase Contrast ○



1. ● ○

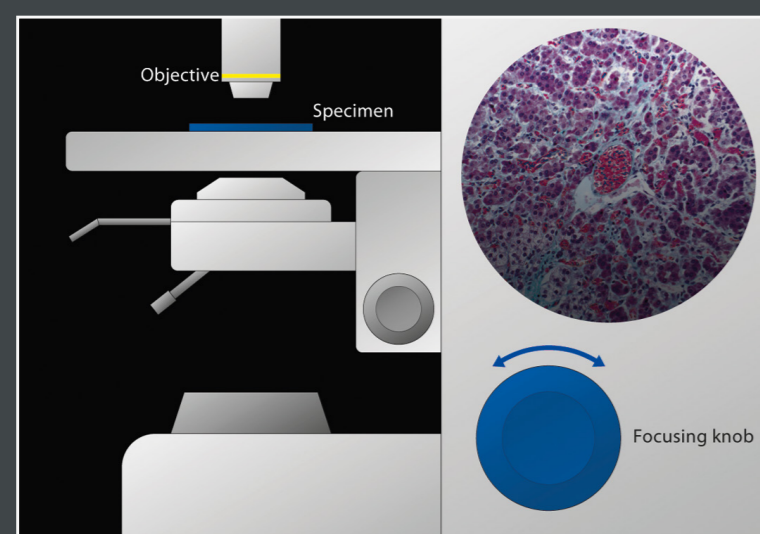
Set condenser to brightfield position. Move condenser to its top position using the condenser focusing knob. Open both the luminous field stop and aperture stop fully.



7a. ●

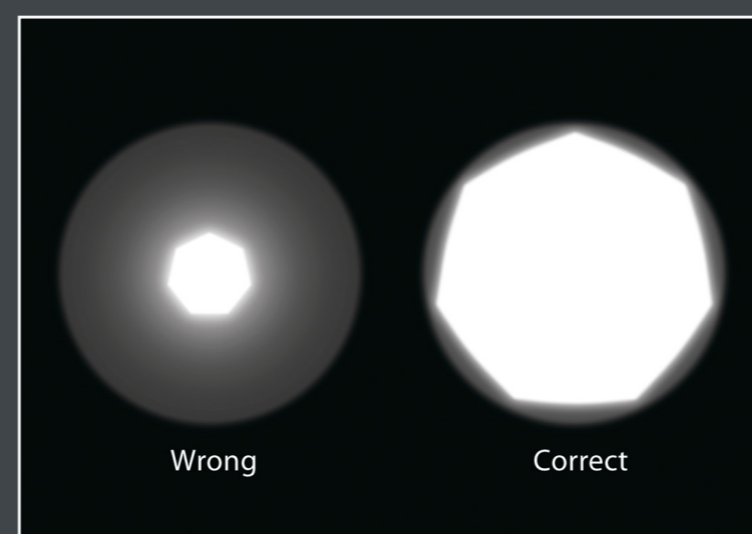
To adjust the aperture stop diameter remove an eyepiece and look into the tube (Auxiliary microscope recommended).

Close the aperture stop...



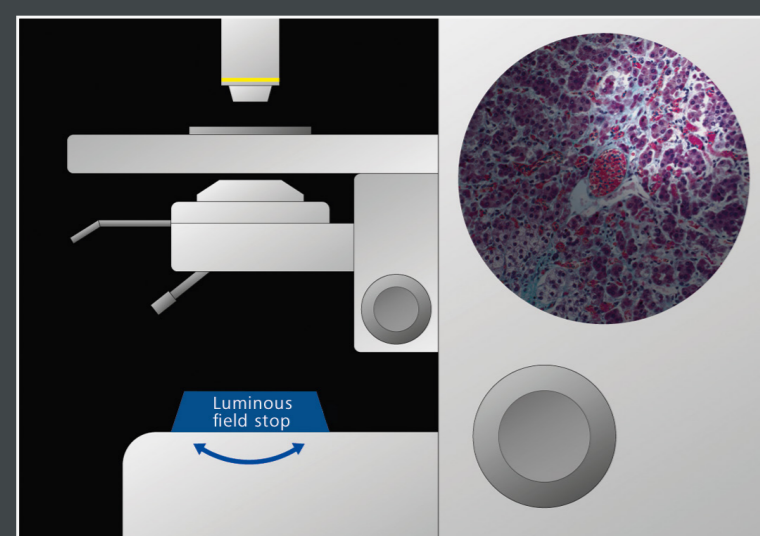
2. ● ○

Focus specimen using the focusing knob. Keep specimen in focus during the whole alignment procedure.



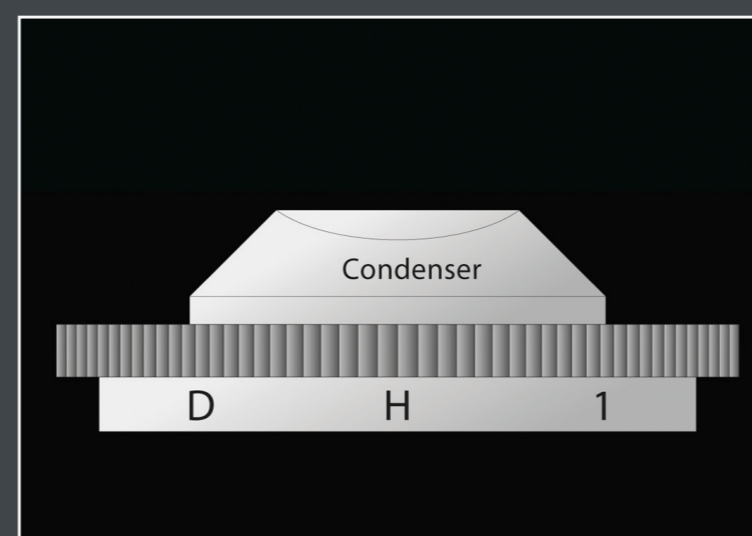
7b. ●

...until the visible objective opening is illuminated at least by  $\frac{2}{3}$  of its diameter. Insert eyepiece. With each objective change realign luminous field and aperture stop. Now, the microscope is optimally aligned for brightfield examinations.



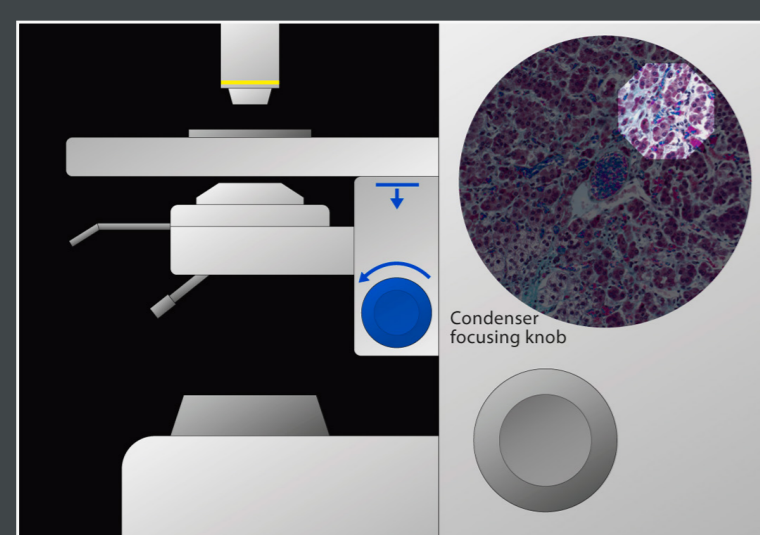
3. ● ○

Close luminous field stop until it appears in the field of view.



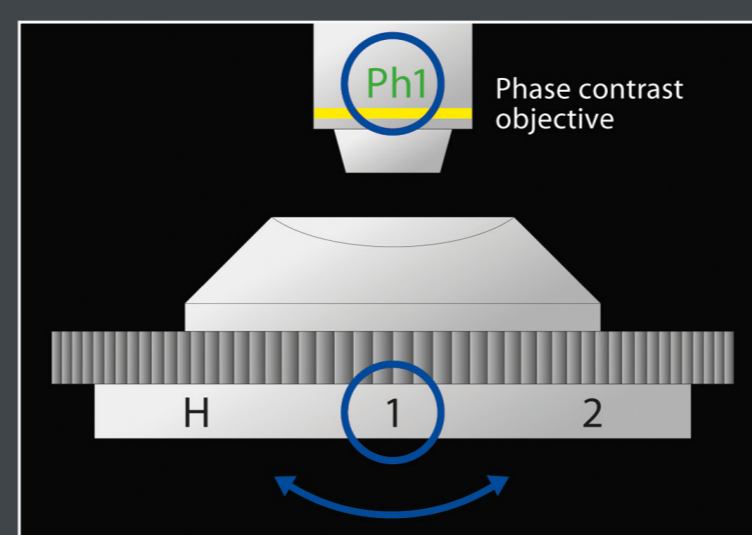
8. ○

Insert specimen and adjust Köhler illumination according to steps 1 – 6.



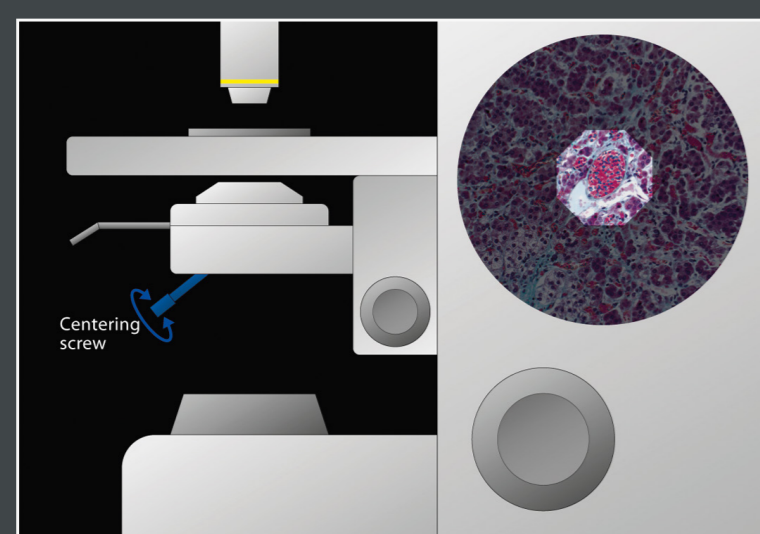
4. ● ○

Focus the luminous field stop image by lowering the condenser with the condenser focusing knob. Now, the edges of the luminous field stop appear with maximum sharpness.



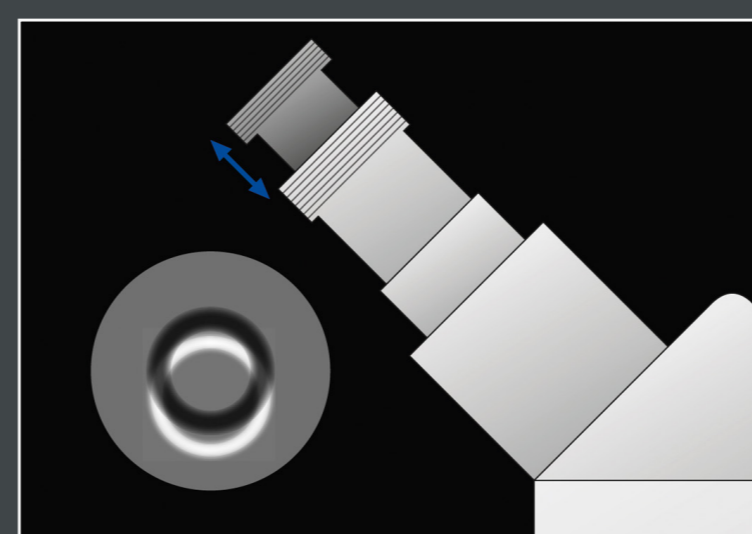
9. ○

Make sure the condenser phase stop matches the chosen phase contrast objective.



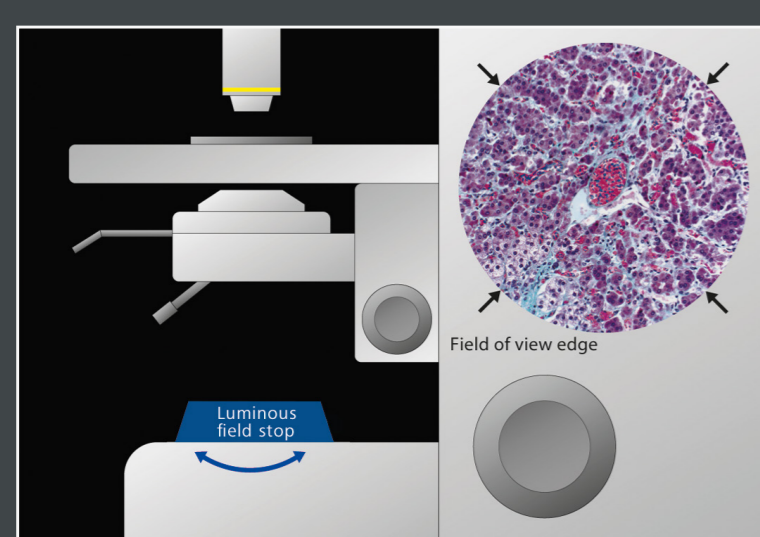
5. ● ○

Center the luminous field stop image with the condenser centering screws.



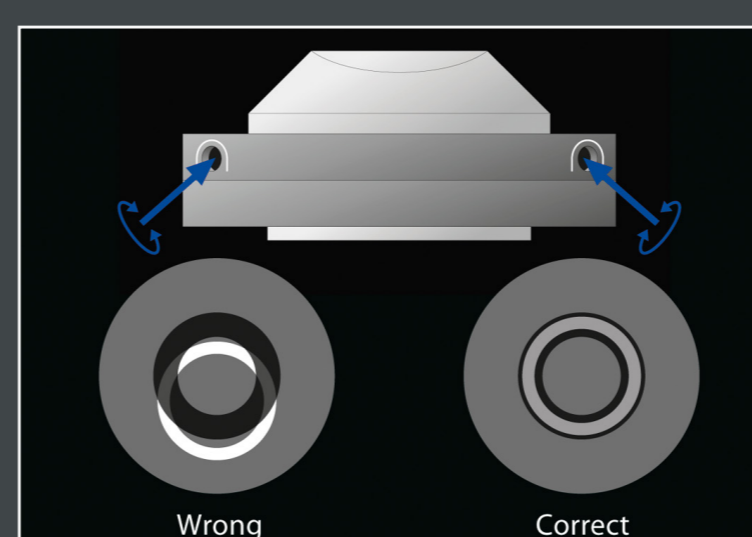
10. ○

Replace one eyepiece with the auxiliary microscope (alternative diopter) and focus on the dark objective phase ring and the bright condenser phase stop images.



6. ● ○

Open the luminous field stop until its image just disappears behind the field of view edge. For alignment of phase contrast please go to step 8.



11. ○

Insert centering keys into the phase alignment openings of the condenser. Rotate the keys until the images of phase ring and phase stop match as shown. Replace the auxiliary microscope with the eyepiece. With each objective change, realign luminous field stop. If necessary, change to the condenser phase stop indicated on the phase contrast objective. Now, the microscope is optimally aligned for phase contrast examinations.



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Seeing beyond