

Photomicrography with Coolpix 4500 digital camera

1. Turn the camera ON to Manual mode (M). If the remote release cable is attached, push the release button on the remote to activate the camera.
2. Make sure these parameters are set:
 - **Exposure mode: Aperture (A)**
 - **Aperture is fully open** (the smallest number; adjust by rotating the wheel)
 - **Focus: Infinity** (set by pushing Focus Mode button)
 - **Image Size: FULL** (no indication on the screen)
 - **Quality FINE** (set by pushing Image Quality/Size button)
3. Turn the TV on. You should see live video feed from the camera.
4. On the camera, zoom out until you see the black vignetting in the edges of your image. Zoom then in until the vignetting disappears or until you get desired magnification.
5. If you need to put a scale bar in the image later, you should now take a picture of an object with known size (a ruler, stage micrometer, etc). Do this every time you change the zoom on the camera or on the microscope.
6. If the colors do not look as desired, adjust White Balance setting. Place a neutrally white card in the field of view, or if on the standard microscope, move the microscope slide to show a clear area without specimens. Push "Menu" button, select "White Balance" - "Preset" - "Measure". It will adjust the colors so that what was in the field of view is regarded as neutral white. When done, exit the menu.
7. Use the live image on the TV screen for focusing the microscope.
8. Push the release button fully to take picture.
9. If you have multiple different specimens, it is a good idea to take a blank picture in between.
10. Sometimes, the auto exposure needs correction. Set exposure compensation by holding the +/- button on top of the camera and rotating the wheel. The amount of compensation is displayed on the monitor. Usually compensating +1.0 or -1.0 is sufficient. (+1 means that the exposure will be overexposed by 1 f-stop)
11. When finished, turn the camera off.
12. **Remove the memory card, insert the card into a card reader and copy your images to the hard disk or flash drive.**
13. Put the card back in the camera. Beware of the orientation.
14. Turn the microscope OFF and replace the dust cover.

