

### Making Routine Photomicrographs and More

Congratulations! We are sure by now you have learned how to establish Köhler illumination and you are now halfway to becoming an “expert” photomicrographer. This assignment will give you an opportunity to make photographs using Köhler illumination and optimizing the instrument’s diaphragms influencing image resolution and contrast.

This assignment will provide an opportunity to learn how to control and achieve:

1. Par-focalize the Instrument and image
2. Proper set up of Köhler for all objectives
3. Achieve proper color balance across several photomicrographs using different magnifications from the same sample
4. Demonstrate the proper calculation of image magnifications
5. Create images with sharpness and exhibit no vibration

ASSIGNMENT: Produce a minimum example of each following:

1. a photograph using the 4x objective
2. a stage micrometer photographed at that magnification
3. a photograph using the 10x objective
4. a stage micrometer at that magnification
5. a photograph using the 40x objective
6. a stage micrometer at that magnification
7. a series of four photomicrographs using a 10x objective and each using a different aperture diaphragms setting ranging from .25 down to completely closed.
8. Convert the best RGB file into a Grayscale file

### SUBMISSION:

The assignment must be turned in on the [cias.rit.edu](http://cias.rit.edu) server.

Please submit files as TIF files

Section one Monday February 15<sup>th</sup> by noon

Section two Wednesday February 17<sup>th</sup> by noon

Submit one image or images for each request. Each image should be named using the following convention and submitted to your section’s folder

Example file name: mrp\_1.tif

The assignment must be accompanied with a word document to include the following:

Image mrp\_1.tif

The objective used: 10x

Subject name: Psilotum sp

The setting of the AD for the image

**Due Dates:**

Section one Monday March 21<sup>st</sup> by 1

Section two Wednesday March 23<sup>rd</sup> by 1