

INSTRUMENT NAME: Comparison Microscope

II. SUGGESTED USES: Hair Analysis and Fiber Analysis.

III. OPERATING PROCEDURES:

A. START-UP AND ALIGNMENT

1. Turn on the power switch for both microscope bases.
2. Adjust to the desired light intensity with the rheostat control on each microscope base .
3. Place a slide to be examined on the stage of both microscopes and adjust for "Koehler Illumination" (refer to operators manual for this procedure).
illumination procedure is only performed as

This
needed.

B. COLLECTION AND STORAGE OF DATA

1. Observations of the material in question can be made with respect to but not limited to the following:

* Physical Characteristics

- color
- crystal structure
- internal artifacts
- diameter
- cross-sectional shape
- surface texture
- texturizing

* Optical Properties

- extinction
- refractive indices
- birefringence
- sign of elongation
- pleochroism
- fluorescence(module A)
- fluorescence(module H3)

* Chemical Properties

- reactions to chemical tests
- solubility tests

2. Observations of the materials in question can be recorded by the following means:

* Descriptive writing

* Drawing or sketching

* Polaroid or standard 35mm photography

* Digital image capture

C. SHUTDOWN

1. Lower the light intensity for both microscope bases.
2. Turn off the power switch for both microscope bases.

IV. SAFETY CONCERNS

- A. DO NOT SPEND LONG PERIODS OF TIME MAKING OBSERVATIONS AT HIGH LIGHT INTENSITIES.
- B. DO NOT OPERATE THE MICROSCOPE NEAR SINKS OR AREAS WHERE A POTENTIAL ELECTRICAL SHOCK CAN OCCUR.
- C. WHEN CHANGING BULBS, MAKE SURE THAT THE POWER CORD IS DISCONNECTED.
- D. DO NOT STARE DIRECTLY INTO THE FLUORESCENT LIGHT SOURCES.

V. OTHER INFORMATION

NONE