

Beaumont

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Laboratory

Area: *Laboratory-Chemistry*

Key Words:

Applicability: *Royal Oak*

Adjustment for Kohler Illumination (Nikon Phase Microscope) - Royal Oak

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

- A. The purpose and objective of this procedure is to provide instructions to the technical staff on how to adjust the Nikon phase microscope.

II. PROCEDURE:

- A. Adjustments are for the following:

1. Condenser Height Adjustment
2. Field Diaphragm Aperture Adjustment
3. Field Diaphragm Centering Adjustment

- B. **Frequency: Daily**

1. Rotate the **Knurled Turret Ring of the Condenser** to the OPEN (O) position.
2. Fully open the **Illuminator Field Diaphragm**. (The Condenser Diaphragm will be in the open position).
3. Raise the **Condenser** to its stop position.
4. Focus on a specimen using the low power (10X) Phase Objective. (You may need to decrease the light intensity to prevent eye fatigue).
5. Close the Field Diaphragm.
6. Using the **Control Knob**, move the **Condenser** vertically (down) until the field diaphragm is in sharp focus. Note the PURPLE coloration of the iris leave edges.
7. Open the Field diaphragm.
8. Leaving the knurled Phase Turret Ring at the OPEN position, rotate the 40X Phase Objective into position.
9. Focus on the specimen using the Fine Adjustment Knob.
10. Close the Field Diaphragm.

11. Close the Condenser Diaphragm enough to enhance contrast as desired. Raise or lower the Condenser with the Control Knob to focus the iris leaves. Again, note the PURPLE coloration of the iris leave edges.
12. Center the Field Diaphragm by means of the **Condenser Centering Screws**.
13. Open the Field Diaphragm until the iris leaves just DISAPPEAR from the field of view.
14. Rotate the 10X Phase Objective into position. Open the Field Diaphragm further until the iris leaves JUST DISAPPEAR from the field of view.
15. Return the Knurled Phase Turret Ring to the 10 position. This will fully open the Condenser Diaphragm. All phase microscopy is carried out this way.
16. Adjust the microscope's light intensity as desired.

Attachments

No Attachments

Approval Signatures

Step Description	Approver	Date
Medical Director	Ann Marie Blenc: System Med Dir, Hematopath	1/12/2022
Policy and Forms Steering Committee Approval (if needed)	Gail Juleff: Project Mgr Policy	1/12/2022
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