

Beaumont

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Document Contact **Colette Kessler:
Mgr, Division
Laboratory**
Area **Laboratory-
Chemistry**
Applicability **Royal Oak**

Use of Nikon Phase Microscopes - Royal Oak

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

The objective of this procedure is to provide the technical staff how to make adjustments when using the Nikon Phase microscope.

II. PROCEDURE:

A. Daily Setup

1. Adjust Focus
 - a. Clean eyepieces, objectives, condenser, and field diaphragm with lens paper
 - b. Prepare slide with 1 drop sediment and coverslip
 - c. Close LEFT eye and focus microscope with **Fine Adjust Knob**
 - d. Close RIGHT eye and focus **left eyepiece**
 - e. For triple-headed phase teaching microscope, the other viewers now focus each right and left eyepiece independently
2. Perform Kohler Illumination Procedure if necessary. See attachment called Adjustment for Kohler Illumination Nikon Phase Microscope
3. Check Phase and perform adjustment if necessary. See attachment called Phase Adjustment for Nikon Microscope
4. Document on Urinalysis Maintenance Checklist (Attachment)

B. Operation

1. **Low Power (10X):** Use 10X Phase Objective with condenser turret set at "10"
2. **High Power (40X):** Use 40X Phase Objective with condenser turret set at "40"
3. **Polarization:** Use Nikon Centering Telescope eyepiece on the right eyepiece with the Phase Objective with condenser turret set to "10". Move the "in" "out" lever on the right side to the "in" position

C. Shutdown

1. Please turn off the power switch when the microscope is not in use. Turn the teaching arrow OFF on the triple-headed teaching scope

D. Troubleshooting

1. Replacement source lamp bulbs and teaching arrow illuminating bulbs are in the cupboard above the Nikon microscope
2. To correct for poorly focused images:
 - a. Clean the objectives with an alcohol swab as necessary, followed by lens paper. Clean eyepieces, condenser, and field diaphragm with lens paper
 - b. Recheck the Kohler and Phase adjustments

Attachments

[Adjustment for Kohler Illumination Nikon Phase Microscope](#)

[Phase Adjustment for Nikon Microscope](#)

[Urinalysis Maintenance Checklist.pdf](#)

Approval Signatures

Step Description	Approver	Date
Medical Director	Ann Marie Blenc: System Med Dir, Hematopath	1/3/2023
Policy and Forms Steering Committee Approval (if needed)	Gail Juleff: Project Mgr Policy	1/3/2023
Policy and Forms Steering Committee Approval (if needed)	Colette Kessler: Mgr, Division Laboratory	12/28/2022
Lab Chemistry Best Practice Committee	Caitlin Schein: Staff Physician	12/28/2022

Lab Chemistry Best Practice
Committee

Qian Sun: Tech Dir, Clin
Chemistry, Path

12/6/2022

Colette Kessler: Mgr, Division
Laboratory

12/2/2022

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