

## Optics 2 Grading Rubric, Spring 2008

### III. Using the microscope to inspect Cu grid. (20pts)

1. diagram 2pts.
2. 3 images using different objective lens setup 6pts.
3. line scans of the 3 images 6pts  
discussion 2pts
4. image with aperture 2pts  
discussion 2pts

### IV. Diffraction of sample A and B (25pts)

1. diagram 3pts
2. for sample A  
diffraction pattern 2pts  
vectors 2pts  
lattice constants 5pts  
lattice type 2pts
3. for sample B  
diffraction pattern 2pts  
vectors 2pts  
rotation 5pts  
lattice type 2pts

### V. Create dark-field images of slide A and slide B. (25pts)

1. diagrams 5pts
- 2.i. dark field image A 2pts  
dark field image B 2pts  
location of aperture 2pts
- 2.ii. dark field image A 2pts  
dark field image B 2pts  
location of aperture A 2pts  
location of aperture B 2pts
3. image edge contrast 2pts  
location of aperture 2pts  
discussion of mech. 2pts

### VI. Use the constructed microscope to characterize the colloidal sample. (20pts)

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|------------|-------|
| Diagrams   | 5pts  |
| Images     | 10pts |
| Discussion | 5pts  |

**One page draft 10pts**

**Total: 100pts**