

Homework Due 12 Apr before class. NAME _____

Light Scattering Concepts (100pts).

Please refer to the nanoparticle optics lecture and light scattering activity.

1. 40pts) Explain in words you might use to a non-physics friend, how the scattering plane, the scattering angle, and polarization direction is defined. Your explanation should include an example of 0° and 180° scattering directions.

2. 15pts) Why is the sky blue? Devise a simple experiment you could do to determine this. (Hint: It involves a simple optical observation.)

3. 15pts) Give examples of two characteristics of dipole scattering.

4. 15pts) Define multiple scattering.

5. 15pts) Define monodisperse and polydisperse.