

Phys 150: Homework 2

Due in class on **Tuesday, October 7nd** at 3:30pm in North Hall 1111.

From Biological Physics by Nelson

1. Nelson, Problem 2.1, pg 64 (3 pts)

2. Nelson, Problem 2.2, pg 64 (9 pts)

Print three of your favorites. Experiment with different coloring schemes. Tell me which molecular visualization software you used.

3. Nelson, Problem 2.3, pg 64 (6 pts)

Print two of your favorites. Experiment with different display options (space filling, cartoon, ribbon, *etc.*). Tell me which molecular visualization software you used.

4. Nelson, Problem 2.5, pg 64 (9 pts)

What is the size of the micelle? List three major differences between the surfactant that comprises the micelle and the lipid that comprises the bilayer. Give a structural/geometrical argument for why the two different molecules prefer their different arrangements.

5. Nelson, Problem C.2.7, pg 577 (6 pts)

For 4-units

6. Nelson, Problem C.2.6, pg 577 (5 pts)

7. Nelson, Problem C.2.8, pg 577 (5 pts)