

Prelab #6—Polymer Synthesis

Name _____

Lab section: M T W Th F

1. In your own words, what is a polymer? _____

2. What polymer will you be making in lab? _____

3. Draw a molecular structure for the polymer you will be making in lab.

4. Just for fun: What year do you think nylon was invented? _____

5. Glance at the article [Nylon: A Revolution in Textiles](#).

a. What year did nylon first enter the public consciousness? _____ This is the same year DuPont started construction on a nylon production plant.

b. Look at the paragraph beginning "Within a year..." In your own words, state why (chemically) the researchers decided to focus on making nylon 6.6?

6. Read the section of the lab manual regarding identification of IR spectra. Peruse Table 3. Recall that a spectrum will always contain at least one peak from each type of IR-absorbing bond (i.e. each vibration causing IR absorption). Referring to the IR spectrum on the next page, which type of polymer might it be? Circle all that apply.

Nylon 6.6

PETE

Polyethylene

Polystyrene

