PRE-LAB for the Azo Dye Synthesis

You will find the procedure for this lab in the ‘Handout’ section of the website & canvas.

The specifics for the prelab

Important Note: This prelab will contain a reagent table and some additional question. This prelab should be written in your lab notebook and photocopied and turned in before your begin the lab.

The specifics for the prelab

You do not have to write a ‘purpose’ for this reaction—the reaction equation is considered the ‘purpose’. Be sure to put in your choice of the primary amine and activated aromatic to use.

Create a reagent table for this reaction—(this should be placed directly below the reaction equation). The table should include names of starting materials, MW, moles and grams to be used and theoretical yield (in grams) of the final product.

Pick your primary amine and activated aromatic and write the reaction equation for your dye reaction. Draw a likely azo dye product. (Consider that you may have more than one product due to ortho, para substitution parameters—If you feel that you might produce more than one product you can draw all that you feel might be possible but only one if required)

Create a reagent table for this reaction. The table should include names of starting materials, MW, moles and grams to be used and theoretical yield of the dye. List all amines as toxins. You do not need to list the ‘diazonium salt, name of the dye or any melting \ boiling point information.

Pre lab questions:

1) What is the name of the type of mechanism for this reaction?

2) What is the reason for initially keeping this reaction at 0° C?