

Organic 212L
Advanced Study Assignment
Mystery reaction # 2/ 2D NMR

Name: _____

- 1) Give MSDS information on triphenylmethanol.

- 2) Give MSDS information on 47% hydriodic acid

- 3) Why do you add sodium bisulfite after refluxing?

- 4) Describe how to run a copper wire test.

- b) We used to do a copper wire test on another mystery reaction. The test used to give false positives. Why would your copper wire test give a false positive?

- 5) An IR might help you in figuring out the identity of the product. How will you know the hydroxyl group is gone in the product?

- 6) How can you tell if your product contains iodine?

7) a) What is a 2D NMR? b) What is a 3D NMR? c) What is a 4D NMR?

8) Give some examples of a 2D NMR.

9) Which 2D NMR are you choosing to carry out?

10) Plot a 2D NMR of the same type that you chose. For example, if you choose to run a Hetcor, you would draw a Hetcor below.

11) We are using sealed standards for our 2D NMR in an effort to be more “green”. Assume you are wanting to take a 2D NMR of benzoic acid in CDCl_3 . Describe how you would make a sample of benzoic acid and CDCl_3 to use in the NMR.