

Chemical Synthesis and Analytical Techniques Day at the University of Manchester.

Although the primary aim for the visit to the School of Chemistry at the University of Manchester was to introduce the triple science students to different analytical techniques, the synthesis and monitoring the progress of the conversion was done really well by the students and they could actually see when the reaction had reached completion.

At the start of the day they had looked a little worried when names like "Benzophenone" and "Carbonyl" were being used to explain the experiment they were going to carry out since they don't come across these in GCSE Chemistry. However, once they got into the lab and the demonstrators for each group explained each step to them, they relaxed and really enjoyed using chemicals and equipment that you just don't have in your standard 11-16 comprehensive school. Even students who find Chemistry quite difficult and will be taking the foundation tier paper in the summer found the steps easy to follow and could monitor the progress of their reaction using TLC and observing the chromatograms under UV light. A comparison between the IR spectrum of Benzophenone (Reactant) and Diphenylmethanol (product) allowed them hands on practice of IR spectroscopy and a relevant spectrum to analyse back in the classroom.

A tour of the different analytical machines used in the School of Chemistry took place while their product was drying and the NMR machine in particular fascinated the majority of students. They could really get a close look at the size of the machines and their cost!! For myself, having an understanding of how they all work pales into insignificance when I try to get my head around where you would start to design and build one of those machines from scratch. I had a good discussion with some of the students about chemical engineers and how I am in awe of them.

At least half of this class want to continue with Chemistry at A-Level and I think most of those will further their education with some sort of Science degree.

Overall it was a very successful trip and one which I hope to repeat in the coming years with the next generations of budding scientists.

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