62 Julian Avenue

Ryan McGuire

Tyne and Wear

South Shields

NE33 2EW

ryanmmcguire@outlook.com

(0191) 4554248 / 07598239573

Throughout my time at University I have strongly enhanced and developed my analytical and practical skills. I believe I am now in an excellent position to embark on a new enterprise, to expand and focus my knowledge and passion for chemistry whilst continuing in my development. I will bring enthusiasm, integrity and creativity to any new team and, as I thrive under pressure, I know any task I am given will be completed to the highest possible standard.

Qualifications

-Graduating in July 2013, predicted 1st / 2:1 in **Applied Chemistry (MChem)** from Northumbria University.

Relevant Degree Modules:

* + **Laboratory**

In these modules a wide array of chemical experiments were performed with the aim of **synthesising compounds** with **emphasis on obtaining high purity and yields**. Upon conclusion **lab reports** were produced detailing all observations and **interpreting data. “ChemLab” modules: 1A 70%, 1B 77%, 2A 70%, 2B 80%.**

**3rd Year Dissertation (Analytical):** Evaluation of a Manganese (III) Complex as an Oxidation Catalyst **64%:** Involved devising tests and evaluating the ability of a catalyst to perform oxidation reactions on various alkanes/alkenes under green conditions. Extensive use of **GC-MS** in conjunction with spectroscopic methods to study and analyse the potential of the catalyst in oxidation reactions.

**Final Year Dissertation (Organic Synthesis):** Synthesising Imidazole Derivatives: Involved scaling reactions, synthesising and purifying novel compounds using ambient conditions which were then characterised using analytical methods. Involved extensive use of liquid chromatography and thin layer chromatography (TLC) to purify compounds.

* **Analytical**

The theory of various analytical techniques has been studied and applied in a laboratory setting. These include **GC, HPLC, XRF, AAS, UV/VIS Spectroscopy, NMR (H1** and **C13), MS and FTIR.** Each experiment was accompanied with a report produced **analysing data** with **conclusions presented**. Relevant modules: Analytical Principles and Practice **77%**, Applied Analysis **78%** Spectroscopic Techniques **90%** Analytical Methods **70%** Molecular Characterisation **60%**

### A-levels: Mathematics (C), Chemistry (C) and Biology (C) attained in July 2009 at St Joseph’s RC Sixth Form College.

### 6 GCSE’s A\*-C including English, Mathematics and Science. They were obtained in July 2007 at Bamburgh School.

### Skills and Relevant Experience

***IT Skills***

Extensive use of computer software, including Microsoft Word, Excel, PowerPoint and specialist software such as SPSS (statistical analysis), Gaussian and Hyperchem (molecular mechanics).

***Presentation / Report Writing***

During my degree I was required to deliver presentations to large audiences which included my peers and expects in the field. This has developed my confidence and overall presentational technique. Other methods of presenting my findings and conclusions took the form of producing reports. These had to be of a high standard to withstand scrutiny and to accurately present the results of scientific research and investigation.

***Team Working***

Team working is essential for the work place. During my time at university I was often required to collaborate in groups to produce data, complete tasks and then present the results. When working in an office team work was vital to provide the best service to callers and assist them with any problems or concerns.

***Experience in Working in a Regulated Environment***

The laboratories in Northumbria University is a highly regulated environment and over the last two years, during my 3rd and final year projects, I have **worked independently** within this **environment adhering to GLP** and being **responsible** for my own and others **safety** with the completion of **COSHH forms** before commencement of work. This process I believe has given me **greater responsibility** and **understanding** of working within a **regulated environment**.

***Good Attention to Detail***

During laboratory sessions, **paying attention to detail was essential** to analyse data accurately and precisely. The detail had to be taken into account for example **(GC)** with **calculations**, **injecting** the machines and the **temperature gradient** being optimum for the compound used. In the work place it was vital to obtain as much essential details as possible to provide effective and efficient solutions.

Work Experience

Causal Worker/Contact Centre Advisor

**G4S** Contact centre, Newcastle

August 2012- September 2012

Gained experience in handling a wide variety of problems including: Providing advice, information and assistance to callers, supervising colleagues and sending reports to superiors. Verbal communications, problem solving skills were developed along with the ability to work under pressure and deadlines.

Other

My degree is accredited by the Royal Society of Chemistry (RSC) and satisfies the academic demands for the progression to Charted Chemist (CChem) through continued professional development.

References are available upon request.