



**Applications are invited for a PhD studentship for the following project:**

***Nano and micropatterning of polymer and biopolymer structures through phase separation and fabrication***

The position will be based with the Surface and Interface Chemistry group in the School of Chemistry, Trinity College Dublin and will be supervised by Prof. Mick Morris. The project will be part of the Engineered Functional Materials platform within the Advanced Materials and Bioengineering Research Centre (AMBER) centre.

Summary of project

Polymer membranes form the backbone of the separation and filtration industry. A particular application is bio-separation which is growing in importance in chemical production but also in a range of advanced medical devices. However, these membranes have very significant limitations in the conditions where they can be used. They are thermally, chemically and mechanically non-robust and their environment needs strict control. Here we will examine if the polymer membrane can be used to create a ceramic mimic by the impregnation of the polymer by inorganic precursors using solvent swelling. Prepared ceramic membranes will be tested in a range of applications.

Selection criteria

A skilled, motivated and enthusiastic candidate is sought for this PhD project. The ideal applicants will have a 1<sup>st</sup> Class Honours Bachelor's degree in Materials Science, Chemistry, Physics or a related discipline. Applications will be considered from EU candidates only due to limitations on the funding available for fees. The project will primarily be conducted in the labs in AMBER and the studies will be undertaken through the School of Chemistry, Trinity College Dublin. The ability to work both independently and as part of a multidisciplinary project team in addition to excellent oral and written communication skills will also be required for the successful realisation of the project.

How to apply:

CVs with the names and addresses of three referees should be submitted to:

Prof. Mick Morris (MORRISM2@tcd.ie)

Positions will remain opened until filled but preferred start date is September 2 2019. Only short-listed applications will be acknowledged.

This position is funded by the SFI-research centre AMBER.

The AMBER research centre, as a community of researchers, welcomes its responsibility to provide equal opportunities for all. We are actively seeking diversity in our research teams and particularly encourage applications from underrepresented groups.