PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
School	School of …Science……..
Supervisors	*Please list all the names in the supervisory team. It should be consistent with the information on your approved PGRS proposal.* Principal supervisor: Dr…Yi Lin… (XJTLU) Co-supervisor: Professor/Dr……...(XJTLU) Co-supervisor: Professor …Alessandro Troisi……(UoL) Co-supervisor: Professor Changqi Ma (SINANO)
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Investigation of acrylate-NBE as photosensitive materials for the application in surface microfabrication
Contact	Please email…yi.lin@xjtlu.edu.cn (XJTLU principal supervisor's email address) with a subject line of the PhD project title. The principal supervisor's profile is linked here: https://www.xjtlu.edu.cn/en/departments/academic-departments/chemistry/staff/yi-lin

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in Chemsitry, Materials, and relevant areas
Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 or above, if the first language is not English. This position is open to all qualified candidates irrespective of nationality.

Degree:

The student will be awarded a PhD degree from the University of Liverpool (UK) upon successful completion of the program.

Funding:

The PhD studentship is available for three years subject to satisfactory progress by the student. The award covers tuition fees for three years (currently equivalent to RMB 99,000 per annum). It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. The scholarship holder is expected to carry out the major part of his or her research at XJTLU in Suzhou, China. However, he or she is eligible for a research study visit to the University of Liverpool up to six months, if this is required by the project.

Project Description:

Light-induced surface energy conversion of hydrophobic surface to hydrophilic patterns is a new technology for surface microfabrication. o-nitrobenzyl alcohol derivative with terminal acrylate groups (acrylate-NBE) is a highly efficient light-sensitive material for this application. However, the maximum absorption wavelength (λmax) of the acrylate-NBE is limited at 254 nm, making it incompatible with commercially available UV lithography. With the help of molecular simulation, the current project will functionalize the NBE molecules with electron-donating moiety or extended π-conjugated fused rings to red-shift the λmax of the NBE molecules. Meanwhile, we will systematically investigate the photon decomposition mechanism of these NBE molecules and try to understand the structure-property relationship of these new materials. In the end, we will study the application of these materials in surface microfabrication.

For more information about doctoral scholarship and PhD programme at Xi'an Jiaotong-Liverpool University (XJTLU), please visit

https://www.xjtlu.edu.cn/en/admissions/global/entry-requirements/

https://www.xjtlu.edu.cn/en/admissions/global/fees-and-scholarship

How to Apply:

Interested applicants are advised to email…yi.lin@xjtlu.edu.cn (XJTLU principal supervisor's email address) the following documents for initial review and assessment (please put the project title in the subject line).

- CV
- Two formal reference letters
- Personal statement outlining your interest in the position
- Certificates of English language qualifications (IELTS or equivalent)
- Full academic transcripts in both Chinese and English (for international students, only the English version is required)
- Verified certificates of education qualifications in both Chinese and English (for international students, only the English version is required)
- PDF copy of Master Degree dissertation (or an equivalent writing sample) and examiners reports available