

PhD studentship (Full-time)

Institution	Xi'an Jiaotong-Liverpool University, China
Department	Department of Chemistry
Supervisors	Principle supervisor: Dr. Graham Dawson (Xi'an Jiaotong-Liverpool University) Co-supervisor: Prof. Mathias Brust (University of Liverpool, UK);
Application Deadline	Open until the position is filled
Funding Availability	Funded PhD project (world-wide students)
Project Title	Nanomaterial composite synthesis to achieve visible light active photocatalysts
Contact	Please email graham.dawson@xjtlu.edu.cn (principal supervisor's email address) and copy doctoralstudies@xjtlu.edu.cn with a subject line of the PhD project title

Requirements:

The candidate should have a first class or upper second class honours degree, or a master's degree (or equivalent qualification), in chemistry or materials chemistry. Evidence of good spoken and written English is essential. The candidate should have an IELTS score of 6.5 or above, or an equivalent qualification, 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 80,000 per annum) and provides a monthly stipend of 3500 RMB as a contribution to living expenses. It also provides up to RMB 16,500 to allow participation at international conferences during the period of the award. It is a condition of the award that holders of XJTLU PhD scholarships carry out 300-500 hours of teaching assistance work per year. 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 of up to three months, if this is required by the project.

Project Description:

It is the aim of this project to modify inorganic semiconductors (specifically trititanate nanotubes) through surface functionalisation with noble metals and organic molecules to prepare visible light active photocatalytic materials for applications in environmental degradation and analysis. Direct addition of Au to surfaces results in an increase in photocatalytic activity, however with no control over the position of the Au. It is believed that controlled hierarchical self-assembly will improve control over the structure and properties, improving photocatalytic performance and offering important insights into the processes occurring in heterostructure photocatalysis. This material should also be rendered SERS active, thus creating a recyclable SERS substrate for trace analyte analysis.

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

<http://www.xjtlu.edu.cn/en/admissions/phd.html>

<http://www.xjtlu.edu.cn/en/admissions/phd/feescholarships.html>

How to Apply:

Interested applicants are advised to email graham.dawson@xjtlu.edu.cn (principal supervisor's email address) the following documents and copy doctoralstudies@xjtlu.edu.cn (please put the project title in the subject line).

- CV
- Two reference letters
- Personal statement outlining your interest in the position
- Proof of English language proficiency (an IELTS score of above 6.5 or equivalent is required)
- Verified school 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)

Informal enquiries may be addressed to Dr. Graham Dawson (graham.dawson@xjtlu.edu.cn), whose personal profile is linked below, <http://www.xjtlu.edu.cn/en/departments/academic-departments/chemistry/staff/graham-dawson>