

PhDs in Chemistry

The School of Physical and Chemical Sciences offers PhD research opportunities in a wide range of areas, and is currently home to over 140 Chemistry students. The Chemistry department at Queen Mary is a vibrant and growing department, with internationally leading researchers.

Research Areas

Functional Materials and Nanoscience

Development of novel functional materials in different areas from organic (bio)electronics and sensing, to hierarchical/multifunctional inorganic hybrid nanostructures, as well as alternative materials in sustainable batteries, and molecularly imprinted nanogels.

Physical & Computational Chemistry

Application of experimental and computational methods to investigate challenging phenomena from biological and material sciences. We have expertise in a range of experimental techniques including EPR, neutron scattering, muon spectroscopy and time-resolved spectroscopies. We further apply and develop computational approaches in the areas of ab-initio and classical

molecular dynamics, excited states, solid state modelling and machine learning.

Synthesis and Catalysis

Development of more efficient and sustainable methodologies for organic synthesis including: Harnessing reactive intermediates (such as arynes) for the direct functionalisation of C-H bonds, use of organometallic and biohybrid catalysis for the preparation of molecules with biological activity and optoelectronic properties, use of visible light as the source of energy for the development of new, sustainable catalytic reactions.

Funding

- Queen Mary Research Studentships
- EPSRC studentships
- Grant funded studentships
- Various international scholarships.

More information at www.qmul.ac.uk/postgraduate/research/funding_phd

Contact for PhD enquiries:

Robert Miles,
r.miles@qmul.ac.uk

Application process

1. Identify a potential supervisor.

Funded projects are advertised at <https://www.qmul.ac.uk/spcs/chemistry/phdresearch/phd-projects/>. Other projects within our research themes may also be possible. As an externally funded applicant, you must contact supervisor and get their agreement to proceed with the application. For funded projects, contact with your supervisor is not essential.

2. Submit an online application.

You will need to include your CV, transcripts, references and a statement of purpose. A research proposal may be required.

3. Interview.

If the prospective supervisor is interested in taking the application further, you may be invited for a formal interview.

4. Apply for external funding if required.

This may be done at any stage. Offers may be conditional on obtaining funding.

For further guidance, please see:

[qmul.ac.uk/spcs/phdresearch/application-process/](https://www.qmul.ac.uk/spcs/phdresearch/application-process/)

Entry requirements

- A masters degree is normally required
- A bachelors degree with 2:1 or higher may be considered with sufficient research experience
- Other relevant experience may be taken into account
- IELTS with 6.5 overall, 6.0 in writing and 5.5 in speaking, listening and reading

Application deadlines

September 2024 entry

- China Scholarships Council, QM Principal Science and Engineering and BAME Studentships: **31st January 2024**
- Self-funders can inquire with prospective supervisors throughout the year.

NOTE: Some external funding bodies require a separate application, with different deadlines – please check [qmul.ac.uk/scholarships/database](https://www.qmul.ac.uk/scholarships/database)

Student profile

Maria Rojas-Ruiz is researching new functional nanomaterials under the supervision of Dr. Cristina Giordano. She is originally from Colombia, studied Chemistry for her bachelor's at the University of Barcelona, and moved to London for her masters in Chemical Research at Queen Mary University of London.

"I chose to start my PhD at Queen Mary UoL as it is considered a top university for its academic excellence, research focus, and international outlook. The modern facilities and excellent student support offered by the university facilitate interdisciplinary collaboration, contributing to a more productive and rewarding research experience, leading to higher-quality research outcomes, diverse learning experiences, and improved career prospects. As an international student, the best experience has been being part of a diverse and vibrant community, as here I have found full support from my colleagues and supervisor any time I needed."