

Assistant Professorship in Theoretical Chemistry

Yusuf Hamied Department of Chemistry and Girton College

CLOSING DATE: 24 November 2024

Job Reference: MA43347

















The role

Salary:

£45,585 - £57,699

Contract:

Permanent

Location:

Central Cambridge

Faculty / Department:

Yusuf Hamied Department of Chemistry and Girton College

Responsible to:

Jointly: the Head of the Department of Chemistry and the Senior Tutor, Girton College

Working Pattern: Full Time





Purpose of the role

Applications are invited for a University Assistant Professor (Research and Teaching) to work in the area of theoretical chemistry, broadly defined. The post is linked to the Rokos Fellowship in Chemistry at Girton College, to which the successful applicant will be simultaneously appointed. This linked post is intended to reflect and build on Girton's commitment to advancing Equality, Diversity and Inclusion in STEM research and Higher Education.

The successful applicant will have excellent record of research in theoretical chemistry (broadly defined), and will be expected to develop a dynamic, high quality and externally-funded research programme at an international level. Interdisciplinary and collaborative research is strongly encouraged across the university and its associated institutes

Applicants should hold a PhD in chemistry or in a closely related subject and they should be able to lecture at undergraduate and Masters levels in chemistry.

As a College Lecturer, the successful applicants will engage in directing studies, undergraduate teaching, admissions interviews and other duties agreed with the College for between 3-4 hours a week during term time.

College benefits include office space, free meals, potential research assistance through the Rokos internship scheme, College funding to support conference participation, publications and other research activity and College housing support.

Appointment to this Assistant Professorship is to the retiring age, subject to satisfactory completion of a probationary period (five years), when the post-holder will become an Associate Professor. The post holder will be eligible to apply for promotion to Professor (Grades 11 & 12) via the University's Academic Career Pathway (Research and Teaching) scheme.

In order to facilitate the research career of the appointee, duties in the first two years will be light. A generous start-up package will be provided to assist the post-holder in establishing their independent research group.

The Department has a strong track record of supporting the development of new appointees, allowing them to flourish in their chosen areas. Several of our current full professors joined the Department as research fellows or junior lecturers, and with sustained support from the Department their careers have taken rapid and steep upward trajectories.

Informal enquiries about the position may be made to Prof. James Keeler (Head of Department,

hod@ch.cam.ac.uk) and to Prof. Toni Williams (Senior Tutor, Girton College, senior.tutor@girton.cam.ac. uk)

Person Specification

Criteria	Essential	Desirable
Education		
Candidates should hold a PhD in chemistry or in a closely related subject and have an outstanding research record	✓	
Academic		
A developing bibliography of research publications	✓	
Demonstrate a firm commitment to teaching at both the undergraduate and postgraduate levels	✓	
A track record of securing research funding		✓
Willing to take a leading role in the supervision of Research Students	✓	
Committed to advancing Equality, Diversity and Inclusion in STEM research and Higher Education	✓	
An interdisciplinary and collaborative research approach		✓
Demonstrate an ability to lecture a range of courses in chemistry		✓
Leadership experience and achievements		
Willingness to undertake management and administrative duties	✓	
Proven ability to lead and inspire a team and work with vision and foresight		✓

The Yusuf Hamied Department of Chemistry



The Yusuf Hamied Department of Chemistry consists of a large number of strong individual research groups covering a very wide spectrum of science, centred on chemistry, but ranging from molecular biology to geophysics.

Theoretical chemistry has deep roots in Cambridge starting from the pioneering work of a Lennard-Jones and carried forward by major figures such as David Buckingham, Nick Handy, Ruth Lynden-Bell, and Daan Frenkel. The tradition continues today in the vibrant and supportive Theoretical Chemistry Group. The successful applicant will find a warm welcome in this Group, and will also have the opportunity to join the **Lennard-Jones** Centre. The centre brings together researchers from different departments across the University of Cambridge with a common interest in materials and molecular modelling and aims to foster an inclusive environment from which new ideas and collaborations can emerge.

The Department consists of about 50 permanent members of the academic staff, 140 support staff, 300 postgraduate students and 200 postdoctoral research workers. The research is supported by a wide range of sources including the Research Councils, the European Union, industry and charities. Over the past 5 years the average research grant income has been £20M / year. The Department also receives direct funding from the University to maintain key support staff and facilities, along with significant income from endowment funds.

Many of the academic staff have been awarded major medals or prizes, we have 7 Fellows of the Royal Society active in research, and three colleagues have received knighthoods or damehoods in recognition of their scientific work. In international comparisons the Department is consistently ranked in the top four and is the highest ranked department in the UK.



The range of research in the Department is exceptionally varied, and much of it is carried on in collaboration with other departments in Cambridge. such as physics, materials science, biochemistry and the many departments on the biomedical campus. Many staff also have international collaborations and are members of international networks. The University encourages translational research and the commercial exploitation of intellectual property, and several members of the academic staff have spun out companies which have attracted significant funding.

The Department is housed in a single site in the centre of Cambridge. The main building dates from the late 1950s but it has been continuously updated and refurbished to meet our current needs.

There are two significant recent additions to the main building: the Centre for Chemical Informatics (added in 2000) which houses research space, a library/study area and our 'Cyber Café' over four floors; and the Chemistry of Health building (added in 2018) – an exceptionally high-quality building which over four floors houses biological/biophysical research and a commercial incubator

We attract applications from the highest quality PhD students and postdoctoral research staff from around the world. The administrative and support staff are of the highest caliber, enabling and supporting our research and other activities.

The teaching of undergraduate chemistry takes place within the framework of the Cambridge Natural Sciences Tripos. Chemistry in the most popular subject for first-year Natural Science students (about 450 each year), and it remains a popular subject right through the end of the course. Our third year class is typically 120, and of these about 80 go on to complete the fourth year (thus gaining an integrated masters). Current research in the Department is strongly represented in the latter years of the course.

Further details of all the Department's activities can be obtained from the Department's website:

http://www.ch.cam.ac.uk



Girton College



Girton College, Cambridge – pioneering, progressive and fearless – has led the way in educational empowerment since its1869 foundation as the UK's first residential institution for the higher education of women. Excellence in STEM subjects has marked Girton from the earliest days notwithstanding the barriers to success that women in sciences have encountered. The College's first major donation for post-doctoral research, for example, funded the early research career of organic chemist, Frances Hamer, whose ground-breaking work transformed colour photography.

Girton College nurtures academic excellence within an atmosphere that is relaxed, friendly and supportive. Its magnificent 50-acre site provides a inspirational environment in which students, staff and Fellows benefit from historic buildings, beautiful gardens, areas of orchard and woodland and exceptional cultural and sports facilities, including a beautiful indoor pool. The College offers a holistic educational experience that combines intellectual rigour with a vibrant social scene as well as excellent welfare provision. It is one of Cambridge's larger colleges and has some 120 Fellows in all, about 80 of whom are fully involved in day-to-day governance, teaching and research and over 135 administrative and operational staff. Girton's co-educational student community is made up of 538 undergraduate students and 410 postgraduates.

. Senior Members of the College meet regularly over weekday lunches throughout the year as well as at in-house research talks, dinners, concerts and academic events during term.

The Natural Sciences Tripos, the framework for most undergraduates studying science at the University of Cambridge, is very popular, with most Colleges recruiting well to both the Physical and Biological Sciences strands. Girton is no exception. We have about 80 undergraduate students reading Natural Sciences as well as an vibrant postgraduate community at Masters and PhD levels.

As Director of Studies you will:

- Collaborate with other College Fellows on Admissions and Recruitment of Natural Sciences undergraduates to Girton College;
- Co-ordinate the Supervision (small group) teaching for Chemistry students to afford Girton students access to specialist instruction across their academic papers;
- Support Girton Chemistry students academically to enable them to flourish in their studies at at Girton College.

The School

The School of the Physical Sciences is one of six Schools making up the academic work of the University. It covers Astronomy, Chemistry, Earth Science, Geography, Materials Science and Metallurgy, Mathematics and Physics.

The School's aim is to contribute to our understanding of the physical world through excellence in observational, theoretical and experimental science and to extend quantitative, qualitative and combined methodologies to address problems in the fields of biology, technology, medicine, social science and the humanities. In pursuit of these goals, the School coordinates objectives in research, teaching, and infrastructure.

About the School

The School of the Physical Sciences comprises the following Departments:

Applied Mathematics and Theoretical Physics (DAMTP)

Chemistry

Earth Sciences

Geography (including the Scott Polar Research Institute)

Institute of Astronomy

Isaac Newton Institute of Mathematical Sciences

Materials Science and Metallurgy Physics (Cavendish Laboratory)

Pure Mathematics and Mathematical Statistics (DPMMS)



The School is responsible for allocating core funds to departments and provides broad strategic focus across its constituent departments in a number of areas including; research activity, undergraduate and graduate education, estate needs, fundraising and human resources

As part of the University's annual planning cycle, the School prepares a financial and academic plan which sets out strategic objectives, determines budgets as well as the flow of resources to departments. The School manages a wide range of administrative activities and projects across its departments and works alongside other Schools to further interdisciplinary research.

The School has over 1500 members of staff, over 3000 students and an annual budget of over £100 million.

Terms of Appointment

Tenure and probation Appointments are to the retiring age for established academic positions. For University Associate Professors and University Assistant Professors the appointment is subject to satisfactory completion of a five year probationary period.

Working Pattern

The appointment is full-time.

Pension

You will automatically be enrolled to become a member of USS (Universities Superannuation Scheme) – a hybrid pension scheme. If you are already a member of the NHS Pension scheme, you may be eligible to continue in the scheme and should contact the Pensions section of the University:

www.pensions.admin.cam.ac.uk/.

Annual leave

Subject to compliance with the Statutes and Ordinances relating to leave, full time officers are entitled in any holiday year to take a minimum of 28 days annual paid holiday. These periods are inclusive of public holidays that fall outside Full Term.

Sabbatical leave

Cambridge is generous in having statutory provision for leave of absence of one term for every six terms of service. Academic staff use this opportunity for study and research.

College membership

As this is a linked appointment, the appointed person will necessarily become a Fellow at Girton College, Cambridge.

Residence

It is a requirement of the role that you are

resident in the University during term-time. Further information can be found here: https://www.admin.cam.ac.uk/univ/so/2019/ch apter11-section1.html#indexterm-d358e257

General information

Pre-employment checks

Right to work in the UK - we have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. If you do not have the right to work in the UK already, any offer of employment we make will be conditional upon you gaining it.

Health declaration - once an offer of employment has been made the successful candidate will be required to complete a work health declaration form.

References - offers of appointment will be subject to the receipt of satisfactory references.

Qualifications - the person specification for this position lists qualifications that are essential and/or desirable. Please note that if you are offered the post you will be asked to provide your relevant original certificates of these qualifications.

Equality and Diversity

We particularly encourage women and /or candidates from a Black, Asian and Minority Ethnic background to apply for this vacancy as they are currently under-represented at this level within our University.

Information if you have a disability

The University welcomes applications from individuals with disabilities. We are committed

to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so and, if successful, to assist them during their employment. Information for disabled applicants is available at www.admin.cam.ac.uk/offices/hr/staff/disabled/

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

If you prefer to discuss any special arrangements connected with a disability, please contact, the Department Administrator, who is responsible for recruitment to this position.







The University

The University of Cambridge is one of the world's oldest and most successful universities. We are a renowned centre for research, education, and scholarship that makes a significant contribution to society. The University is consistently ranked amongst the top universities in the world. Our affiliates have won more Nobel Prizes than any other University.

Our sustained pursuit of academic excellence is built on a long history of worldleading teaching and research within a distinctive collegiate system. For eight centuries our ideas and innovations have shaped the world. Our principal goal is to remain one of the world's leading universities in an increasingly competitive global higher education sector. Today the University of Cambridge is at the centre of a cluster of over 4,300 businesses employing 58,000 people.

Our capital investment projects include academic and commercial growth at both the West Cambridge Innovation District, and the Biomedical Campus in the south of the city. Eddington, in North West Cambridge, is a mixed-use development including key worker housing for staff, a community centre and a new primary school, managed by the University. Through these projects, the University is deeply embedded in, and committed to serving, our local community. These are all conspicuous signs of a University that is not only adapting to new needs, but also anticipating the future.

Our mission is to contribute to society through the pursuit of education, learning, and research at the highest international levels of excellence. Our core values are:





About Us

The University is one of the world's leading academic centres. It comprises 150 faculties and departments, together with a central administration and other institutions. Our institutions, museums and collections are a world-class resource for researchers, students and members of the public representing one of the country's highest concentrations of internationally important collections.

The University has an annual income of £2 billion. Research income, won competitively from the UK Research Councils, the European Union (EU), major charities and industry, exceeds £500 million per annum and continues to grow.

The Colleges and the University remain committed to admitting the best students regardless of their background and to investing considerable resources both in widening access and financial support. The 31 Colleges are self-governing, separate legal entities which appoint their own staff. Many academic staff are invited to join a College as a Teaching Fellow, which provides a further social and intellectual dimension. The Colleges admit undergraduate students, provide student accommodation and pastoral support and deliver small group teaching for undergraduates.

The University awards degrees and its faculties and departments provide lectures and seminars for students and determine the syllabi for teaching.

Our instinct for seeking out excellence and setting up enduring and mutually beneficial collaborations has led us to establish strategic partnerships across the globe. Whether it is the successful Cambridge-Africa Programme involving universities in Ghana, Uganda and elsewhere on the African continent; or the close association with the government of India to pursue new research in crop science; or the creation, with Germany's Max Planck Institutes, of a Cambridge-based centre for the study of ethics, human economy and social change – international partnerships are now an inextricable part of the University's make-up.

"Cambridge graduates and researchers have made – and continue to make – a colossal contribution to human knowledge and the understanding of the world around us. Their work touches on the lives and livelihoods of everyone from patients diagnosed with life-threatening diseases, to residents of areas critically affected by climate change, to children growing up in conflict zones. It has a lasting impact on our society, our economy and our culture: the world is truly a better place thanks to their efforts."

Stephen Toope, Vice Chancellor 2019

Working at the University

Working at Cambridge you will join a diverse, talented and innovative community, with more than 23,000 students and over 16,000 staff from all walks of life and corners of the world.

The University continually explores strategies to attract and retain the best people. It is committed to supporting its staff to achieve their best. We are a fair, diverse and inclusive society and we believe our staff are our greatest asset. There is strong commitment to developing institutional leadership and supporting and encouraging staff development at all levels.

We offer a variety of roles including academic, research, professional, managerial and support roles. We also offer extensive benefits and excellent learning opportunities within a stimulating working environment.

The University's estate is undergoing the most significant transformation in its history. Cambridge has been able to create a science and technology campus to the west of the city centre, and is expanding further to the north west of Cambridge including investing in affordable homes for University key workers and community facilities. Even with our continued development, the University remains within walking or cycling distance across the campus. The University is a major partner on the Cambridge Biomedical Campus and we continue to redevelop our historic city centre sites demonstrating our determination to ensure that we can offer the best facilities and opportunities for our staff and students.



Equality & diversity

The University has built its excellence on the diversity of its staff and student community. We aim to be a leader in fostering equality and inclusion, and in promoting respect and a sense of belonging for all. We encourage applications from all sections of society. All appointments are made on the basis of merit. We have an Equal Opportunities Policy, along with a range of diversity groups, including the Women's Staff Network, Race Equality Network and LGBT+ Staff Network. More details are available here: http://www.equality.admin.cam.ac.uk/

The University has a bronze Race Equality Charter award, with a framework for improving the representation, progression and success of minority ethnic staff and students within higher education. Furthermore, the University's silver Athena swan award recognises and celebrates good practice in recruiting, retaining and promoting gender equality.

Living in Cambridge

Cambridge is rich in cultural diversity. From beautiful University and College buildings, museums and art galleries, quaint gardens and punts on the River Cam, to a vibrant restaurant and café scene, our employees are surrounded by the wonderful features of this unique city.

You can find a wide-range of high street shops and 3 shopping centres, with independent alternatives at the historic market and nestled within the passageways in the city centre. You will find a cinema, bowling alley, a nightclub and various live performances at the Cambridge Leisure Park, with further entertainment options at the Corn Exchange, Arts Theatre and the ADC Theatre. Further information can be found on the Visit Cambridge website.

If you prefer the faster pace of life, London is a 45 minute train journey away. For those travelling from overseas, Stansted Airport is just 45 minutes away and Heathrow Airport under 2 hours away. The University is a short distance from a host of other attractions such as Ely Cathedral, Newmarket Races and various wildlife parks and stately homes. Cambridge is also within easy reach of the beautiful Broads and coastlines of Norfolk and Suffolk.

Relocation Support

The University recognises the importance of helping individuals to move and settle into a new area. We provide support and guidance to those relocating internationally or domestically to take up a post at the University of Cambridge, liaising with other University offices and selected partners to ensure comprehensive relocation support is available. This includes: accommodation, childcare, schools, banking, immigration and transport. If you would like further information, please visit https://www.accommodation.cam.ac.uk/Reloc ationService/. The Shared Equity Scheme and the Reimbursement of Relocation Expenses Scheme provide financial assistance to qualifying new members of staff with the costs of relocating to Cambridge.

Accommodation Service

The University Accommodation Service helps staff, students and visiting scholars who are affiliated to the University in their search for suitable accommodation in Cambridge. The dedicated accommodation team can provide access to a wide range of University-owned furnished and unfurnished properties, and has a database of private sector accommodation available for short and long-term lets. For further information and to register with this free service please visit https://www.accommodation.cam.ac.uk/

BARYON



What Cambridge can offer

We offer a comprehensive reward package to attract, motivate and retain high performing staff at all levels and in all areas of work.

The University offers a wide range of competitive benefits, from family leave entitlement, to shopping and travel discount schemes. Our generous annual leave package contributes to the positive wellbeing of our University employees. Sabbatical leave enables academics to focus on research and scholarship, whilst still maintaining their full salary. The University also has a <u>career break scheme</u> for academic and academic-related staff, with additional flexible working policies for all other staff.



Pay and benefits

The University salary structure includes automatic service-related pay progression in many of its grades and an annual cost of living increase. In addition to this, employees are rewarded for outstanding contribution through a number of regular pay progression schemes. The University offers attractive pensions schemes for employees, with an additional benefit of a salary exchange arrangement providing tax and national insurance savings.



The University offers employees a wide range of competitive benefits, known as CAMbens. CAMbens offers something for everyone across a range of categories, including:

- Financial Benefits, including shopping discounts (both local and national) and a Payroll Giving scheme;
- Relocation and Accommodation Benefits, including relocation assistance and interestfree Rental Deposit Loans;
- Travel Benefits, including Cycle to Work, discounts on train season tickets and interest-free Travel to Work loans;
- Family Friendly and Lifestyle Benefits, including support with childcare and family friendly policies;
- Health and Wellbeing Benefits, including a University Staff Counselling Service, discounts at the University Sports Centre, and other local gyms, and healthcare schemes.



What Cambridge can offer

Family-friendly policies

The University recognises the importance of supporting its staff. We have a range of family-friendly policies to aid employees' work-life balance including a generous maternity, adoption and shared parental leave entitlement of 18 weeks full pay, and paid emergency leave for parents and carers.

Other family-friendly support includes:

Our highly regarded workplace nurseries, a childcare salary exchange scheme and a high quality holiday Playscheme may be available to help support University employees with caring responsibilities (subject to demand and qualifying criteria). Further childcare information can be found here:

https://www.childcare.admin.cam.ac.uk/

The Newcomers and Visiting Scholars Group is an organisation within the University run by volunteers whose aim is to help newly arrived wives, husbands, partners and families of Visiting Scholars and members of the University to settle in Cambridge and give them an opportunity to meet local people. The Postdoc Academy supports the postdoctoral community within Cambridge. Further details are available here: https://www.postdocacademy.cam.ac.uk/



Your wellbeing

The University's Sport Centre, Counselling Services and Occupational Health are just some of the support services available to University employees to promote their physical and mental wellbeing. The University delivers The Festival of Wellbeing annually, which is a programme of stimulating talks and activities, which aim to promote wellbeing and good mental and physical health. The University also hosts the Cambridge Festival, which is a great opportunity to get your first taste of public engagement, through volunteering, supporting hands-on activities or proposing a talk.

Development opportunities

We support new employees to settle in through various activities as well as supporting their professional and career development on an ongoing basis. Our Personal and Professional Development (PPD) team provide development opportunities for all University employees, including face-to-face sessions, online learning modules and webinars. All employees also have unlimited access to LinkedIn Learning to support their development. Both new and existing employees can undertake funded Apprenticeships, which lead to a range of vocational and professional qualifications. We offer reduced staff fees for University of Cambridge graduate courses and the opportunity to attend lectures and seminars held by University departments and institutions. A range of University training providers also offer specialist learning and development in their own areas e.g. teaching and learning, digital literacy, finance, health and wellbeing, safety.

How to apply

Applications should be submitted online via the University of Cambridge jobs page www.jobs.cam.ac.uk by clicking "Apply online" in the job advert. You will need an email address to register for our online system.

