



Post Specification

Post Title:	Research Fellow x 2 - SFI AMBER Centre, CRANN Institute
Post Status:	Specific Purpose Contract
Research Group / Department / School:	Boland Research Group, Trinity College Dublin, the University of Dublin
Location:	SFI AMBER Centre, CRANN Institute Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
Reports to:	Professor John J Boland
Salary:	Appointment will be made using the Irish Universities Association (IUA) salary scale, "Post-Doctorate Researcher", point 5 [€44,349]
Hours of Work:	Full Time
Closing Date:	12 Noon (Irish Standard Time), 4 March 2022

Post Summary

Mitigating against the degradation of plastic materials

Environmental and health risks stemming from the degradation of plastics is one of the greatest challenges facing humanity today. This project involves an investigation of the mechanisms of plastic degradation and the development of strategies to prevent the release of microplastic and chemical additives under different environmental conditions. The objective is to evaluate the resilience of plastics in real-world conditions and to develop technologies to enable the manufacture of novel engineering solution. Each position will involve plastic processing (chemical treatments and physical coatings), environmental stress testing (heat, humidity, light), mechanical testing, metrology and optical characterisation (light scattering, Raman, FTIR).

CRANN (www.crann.tcd.ie), Ireland's flagship nano- and material institute with 4000 m² of ultra-modern clean room and laboratory space and state-of-the-art material processing facilities. The CRANN Institute has full range of deposition and processing facilities, including lithographic capabilities (UV, e-beam, focussed ion beam processing and sub-nm He ion microscopy), scanning probe AFM/STM systems, chemical synthesis and characterisation (Raman, FTIR, SEM, TEM) facilities.

Standard Duties and Responsibilities of the Post

The candidate will work within a team of researchers and will be expected to deliver on team and project goals. Duties will include data collection, analysis and presentation at group meetings, and collation of data and results for public publication, grant applications and project review.

Funding Information

These posts are funded through Science Foundation Ireland (SFI)

Person Specification

Qualifications

Applicants must have a PhD in either Physical Chemistry, Physics, Materials Science or Mechanical Engineering.

Knowledge & Experience (Essential & Desirable)

The candidate must have a good knowledge and experience of material processing and characterisation techniques. This includes solution processing, drop casting and film formation. Experience in the processing of polymer materials is desirable but not essential. Hands on experience with Raman and IR spectroscopy, atomic force microscopy and scanning electron microscopy is desirable. A knowledge of separations technologies (e.g., GC mass spectroscopy) is also desirable but not essential.

Skills & Competencies

Data analysis, statistical modelling and competency with standard graphic and image analysis software is essential.

Application Procedure

Applicants should submit must provide a curriculum vitae, a full academic transcript of all Bachelor level and postgraduate courses, a statement of research experience and interests, together with the complete contact information for three references.

(Including email addresses), to: -

Professor John J. Boland

jboland@tcd.ie

Further Information for Applicants

URL Link to Area	www.tcd.ie
URL Link to Human Resources	https://www.tcd.ie/hr/

Trinity College Dublin, the University of Dublin

Trinity is Ireland's leading university and is ranked 108th in the world (QS World University Rankings 2020). Founded in 1592, the University is steeped in history with a reputation for excellence in education, research and innovation.

Located on an iconic campus in the heart of Dublin's city centre, Trinity has 18,000 undergraduate and postgraduate students across our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences.

Trinity is ranked as the 17th most international university in the world (Times Higher Education Rankings 2020) and has students and staff from over 120 countries.

The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success. Trinity has developed 19 broad-based multidisciplinary research themes that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. Trinity is also home to 5 leading flagship research institutes:

- Trinity Biomedical Sciences Institute (TBSI)
- Trinity College Institute of Neuroscience (TCIN)
- Trinity Translational Medical Institute (TTMI)
- Trinity Long Room Hub Arts and Humanities Research Institute (TLRH)
- Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

Trinity is the top-ranked European university for producing entrepreneurs for the past five successive years and Europe's only representative in the world's top-50 universities (Pitchbook Universities Report).

Trinity is home to the famous Old Library and to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps and early printed material. The Trinity Library is a legal deposit library, granting the University the right to claim a copy of

every book published in Ireland and the UK. At present, the Library's holdings span approximately 6.5 million printed items, 400,000 e-books and 150,000 e-journals. With over 120,000 alumni, Trinity's tradition of independent intellectual inquiry has produced some of the world's finest, most original minds including the writers Oscar Wilde and Samuel Beckett (Nobel laureates), the mathematician William Rowan Hamilton and the physicist Ernest Walton (Nobel laureate), the political thinker Edmund Burke, and the former President of Ireland Mary Robinson. This tradition finds expression today in a campus culture of scholarship, innovation, creativity, entrepreneurship and dedication to societal reform.

Rankings

Trinity is the top ranked university in Ireland and ranked 108th in the world (QS World University Rankings 2020). Trinity ranks in the top 50 in the world on 4 subjects and in the top 100 in 18 subjects (QS World University Rankings by Subject 2020). Full details are available at: www.tcd.ie/research/about/rankings.

The Selection Process in Trinity

The Selection Committee (Interview Panel) may include members of the Academic and Administrative community together with External Assessor(s) who are expert in the area. Applications will be acknowledged by email. If you do not receive confirmation of receipt within 1 day of submitting your application online, please contact the named Recruitment Partner on the job specification immediately and prior to the closing date/time.

Given the degree of co-ordination and planning to have a Selection Committee available on the specified date, the University regrets that it may not be in a position to offer alternate selection dates. Where candidates are unavailable, reserves may be drawn from a shortlist. Outcomes of interviews are notified in writing to candidates and are issued no later than 5 working days following the selection day.

In some instances the Selection Committee may avail of telephone or video conferencing. The University's selection methods may consist of any or all of the following: Interviews, Presentations, Psychometric Testing, References and Situational Exercises.

It is the policy of the University to conduct pre-employment medical screening/full pre-employment medicals. Information supplied by candidates in their application (Cover Letter and CV) will be used to shortlist for interview.

Applications from non-EEA citizens are welcomed. However, eligibility is determined by the Department of Business, Enterprise and Innovation and further information on the Highly Skills Eligible Occupations List is set out in Schedule 3 of the Regulations <https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Highly-Skilled-Eligible-Occupations-List/> and the Ineligible Categories of Employment are set out in Schedule 4 of the Regulations <https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Ineligible-Categories-of-Employment/> . Non-EEA candidates should note that the onus is on them to secure a visa to travel to Ireland prior to interview. Non-EEA candidates should also be aware that even if successful at interview, an appointment to the post is contingent on the securing of an employment permit.

Equal Opportunities Policy

Trinity is an equal opportunities employer and is committed to employment policies, procedures and practices which do not discriminate on grounds such as gender, civil status, family status, age, disability, race, religious belief, sexual orientation or membership of the travelling community. On that basis we encourage and welcome talented people from all backgrounds to join our staff community. Trinity's Diversity Statement can be viewed in full at <https://www.tcd.ie/diversity-inclusion/diversity-statement>.

Pension Entitlements

This is a pensionable position and the provisions of the Public Service Superannuation (Miscellaneous Provisions) Act 2004 will apply in relation to retirement age for pension purposes. Details of the relevant Pension Scheme will be provided to the successful applicant.

Applicants should note that they will be required to complete a Pre-Employment Declaration to confirm whether or not they have previously availed of an Irish Public Service Scheme of incentivised early retirement or enhanced redundancy payment. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Irish Public Service employment.

Applicants formerly employed by the Irish Public Service that may previously have availed of an Irish Public Service Scheme of Incentivised early retirement or enhanced redundancy payment should ensure that they are not precluded from re-engagement in the Irish Public Service under the terms of such Schemes. Such queries should be directed to an applicant's former Irish Public Service Employer in the first instance.

Application Procedure

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Applicants should submit a full Curriculum Vitae (see above), a full academic transcript of all Bachelor level and postgraduate courses, a statement of research experience and interests, together with the complete contact information for three references.

(Including email addresses), to: -

John J Boland

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universityvacancies.com

