



Post Specification	Research Assistant
Post Title:	https://www.tcd.ie/hr/assets/pdf/Academic_title.pdf
Post Status:	1 year Fixed-term Contract or Specific Purpose Contract – Full-time –
Research Group / Department / School:	Polymeric Materials & NanoComposites (PMNC) Group, AMBER/School of Chemistry, Trinity College Dublin, the University of Dublin
Location:	School of Chemistry and AMBER, Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
Reports to:	Prof. Ramesh Babu
Salary:	Appointment will be made on the point 1-2 of the IUA Research Assistant scale per annum at a point in line with Government Pay Policy, appointment will be made no higher than point
Hours of Work:	40
Closing Date:	12 Noon (Irish standard time) 14 th Feb 2020 (or until filled).

Post Summary

Background

Applications are invited for the position of Research Assistant with Polymeric Materials and Nanocomposite (PMNC) group (<http://physics.tcd.ie/pmnc/>) at TCD, to work with multidisciplinary research team developing biodegradable polymer composites for packaging applications. This is an exciting opportunity to work on Environmental Protection Agency (EPA) Ireland funded project 'BioPost' whose aim is to develop sustainable environmentally friendly plastics to address the real world problems of current plastics. BioPost will focus on using commercially available and indigenous novel biodegradable polymers and develop composites suitable for packaging applications and evaluate their end-of-life options; separation from mixed plastic waste, recyclability, compostability and biodegradability under standard industrial conditions.

Overview of the Role:

The successful candidate will be responsible for assisting in interdisciplinary research project on developing biodegradable polymer composites for packaging applications. This project will involve processing of biodegradable polymers using melt extrusion and characterisation of polymers for using various analytical techniques. Specifically, the candidate will be responsible for processing of polymers using lab scale and pilot scale extruders along with research team.

Standard Duties and Responsibilities of the Post

The core tasks are as follows:

- Use of Brabender melt mixer and 20/40 D twin-screw extruder for making the composites .
- Operating and maintenance of various polymer characterisation instruments.
- Assist and carry out research experiments as required.
- A flexible approach and willingness to undertake other duties as necessary
- Co-ordinating with various stake holders of the project

Funding Information

This position is funded through an EPA Ireland research programme under sustainability pillar

Person Specification

Qualifications

The post holder will:

- Hold honours degree in Science or Engineering, with specialisation in Material science or polymers.
- Have previous experience in polymer processing
- Be enthusiastic, adoptable and good team player

Knowledge & Experience (Essential & Desirable)

Essential

- Previous Laboratory experience
- Familiarity with polymers, polymer processing and characterisation.
- Knowledge of IT work environment and especially Microsoft office and use of Origin, Excel, Microsoft word, PowerPoint, etc.
- Excellent written and oral proficiency in English (essential)
- Excellent record keeping, communication and written Skills.

Desirable

- Experience in polymer melt mixing of niche additives would be an advantage.
- Experience of working with industrial collaborators.
- Knowledge of polymer characterisation.

Skills & Competencies

Given the multidisciplinary nature of the project, we do not expect that applicants will necessarily have all the skills required for the project (training will be given) , however it is essential that applicant will have one or more skills mentioned below

- Polymer Processing using melt extrusion process.
- Handling of analytical instruments in the lab
- Characterisation of polymers using TGA, DSC, DMA, FT-IR, GPC, etc.

Further Information for Applicants

In order to assist the selection process, applicant should submit a Curriculum Vitae and a cover letter that specially address how the candidate skills and experience align with the criteria set out above. **Applicants should reference RA-BioPost in their application.**

URL Link to Area	www.tcd.ie
URL Link to Research Group	https://www.tcd.ie/Physics/research/groups/pmnc/
URL Link to Human Resources	https://www.tcd.ie/hr/

Send CV to babup@tcd.ie