

EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Technical and Quality Management

The European Space Agency is an equal opportunity employer
and encourages applications from women

POST

Materials and Processes Engineer in the Materials Space Evaluation and Radiation Effects Section, Materials and Components Technology Division, Product Assurance and Safety Department, [Directorate of Technical and Quality Management](#).

This post is classified in the A2/A4 grade band of the Coordinated Organisations' salary scale.

LOCATION

ESTEC, Noordwijk (The Netherlands).

DUTIES

The postholder will report to the Head of the Materials Space Evaluation and Radiation Effects Section and is responsible for providing technical support to ESA projects related to the utilisation of non-metallic materials in space applications. This includes the evaluation of general properties of materials, as well as the assessment of the different environmental effects on materials used in manned and unmanned space applications. In addition, the incumbent will be required to manage R&D contracts in their domain of competence.

Specific duties of the post include:

- ensuring materials and processes and sub-assemblies are compatible with mission requirements in terms of space and ground environmental effects (vacuum, temperature, contamination etc.) as well as storage and launcher requirements;
- developing and implementing new laboratory test methods and materials analysis techniques and procedures for the above with a focus on chemical and surface analysis;
- assessing novel (polymeric) materials, processes and technologies for future space applications, including advanced exploration missions. This includes analysing future mission requirements and preparing appropriate evaluation techniques;
- reviewing project documentation on non-metallic mechanical parts, materials and processes and participating in project meetings (reviews, NRB's, etc...). This includes co-ordinating failure analysis and resolution with the support of the laboratory;
- establishing specifications and procedures for the qualification of materials in compliance with ECSS and ISO 17025;

- coordinating and defining future technology requirements with ESA and industrial stakeholders;
- defining and managing technical activities for tasks to be performed by industry, e.g. in the frame of various technology programmes.

QUALIFICATIONS

Applicants for this post should have a higher university degree – preferably at PhD level – in polymer engineering, materials science, materials physics/chemistry or a related field, as well as several years of hands-on experience in materials evaluation. A solid background in techniques for chemical analysis of materials, such as GC/MS, FTIR, Raman, surface and near surface techniques, is highly desirable. Familiarity with ESA PA requirements, as well as relevant national and international standards for materials and processes, would be an asset.

Candidates should have good interpersonal skills with the ability to work effectively and cooperatively in a diverse and international team environment and to define and implement solutions in line with team objectives.

In addition, candidates should have excellent organisational, reporting and communication skills, as well as a proactive attitude towards solving problems and an interest in innovative technologies.

The working languages of the Agency are English and French. A good knowledge of one of these two languages is required. Knowledge of another member state language is an asset.

CLOSING DATE

The closing date for applications is **21 November 2012**.

Applications from external candidates for this post should preferably be made on-line at the ESA Web Site (www.esa.int/careers). Those unable to apply on-line should submit their CV to the Head of the Human Resources Division, ESTEC, Keplerlaan 1, 2201 AZ Noordwijk ZH (The Netherlands).

ESA staff members wishing to apply for this post should fill in the Internal Application Form and email it to Apply2ESTEC.

The Agency may require applicants to undergo selection tests.

Under ESA Regulations, the age limit for recruitment is 55. Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom and Canada.

Priority will be first given to internal candidates and secondly to external candidates from under-represented member states.

In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment.