

## **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 the 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 with storage and launcher requirements;
- developing and implementing new laboratory test methods and materials analysis techniques and procedures for the above with a focus on contamination and cleanliness analysis;
- providing contamination control engineering support to space projects, including developing and analysing cleanliness requirements, contamination control plans, sampling and cleaning hardware procedures and their verification. This includes analysing future mission requirements and preparing appropriate evaluation techniques as well as contamination modelling;
- 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 stake holders;
- defining and managing technical activities for tasks to be performed by industry, e.g. in the framework of the various ESA technology programmes.

## QUALIFICATIONS

Applicants for this post should have a higher university degree – preferably at PhD level – in materials engineering and science, materials physics/chemistry, or a related field, as well as several years of hands-on experience in cleanliness issues related to space hardware. A strong background in the analysis of materials related to cleanliness verification and contamination modelling is required. Familiarity with ESA Product Assurance (PA) requirements, as well as relevant national and international standards for materials and processes, would be an asset.

Candidates should have good interpersonal and communication skills with the ability to work effectively and cooperatively in a diverse and international multi-project and team environment and to define and implement solutions in line with team objectives and project deadlines. In addition, they should have good analytical, organisational and reporting 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 **18 July 2013**.

Applications from external candidates for this post should preferably be made [on-line](#) at the ESA Web Site ([www.esa.int/careers](http://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.

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**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, Poland, 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.**