

Researcher Excellence Grant (REG)

APPLICATIONS ARE INVITED – Excellent Researcher in Aerosol Measurement

ROLE OF THE REG-RESEARCHER: We welcome applications from researchers with a profound background knowledge of physical aerosol measurements collaborating with NMIs in the development of calibration procedures. The activities of the REG-Researcher are connected with workpackage 1 of ENV02 which deals with the generation of aerosols needed for the calibration of particle mobility analysis, the calibration of particle number concentration (CPC) and the evaluation of the CPC cut-off curves. The applicant's home organisation has to be capable of providing calibration facilities for CPCs to independently assess performance of novel CPCs and prototypes identified as candidate instruments for regulatory purposes of combustion particles.

RESEARCHER REQUIREMENTS: The REG-Researcher must have proven experience in the field of calibration and verification of instruments measuring physical aerosol properties in particular CPCs. At least four years of experience in international calibration and standardization procedures is necessary.

PROJECT LOCATION(S): The REG-Researcher must be based at a Home Organisation located in a Member State or country associated to the Seventh Framework Programme. Up to 30 % of the total REG duration may be spent at a Guestworking Organisation (an NMI or DI participating in the JRP, and located transnationally to the Home Organisation).

DURATION: 33 months duration. Earliest start date is September 2011; with completion before the JRP end date which is 31.05.2014

ALLOWANCES: The exact allowances for your situation can be found by using the "EMRP Researcher Grant Calculator" spreadsheet available at <http://www.emrponline.eu/call2010/stage3.html>. Typically a monthly salary allowance of 4525 € or 6783 € (dependent on experience), plus contributions to training, travel, consumables, and the Home Organisation's overheads. Additional allowances are available where a Guestworking Organisation is included in the application. Note that some allowances have a country correction applied.

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RELATED JRP (each REG is linked to a Joint Research Project of the EMRP)

PROJECT TITLE: ENV02 - Emerging requirements for measuring pollutants from automotive exhaust emissions

PROJECT DESCRIPTION: The Sixth Community Environment Action Programme adopted by Decision No 1600/2002/EC of the European Parliament and of the Council of July 22nd, 2002 establishes the need to reduce pollution to levels which minimise harmful effects on human health, paying particular attention to vulnerable members of the population and to the environment as a whole. Physical parameters of ultrafine particles, below or around 100 nm in diameter, such as soot particle number concentration and size distribution, are under consideration for future health-based legislation, and there are already monitoring networks that record data both because of the potential health effects of ultrafine particles and because of their role in broader atmospheric science such as climate change. In order to achieve an improvement in the quality of life for European citizens the identification, quantification and finally the regulation of the emission sources are mandatory. In this context, the reduction of vehicle emissions is one task to be targeted as part of an overall strategy. The pollution due to particles from automotive exhaust emissions is of particular significance, because modern engines with high-pressure injection emit predominantly fine and very fine particles. In order to ensure that emissions of ultrafine particulate pollutants (PM 0,1 µm and below) can be controlled, the European Commission has to be provided with the evidence base necessary to adopt a number-based approach to measure emissions of particulate pollutants in addition to the currently-used mass-based approach. The number-based approach to exhaust emission control of particles will draw on the results of the Particulate Measurement Programme (PMP) of the United Nations Economic Commission for Europe (UN/ECE) and will comply with the existing ambitious objectives for the environment.

The JRP will establish a sound metrological base for particle emissions in exhaust gases of diesel vehicles in Europe. This includes the establishment of a particle number concentration standard for soot particles. The aim is to provide calibration services for end users and industry. In particular, a metrological infrastructure for the calibration of measuring instruments for the type approval of Euro 5 and Euro 6 diesel vehicles such as light vans and passenger cars needs to be provided. Furthermore, a sound background will be developed for metrological validation of novel instrument types that can measure the soot particle concentrations in exhaust gases from diesel vehicles and their capability to be used for the regulatory periodic emission control of vehicles. <http://www.ptb.de/emrp/partemission.html>

The REG-Researcher will have the opportunity to work with and/or prepare joint papers with the following world-leading researchers: Dr. J. Schlatter (EJPD, METAS), Dr. A. Krasenbrink (JRC), Dr. M. Heinonen (MIKES) and Dr. Andreas Nowak (PTB).

APPLICATION

ADVERT REFERENCE: ENV02-REG01

CLOSING DATE: The closing date is 23:59 CET on Friday 6th May 2011

INTERVIEW DATES: If interviews are required they will take place between 27th May and 13th June 2011

APPLICATION: All applications must be submitted via www.emrponline.eu/apply.html

REG applications should be made jointly by the REG-Researcher and the Home Organisation. An application consists of a Research Schedule (a description of the work to be undertaken), CV, cover letter, and excel datasheet.

ELIGIBILITY: Full eligibility criteria are given here: www.emrponline.eu/edocs/eligibility.pdf. Typically; the REG-Researcher must have at least 4 years of relevant experience, and the right to work in the country of the Home Organisation; the Home Organisation must be located in an EU Member State or a country associated to the Seventh Framework Programme; the Guestworking Organisation (if included) must be an NMI or DI participating in the JRP, and be in a different country to the Home Organisation.

THE AIM OF EMRP RESEARCHER EXCELLENCE GRANTS

"To enlarge the number of organisations with capacities closely relating to metrology" within the EU Member States and FP7 associated countries. The EMRP provides REG-Researcher Excellence Grants (REGs) to support the involvement of high quality REG-Researchers and to open the JRPs to the best science.

* From: *Decision No 912/2009/EC*, Official Journal of the European Union, 30 September 2009, L257, p12 available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:257:0012:0025:EN:PDF>