**ITN Early Stage Researcher PhD position in environmental Hg redox chemistry at IJS, Slovenia.**

We are looking to fill a final ESR2 PhD position **»New experimental constraints on atmospheric Hg red-ox reactions«**of the newly funded EU Innovative Training Network 'GMOS-Train': <https://www.gmos-train.eu/>.

The PhD student will make experimental studies of Hg oxidation and reduction in the ocean-atmosphere system, including marine, atmospheric waters, aerosols and gas phase.

We are looking for a student with an MSc degree (or equivalent) in atmospheric, marine, geo-, environmental or physical chemistry; experience with Hg cycling, photochemistry, or experimental chemistry are considered a plus.

GMOS-Train offers a competitive salary, an exceptional research & training environment with 15 PhD students, 2x per year training events in science and soft skills, up to 6 months stay at international universities.

The student will be supervised by Prof. Milena Horvat at Jožef Stefan Institute (Slovenia), and co-supervised by Prof. Aurelien Dommergue at UGA, and Dr. Jeroen Sonke at CNRS (both in France)

**Objectives:**

The main objective is to understand aqueous Hg red-ox mechanisms and rates from an experimental perspective. This includes the Hg red-ox behaviour of Hg species in marine waters, atmospheric waters and in aerosols, in order to better understand deposition of oxidised fractions of Hg and re-emission of volatile inorganic Hg species, and the two-way flux of Hg species between oceans/atmosphere and land/atmosphere.  Close collaboration with ESR1, and ESRs 4, 5, 9, 10, 12, 14, 15

**Expected Results:**

(i) Experimental kinetic  rate constants for reduction reactions in the aqueous phase for Hg(II) complexes in seawater, rainwater, cloud water, aerosols , and of GOM in the gas phase under different wavelength regions (using solar simulator) (ii) validation of laboratory experiments with complementary field based experiments, and (iii) mechanistic understanding of photochemical reactions from the Hg stable isotope composition of products and reactants and (iv) improved representation of aqueous and gaseous redox processes in 3D regional and global Hg models (3 papers).

**Planned secondments:**

CNRS (J. Sonke) UGA (A. Dommergue) 2 months, photochemistry mechanisms studied by Hg stable isotope composition of products and reactants, Harvard (E. Sunderland), 1 month, training on modelling of biogeochemical cycling of Hg in different environmental compartments; HZG (C. Schrum, J. Bieser), 1 month, incorporation of new kinetic data into regional and global models, joint collaboration with ESR14; joint publication.

Applications should be sent to: info@gmos-train.eu

Deadline for application: May 4, 2020

**ADDITIONAL INFORMATION:**

**Benefits**

The selected candidate will be employed with a fulltime contract. The salary follows the Marie Curie-Skłodowska ITN funding Scheme. The researcher is hired under an employment contract and benefits from a monthly living allowance, social security cover, plus a mobility and family allowance.

A career development plan will be prepared for each fellow in accordance with his/her supervisor and will include training, planned secondments and outreach activities in partner laboratories of the network. The ESR fellow is supposed to complete their PhD thesis by the end of the 3rd year of their employment. For more information please visit the Marie Curie-Skłodowska website and GMOS-Train website.

**Eligibility criteria**

        The call is open to early stage researchers who possess a Master’s Degree (or University Degree with a course duration of at least 5 years) in atmospheric, marine, geo-, environmental or physical chemistry; experience with Hg cycling, photochemistry, or experimental chemistry are considered a plus;

        who have not carried out research activity after their Master’s Degree for more that 4 years;

        who, in the last three years, have not carried out their main activity (work, research, study) for more that 12 months or resided in Slovenia;

        who have a scientific and academic CV suitable for the envisaged research activity;

        Candidates must not have been awarded a PhD or equivalent Doctorate title;

        Candidates must enroll and be willing to be awarded a Doctorate (PhD) in The Jožef Stefan International Postgraduate School (IPS), Ljubljana, Slovenia.

**Selection process**

The call is addressed only to candidates who in the last three years, have not carried out their main activity (work, research, study) or resided for more that 12 months in Slovenia; and who have not been carried out research activity after a Master’s Degree (or equivalent Degree) by more that 4 years.

The evaluation criteria are determined by the ESR Selection Committee, who will consider:

        Master’s Degree Marks;

        Publications and other research output;

        Specialization Diploma and certificate of attendance to post-graduate specialization courses;

        Other qualifications such as fellowships, scholarships or appointments in research institutes, research grants. The duration and dates of such activities need to be documented;

        Particular relevance will be given to experience (before of after the Master’sDegree) in the field of atmospheric, marine, geo-, environmental or physical chemistry; experience with Hg cycling, photochemistry, or experimental chemistry are considered a plus;

        Interviews.

ORGANISATION/COMPANY: Jožef Stefan Institute

RESEARCH FIELD: Environmental science

RESEARCHER PROFILE: First Stage Researcher (R1)

APPLICATION DEADLINE: 04/05/2020

LOCATION: Slovenia › Ljubljana

TYPE OF CONTRACT: Temporary

JOB STATUS: Full-time

HOURS PER WEEK: 40

EU RESEARCH FRAMEWORK PROGRAMME: H2020 / Marie Skłodowska-Curie Actions

MARIE CURIE GRANT AGREEMENT NUMBER: 860497