



Job vacancy - Post-doc position for candidates having a Ph.D. degree.

Location: Department of Mathematics and Applications "Renato Caccioppoli", University of Napoli Federico II (UNINA), Napoli, Italy.

Position: Postdoctoral researcher

Number of positions: 1.

Call open: 07-10-2020

Call close: 27-10-2020

Description: The position requested is within the CEOMED project. The aim of the research is to develop a mathematical model which simulates the dynamics of trace elements (Fe, Ni and Co) in anaerobic environments where a consortium of anaerobic microorganisms produce methane from organic matter (anaerobic digestion process). The model will incorporate both biochemical and physicochemical processes and will take into account:

- the effect of physicochemical processes such as adsorption, complexation and precipitation/dissolution of trace elements on microbial kinetics of methane production in an anaerobic environment;
- the dose response effect of trace elements on anaerobic kinetics;
- thermodynamic parameters (solubility product, stability constants for complexes and adsorption) to predict the dynamic fate of trace elements.

Requirements: The candidate must have a Ph.D. degree in Environmental technologies or equivalent disciplines. He/she must have a previous experience of at least 3 years on mathematical modelling of biological and biochemical processes. Preferably, his/her M.Sc. and Ph.D theses must have been focused on subjects similar to those of this job offer.

Annual gross salary: 25.768,75 €

Contract time: 12 months

Next steps to apply: The call will remain open until 27/10/2020. The call is available on UNINA website:

http://www.unina.it/documents/11958/22691823/MA_Bando_AR_04_2020_27_Ott.pdf/70d0f5d7-6056-49fd-be01-77baa2344600. When the call closes, the candidates will be contacted and in a period of 5 days they will be invited for an interview in front of a committee of three members of the Department of Mathematics and Applications "Renato Caccioppoli". The final ranking will be afterwards posted on the UNINA portal and the selected person will sign the contract around December 1th.

Signature: (From the responsible)