

Marie Curie France Region (MCFR) post-doc vacancy
university of Le Havre (LOMC)

The studies performed on the aquifers contamination or internal erosion of soils are dependant on mass transport models coupled with flow in porous media. The fluid pressure and velocity fields can change during the transport process depending on mass deposition and release kinetics. These processes need models which involve a strong coupling. The experimental results obtained on laboratory transport tests require the implementation of complex models of mass transport and flow with appropriate deposition-release kinetics. The research topics are related to mass transfer in porous media and aims to complete and improve the modelisation commonly used in detachment, transport and deposition processes of fine particles.

The candidate must be practiced with numerical modelisation of flow in porous media and interaction soil-fluid. He will be contributing to improve the classical used models by introducing especially the coupling between mass transport and flow and developing the more appropriate deposition and release kinetics models. It will be also appreciated a research profile focused on the physical and chemical aspects of reactive transport of extensive quantities such as fine particles. The project associated with this post-doc position available in our group is aimed to improve the models devoted to the mass transfer and groundwater pollution.

Duration: 12 months (from october 2011)

Contact: ahmed.benamar@univ-lehavre.fr

Deadline: August 10

http://www.mcfr.cpu.fr/Home-page.1.0.html?&no_cache=1