

Empa is a materials science and technology research institution of the ETH domain. For our research activities in collaboration with national and international partners dealing with gas exploration, rad-waste disposal and CO₂ sequestration, we have an open position for a

Scientific assistant for multi-scale pore structure analysis

The work will focus mainly on the quantitative 2D and 3D characterization of porous bentonite and opalinus clay with and without the effect of fluids from engineered cementitious layers (clogging, carbonation). The study includes the following methodologies:

- Electron microscopy (SEM, FIB-tomography, cryo-preparation, TEM, EDX)
- Image analysis (2D and 3D)
- Experimental pore characterization (BET, mercury porosimetry)

In interdisciplinary collaborations, these results are used for the development of multi-scale models related to transport (gas, fluid, dissolved species) and associated poromechanics.

The ideal candidate with a Masters degree (e.g. in earth or materials sciences) has a strong background in microstructural analysis. Your working attitude is precise, scientific and output oriented. In addition, you are interested in the simulation of physico-chemical processes. The position, which will be based on annual contracts, is immediately available.

Please send your application, CV and list of publications, to Mrs. Tülhan Kuru. For further information please contact Dr. Lorenz Holzer, laboratory for high performance ceramics, Phone +41 (0)44 823 44 90 or Lorenz.holzer@empa.ch.

application to

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