

# A Discussion of the Accuracy of Physical Parameter Measurements for Rock Specimens

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Laboratory permeability and diffusion tests on representative rock specimens taken from a candidate site for geological disposal of radioactive waste are of fundamental necessity. The test results, however, may contain significant errors if routine methods are applied. In addition, physical parameters of a rock are sensitive to many kinds of factors including rock type, stress condition and so on. Taking laboratory pulse-permeability and through-diffusion tests as examples, this presentation indicates some potential factors which may cause significant errors in laboratory measurements. Theoretical evaluations of the two test methods are also performed based on rigorous theoretical solutions to individual laboratory techniques.