The Measurement of Diffusion Length of Demi Water by Neutron Activation of Foils vs. Helium-3 Neutron Detector

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Abstract. The diffusion length L of thermal neutrons has been measured in demi water at room temperature using an PuBe source. The brief theory is outlined, and the results of neutron activation analysis are compared with a first measurement performed by Helium-3 neutron detector. The efforts made are the part of the complex approach aiming to validate nowadays computational tools and methods with measured parameters.