

## THE MEASUREMENT OF THE ABSOLUTE NEUTRON FLUX

We have measured the flux of fast neutrons at 4.6 MeV. A twin gridded ionization chamber and back to back  $^{238}\text{U}$  two samples were employed. Experiments were performed at the Van de Graaff accelerator of the Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Dubna, Russia. Fast neutrons were produced through the  $\text{D(d,n)}^3\text{He}$  reaction by using a deuterium gas. Cross section at  $E_n=4.6$  MeV of the  $^{238}\text{U}(\text{n},\text{f})$  reaction was used as the standard for absolute neutron flux determination. The abundance of the  $^{238}\text{U}$  isotope in the sample is 99.999%. The working gas of the ionization chamber was  $\text{Ar}+3\%\text{CO}_2$ .

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