MODELING OF THE FAST NEUTRON SCATTERING EXPERIMENTS

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A Monte-Carlo computer program was created for calculations of scattering neutron time-of-flight spectra in case samples which may contain up to five isotopes and may have central hole. On the base of these calculations we obtained corrections which usually are introduced to the experimental cross sections and they are the result of the multiple scattering effects, neutron flux attenuation and the angular spread of neutrons incident on a cylindrical sample.