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**Data processing automatization for diagnostics of Budker Epithermal Neutron Source**

T. Bykov, D. Kasatov, Ya Kolesnikov, A. Koshkarev, A. Makarov, I. Shchudlo, E. Sokolova, S. Taskaev.

*Budker Institute of Nuclear Physics, 11 Lavrentiev ave., 630090 Novosibirsk, Russia*

*Novosibirsk State University, 2 Pirogov str., 630090 Novosibirsk, Russia*

*E-mail: timaisabrony@gmail.com*

Budker Institute of Nuclear Physics is developing an accelerator epithermal neutron source [1], which produces a neutron flux with density and energy suitable [2] for BNCT. For some diagnostics additional realtime data processing is required. The software for data processing of the OWS-30 wire scanner (D-Pace, Canada) was developed, which allows measuring the size of the negative hydrogen ion beam and its total current, which the native program does not allow. Using this program, the influence of space charge on the beam [3] and beam emittance [4] were measured. A software tool for processing data from a gamma spectrometer with a NaI scintillator was developed, which allows calculating the activity of the measured activation foils with energy and sensitivity calibrations [5]. For recent experiments with blistering on a copper or tantalum target [6], a program was developed to determine the size of blisters from a photograph and to plot a histogram of dimensions. Another program that allows estimation of the brightness changes of photos from the obtained fluence helps to determine the threshold of blistering. This work presents and discusses the details of the diagnostics automatization being developed.

Acknowledgments

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