Mock-up of detector unit of the upper vertical neutron camera with uranium for ITER [[1]](#footnote-1)\*)

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The Vertical Neutron Chamber (VNC) for the ITER will consist of two parts, each of them will contain six detector units, combined into sealed diagnostic modules, equipped with a service vacuum system and a water cooling system. The upper VNC will be installed in the upper port (UP) №18 and should be an integral part of the DSM of this port, the lower VNC is installed in the lower port (LP) №14.

This report demonstrates mock-ups of detector units manufactured at the BINP SB RAS. In 2022, the BINP SB RAS received from the ITER Center a fast neutron detection unit - a sealed radionuclide source Chamber КНТ 34-2 ВШЛК.418221.057 based on U-238. This source is integrated inside a sealed casing and welded. For carrying out such operations with radioactive sources, such as welding, 4 people were specially trained as category “A” personnel in accordance with НРБ-99/2009 СанПиН 2.6.1.2523-09.

1. \*) [abstracts of this report in Russian](http://www.fpl.gpi.ru/Zvenigorod/L/E/ru/JP-Taskaev.docx) [↑](#footnote-ref-1)