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PROJECT BECQUEREL AT PORTAL OF NUCLEAR KNOWLEDGE BELNET

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Since beginning of the XXI century the International Atomic Energy Agency (IAEA) gives big attention to the nuclear knowledge management (NKM), based on research and development as well as industrial applications of nuclear technologies. NKM by the IAEA involves the nuclear science in the educational process through creation and development of different educational networks and portals.

Belarusian Nuclear Education and Training Portal (BelNET https://belnet.by/) was created in 2016 by scientists of the Institute for Nuclear Problems of Belarusian State University (INP BSU) to implement NKM principles. Currently it is the only major portal of nuclear knowledge in Belarus with about 5000 records in the main NK fields including current news, glossaries, monographs, textbooks, preprints, materials of international conferences, analytical reviews, special laboratory works for students etc.

At the end of 2023, mutually beneficial cooperation between the Laboratory of analytical research of INP and the JINR Nuclotron BECQUEREL experiment began.

The purpose of this experiment is to study the clustering in light stable and radioactive nuclei in the relativistic approach with the method of nuclear track emulsion. The investigated events of interaction of relativistic nuclei including complex multiparticle states allow to understand whether it is possible in the laboratory to reproduce the conditions of nuclear matter corresponding to nuclear astrophysics. The BECQUEREL experiment team working at the JINR Laboratory of High Energy Physics named after V.I. Veksler and A.M. Baldin has its own site http://becquerel.jinr.ru/.

The portal BelNET now contains a large number of records devoted to the BECQUEREL experiment. These include review articles and works on the study of nuclear reactions during irradiation of a nuclear emulsion in beams of various relativistic isotopes. Materials can be found in the portal section "Basic science" (https://belnet.by/elib/?i=121) → "Relativistic nuclear physics" → "Study of relativistic fragmentation of nuclei using the nuclear photoemulsion method".

In this report, the scientific results of cooperation between portal BelNET and BECQUEREL experiment are presented and discussed.