DEVELOPMENT OF ACTIVE CORRELATION METHOD FROM THE VIEWPOINT OF 2018 YEAR COMMISSIONING OF SHE FACTORY OF FLNR (JINR)

Tsyganov Yu.S., Polyakov A.N., Voinov A.A., Shumeiko M.V.
Flerov Laboratory of Nuclear Reactions, Joint Institute for Nuclear Research, Dubna, Russia
E-mail: tyra@jinr.ru

The Dubna Gas-Filled Recoil Separator is the mostly advanced facility in the field of synthesis of superheavy nuclei. Namely with this facility new $Z = 114$ to 118 (Fl to Og) elements were discovered using ^{48}Ca intense beam. The experiments like Actinide target + ^{48}Ca → SHN + xn are under consideration from the viewpoint of original instruments and methods application. With a nearest future commissioning of SHE Factory (DC-280 super intense cyclotron) of FLNR (JINR) the experiment with ^{50}Ti projectiles at the new gas-filled recoil separator is planned in 2019. Stronger requirements to the detection system as well as to the active correlated method are under consideration [1–5].

1. Yu.S.Tsyganov *et al*. // Nucl. Instrum. Methods Phys. Res. A. 2004. V.525. P.213.
2. Yu.S.Tsyganov, A.N.Polyakov // Cybernetics and Physics.
3. Yu.S.Tsyganon // ЭЧАЯ. 2009. Т.40. №6. С.1564.
4. V.K.Utyonkov, N.T.Brewer *et al.* // Phys. Rev. C. 2015. V.92. 034609.
5. Yu.S.Tsyganov // Phys. Part. and Nucl. Lett. 2016. V.13. №.5. P.567.