

Referee Report on the Theme

“Commissioning of the ACCULINNA-2 fragment separator”

During the past three years, a tremendous effort was done at FLNR to design, install and test the new light ions fragment separator ACCULINNA-2. This ambitious project is now at the commissioning level after the successful campaign of preliminary measurements to evaluate the performances in relation to the design characteristics. The performances reached by ACCULINNA-2 coupled with the highly developed detecting stations set this facility as one of the world leader for the study of light exotic nuclei and open the possibility to perform studies on exotic nuclei not reachable with other facilities.

The experimental program foreseen for the year 2018 seems very well organized and exciting. The investigation of the beta-delayed alpha branch of ^{11}Be using optical time-projection chamber and the study of the ^7H and its $4n$ -decay in the reaction $^8\text{He}(d, ^3\text{He})^7\text{H}$ are two frontier studies that can now be accessible with this new facility.

In conclusion, given the successful and convincing completion of the commissioning phase, I recommend to fully support the experimental program for the year 2018 as proposed.

January 9, 2018

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