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A renewed dual hydrogen and deuterium polarized target at COSY in the PAX frame

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In the main frame of the experiment programs on COSY ring, more precise measurements on spin dependent cross sections for the spin filtering process (PAX experiment) and on the Time Reversal Invariance test at COSY (TRIC), required the upgrading of the gaseous internal polarized target and the whole system of it: the pABS (polarized atomic beam source), the cell (openable) and the diagnostics tools of the target itself - the TGA (Target Gas Analyzer) and the BRP (Breit-Rabi-Polarimeter).

In the presentation the whole upgrading of the system, for the fixed target, will be reported.

The target, in a fixed cell, was already commissioned for a preliminary test on TRIC experiment.

In the pABS the switching from H to D, without hardware change, is already implemented.

The monitoring and measuring vector and tensor polarization (the last only for D) by the BRP, will be performed thanks to a new Dual Cavity, already installed and now under test. And also, in order to gain longer lifetime of the stored beam, an openable cell has to be set up. We will report on the status of the apparatus for future plans.

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Session Classification: Targets

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