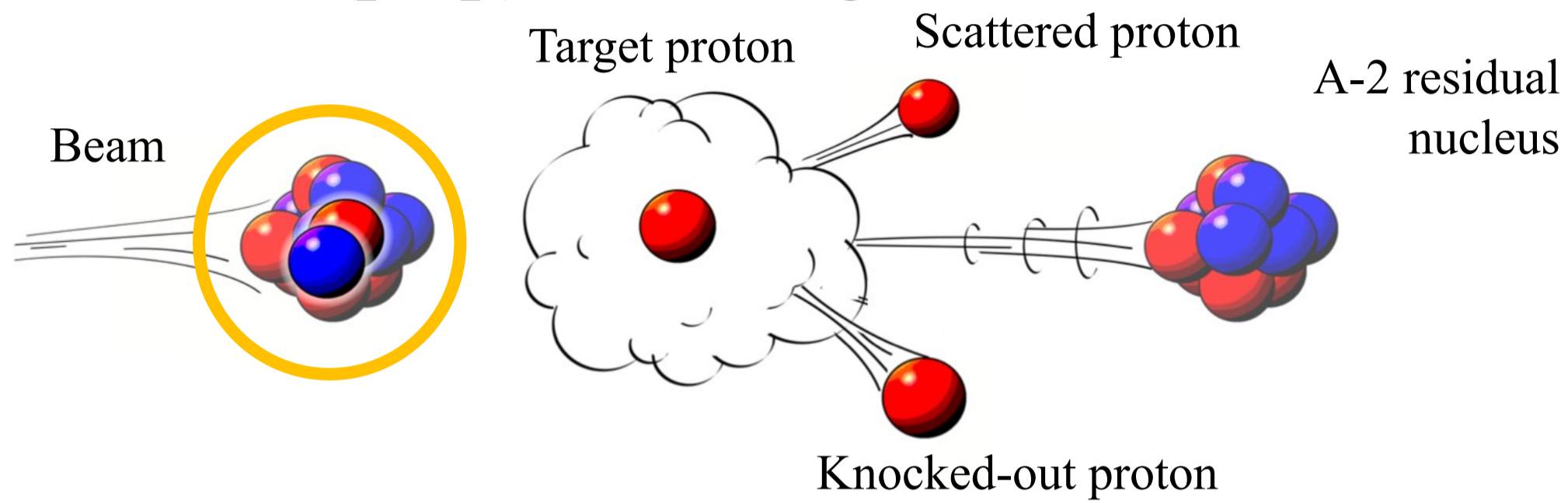




Dead Time Analysis for 2022 JINR SRC Experiment

Reaction

Quasi-free (p,2p) scattering in **inverse kinematics**



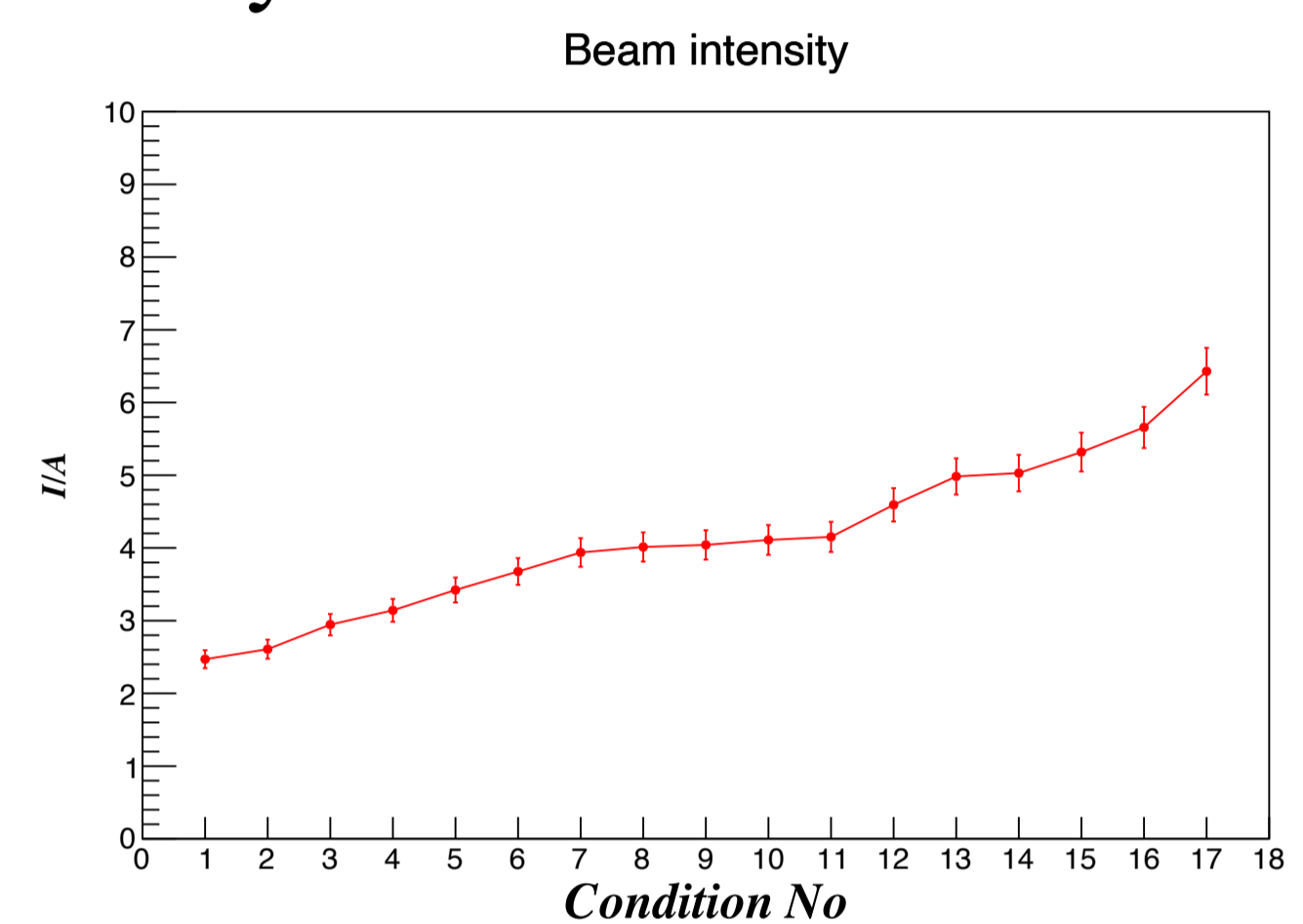
- Access to neutron-rich/exotic unstable nuclei (impossible with a fixed target)
- High cross section compared to e-scattering

Dead time analysis

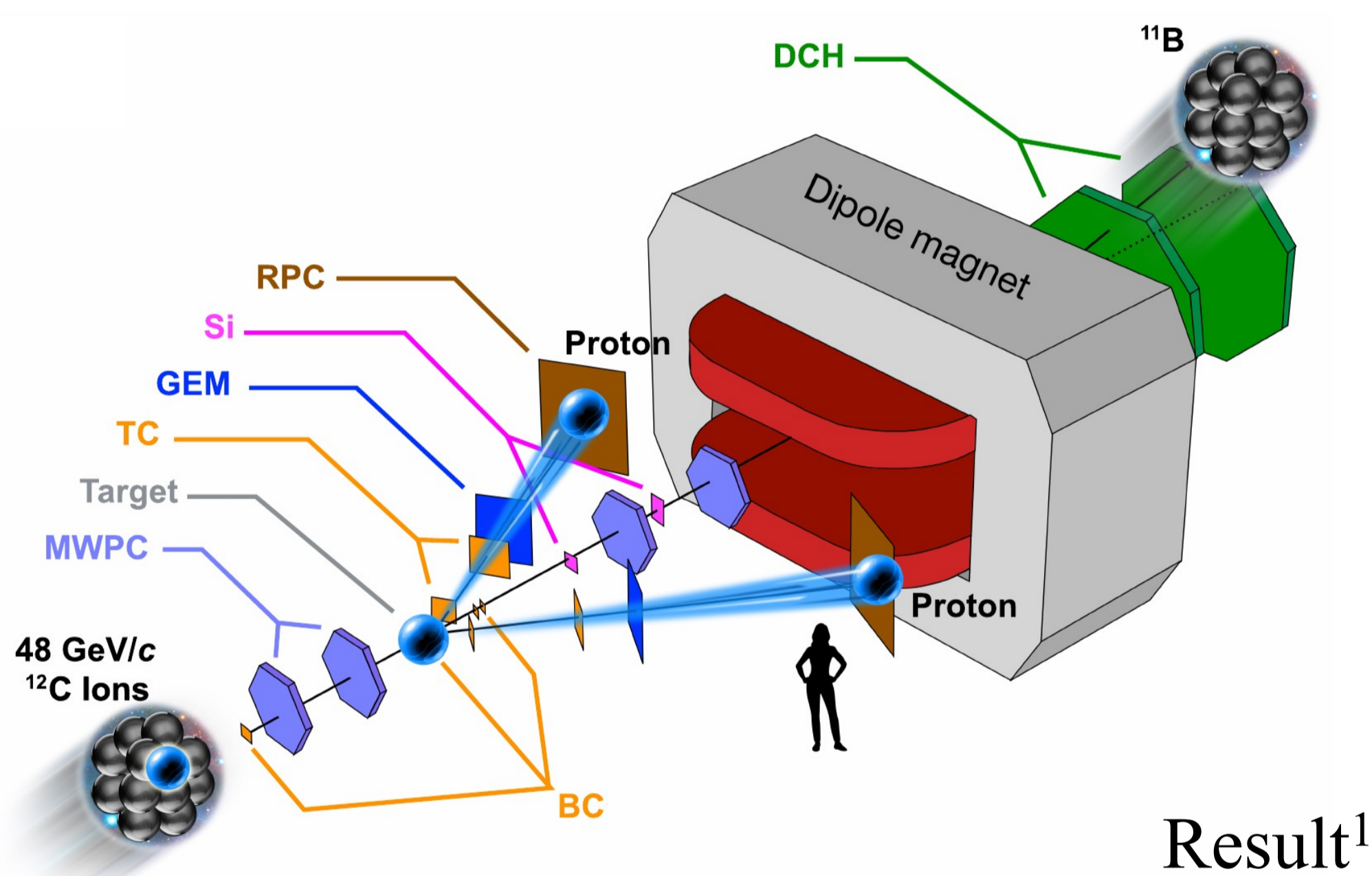
Extract exclusive $^{12}\text{C}(p,2p)^{11}\text{B}$ cross section:

- $N_{reaction}/N_{beam}$
- Detector efficiency correction
- Acceptance correction
- Dead time correction

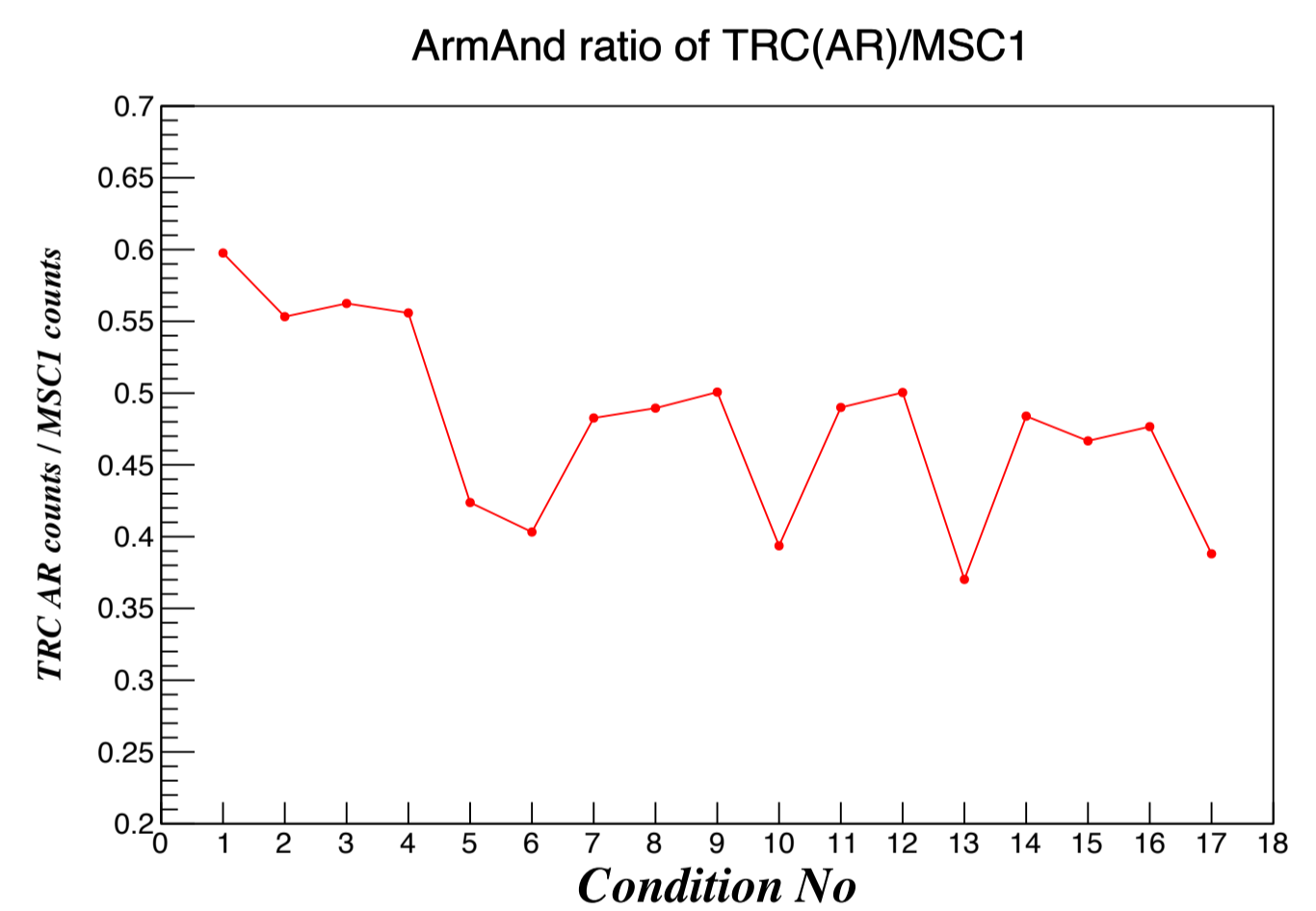
Beam intensity:



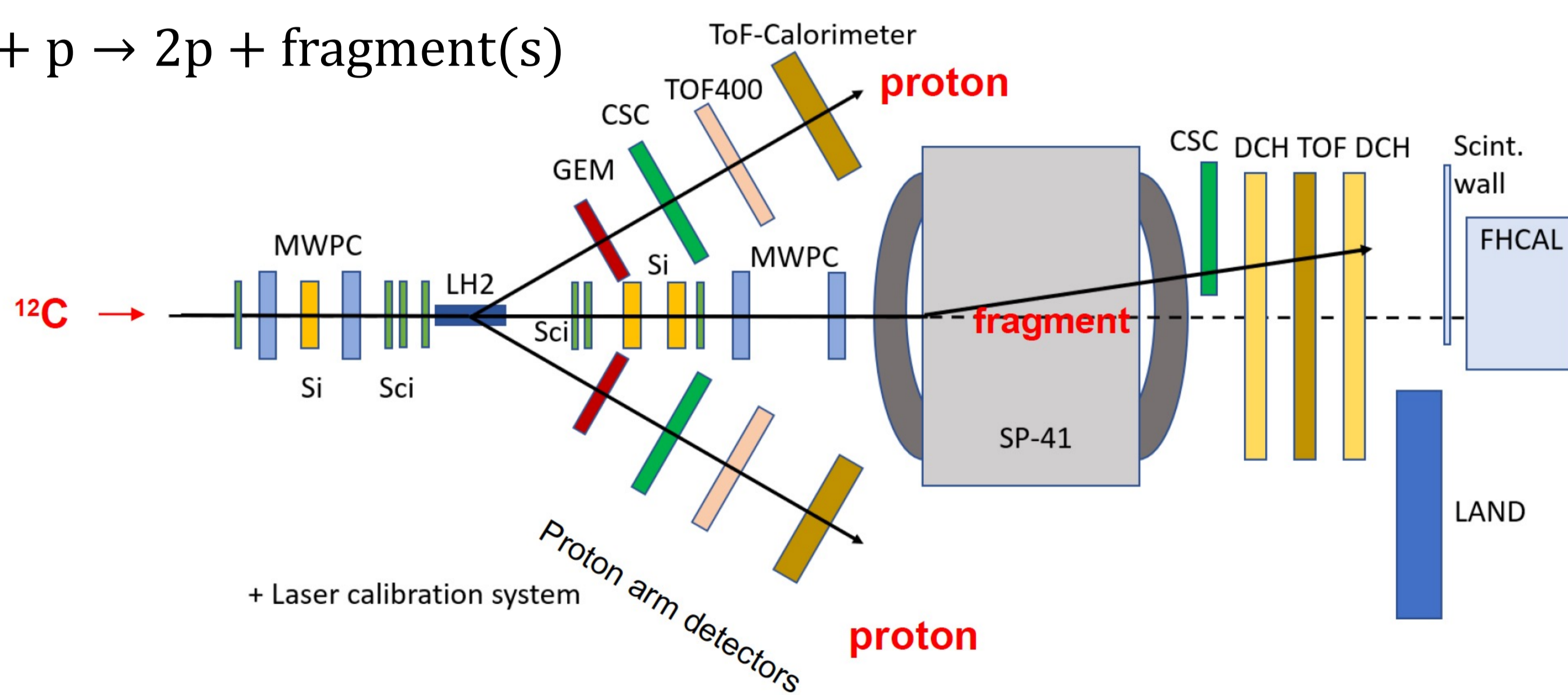
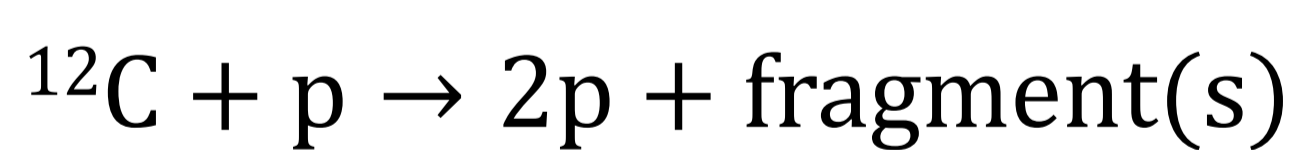
Previous experiment in 2018



Living time:



New experiment in 2022



References:

1. Patsyuk, M., et al. "Unperturbed inverse kinematics nucleon knockout measurements with a carbon beam." Nature Physics 17.6 (2021): 693-699.