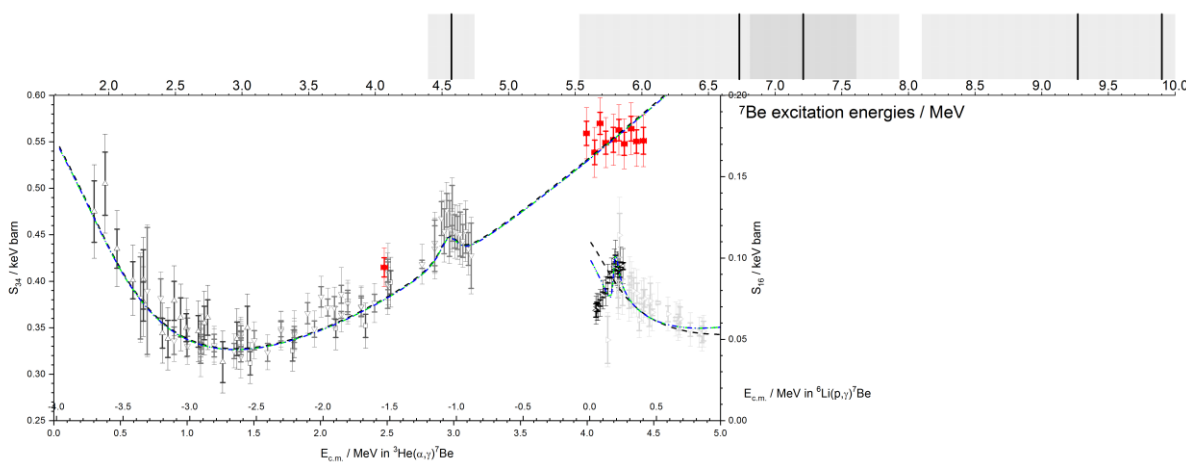


# Hydrogen burning reactions studied with activation @ Atomki, Hungary

## ${}^3\text{He}(\alpha,\gamma){}^7\text{Be}$

- Energy region never investigated before
- Around the  ${}^7\text{Be}$  proton separation threshold, already measured:  
T. Szücs et al, PRC **99**, 055804 (2019)
- Known  ${}^7\text{Be}$  levels from alpha and/or proton scattering
- Constrain level parameters



## ${}^{14}\text{N}(p,\gamma){}^{15}\text{O}$

- 2min half-life, cyclic activation
- Total cross section
- Resonances strengths already measured:  
Gy. Gyürky et al, PRC 100, 015805 (2019)
- Excitation function in a broad energy range with independent method

