

Constraints on key $^{17}\text{O}(\alpha,\gamma)^{21}\text{Ne}$ resonances and impact on the weak s process

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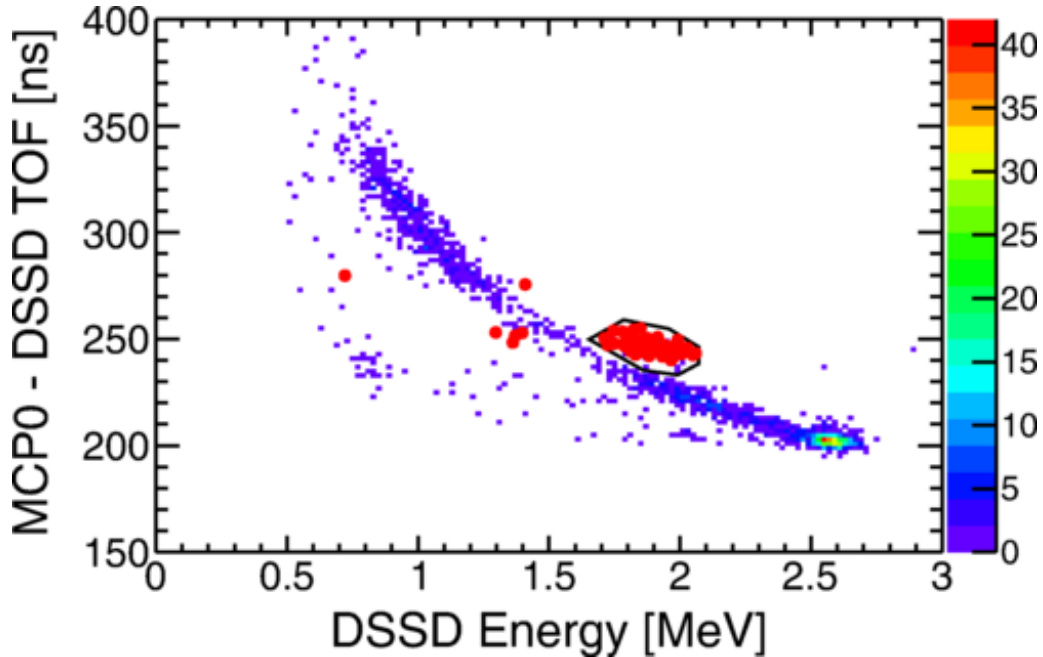


Fig. 1. MCP-DSSD time-of-flight against DSSD energy for one resonance in $^{17}\text{O}(\alpha,\gamma)$. The red circles show coincidence events within the separator time-of-flight window. The black line is the graphical cut around the ^{21}Ne recoils. The colour plot are all of the events.

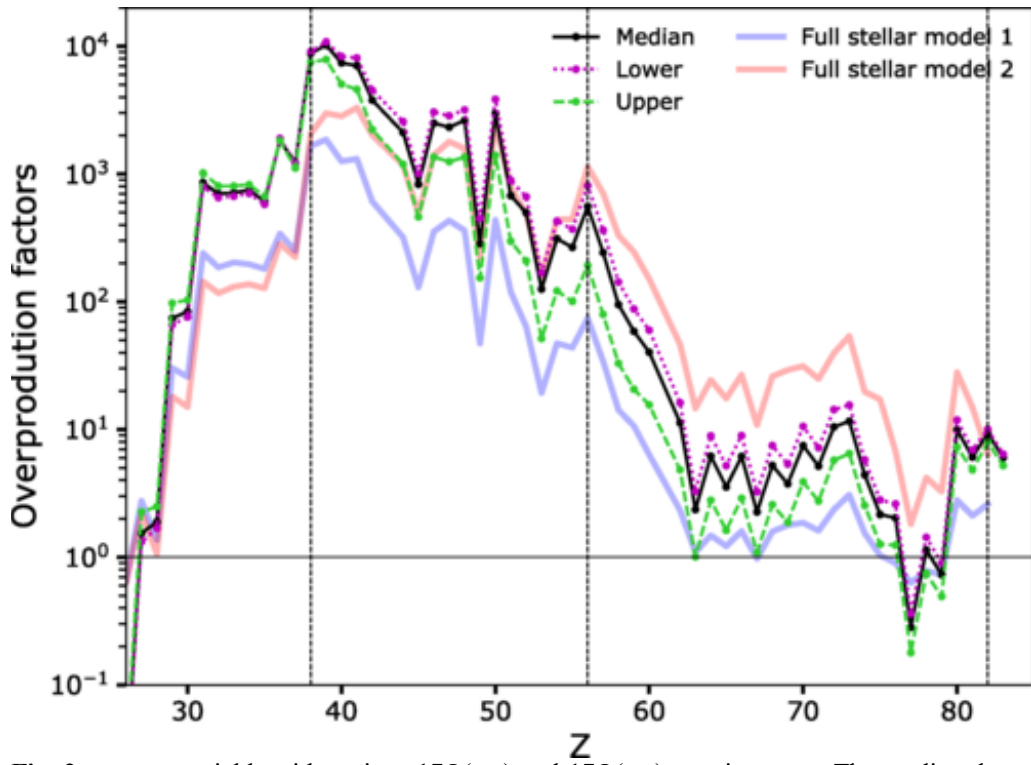


Fig. 2. s-process yields with various $^{17}\text{O}(a,g)$ and $^{17}\text{O}(a,n)$ reaction rates. The median, lower and upper curves show the s-process yields from the $^{17}\text{O}(a,g)$ reaction rates from the present works. The Full Stellar Model curves show the reaction rate using the $^{17}\text{O}(a,g)$ rate from Best *et al.*¹ or the Best rate divided by a factor of ten.