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0νββ Target Out Analysis for the SNO+ Experiment

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The SNO+ Experiment is a versatile multipurpose neutrino detector situated at SNOLAB, with the primary goal of searching for neutrinoless double beta decay (0νββ). After a successful operating phase as a water Cherenkov detector, the SNO+ target medium was switched to liquid scintillator to increase the light yield of the detector, thereby enabling a much richer physics programme.

In addition to ongoing measurements of reactor antineutrinos, solar neutrinos, geoneutrinos, supernova neutrinos, and other exotic phenomena, the SNO+ experiment is preparing for the deployment of tellurium within the scintillator, thereby enabling a 0νββ search. A major advantage of the experiment is the capability for backgrounds within the 0νββ region of interest to be well-understood prior to the addition of the tellurium (i.e. target out). This poster will discuss the target out analysis to be used for the upcoming 0νββ search phase of the SNO+ experiment.

Submitted on behalf of a Collaboration?

Yes

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