

The SNO+ Experiment

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The SNO+ liquid scintillator experiment, due to begin taking data over the next year, aims to probe a wide range of fundamental physics. One of the highest priorities for the project is a sensitive search for neutrinoless double beta decay, to be achieved by loading large quantities of ^{130}Te into the scintillator and taking advantage of a large, highly pure, self-shielded liquid volume. Preliminary estimates suggest that an initial loading of 0.3% natural tellurium could yield a sensitivity for Majorana masses near the top of the inverted hierarchy range. If successful, a further increase in loading by a factor of ten may allow the majority of the inverted hierarchy to be critically examined in the near future. The current status of SNO+ and potential advantages of the Te-loaded scintillator approach will be presented.

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