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The Design of SSNAP a Solenoid Spectrometer for Use with TwinSol OSCAR HALL, Univ of Notre Dame, TWINSOL TEAM — Nucleon transfer reactions can be used to elucidate many nuclear astrophysics processes. By carrying out and observing these reactions in a laboratory environment our understanding of these processes can be improved. The Solenoid Spectrometer for Nuclear AstroPhysics (SSNAP) is a new helical orbit spectrometer being designed at the University of Notre Dame. Designed around a strip of on-axis position sensitive silicon detectors along the length of the second TwinSol solenoid; SSNAP will be sensitive to the charged light ions produced in these reactions. Through the detection and measurement of these charged light ions the properties of the heavy residual nuclei can be understood. The current progress in the design and of simulations will be presented. This research was supported by the National Science Foundation.

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