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Commissioning of a Faraday cup for the Solenoid Spectrometer for Nuclear Astrophysics (SSNAP)[1] EMMANUEL GARCIA, University of Puerto Rico - Mayaguez, DAN BARDAYAN, JACOB ALLEN, DREW BLANKSTEIN, University of Notre Dame, FREDERICK BECCHETTI, University of Michigan, MATTHEW HALL, OSCAR HALL, JAMES KOLATA, PATRICK O'MALLEY, University of Notre Dame, JEFFREY BLACKMON, Louisiana State University, STEVE PAIN, Oak Ridge National Laboratory — The Solenoid Spectrometer for Nuclear Astrophysics (SSNAP) is a HELIOS-like helical orbit spectrometer being developed at the University of Notre Dame. Designed around position-sensitive silicon detectors set along the axis of the second TwinSol solenoid, it will improve our capacity to study nucleon transfer reactions. The study of nucleon transfer reactions gives us insight into many nucleosynthesis processes occurring in astrophysical events, such as novae bursts, neutron-star collisions, among others. SSNAP will provide quick and accurate measurements to many nuclear properties, such as nuclear cross sections, branching ratios, and nuclear spectroscopy. It will also provide easy particle identification by using Time-of-Flight measurements. A Faraday cup was commissioned as part of recent developments to SSNAP in order to normalize the data. This work focuses on the design requirements, production and testing of the Faraday cup.

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