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## Recent Work

### **Title**

Status of the SNS H- source and low-energy transport system

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Status of the SNS H<sup>-</sup> Ion Source and Low-Energy Transport System\*

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The ion source and Low-Energy Transport (LEBT) system that will provide H<sup>-</sup> ion beams to the Spallation Neutron Source (SNS)\*\* Front End and the accelerator chain have been developed into a mature unit that will satisfy the operational needs through the commissioning and early operating phases of SNS. The ion source was derived from the SSC ion source, and many of its original features have been improved to achieve reliable operation at 6% duty factor, producing beam currents in the 35-mA range and above. The LEBT utilizes purely electrostatic focusing and includes static beam-steering elements and a pre-chopper. This paper will discuss the latest design features of the ion source and LEBT, give performance data for the integrated system, and report on commissioning results obtained with the SNS RFQ accelerator. Perspectives for further improvements will be outlined in concluding remarks.

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