

New Evaporator Station for the Center for Accelerator Target Science

Tuesday, 15 November 2016 10:00 (30 minutes)

As part of an equipment grant provided by DOE NP for the Center for Accelerator Target Science (CATS) initiative, the procurement of a new, electron beam, high-vacuum deposition system from Angstrom Engineering was identified as a priority to insure reliable and continued availability of high-purity targets. The apparatus was designed to contain TWO electron beam guns; a standard 4-pocket 270° geometry source as well as an electron bombardment source. The acquisition of this new system will allow for the replacement of TWO outdated and aging vacuum evaporators. Also included is an additional thermal boat source, enhancing our capability within this deposition unit. Recommended specifications for this system included an automated, high-vacuum pumping station, a deposition chamber including a rotating and heated substrate holder for uniform coating capabilities and incorporating computer-controlled, state-of-the-art thin film technologies. Design specifications, enhanced capabilities and the necessary mechanical modifications for our target work will be discussed.

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