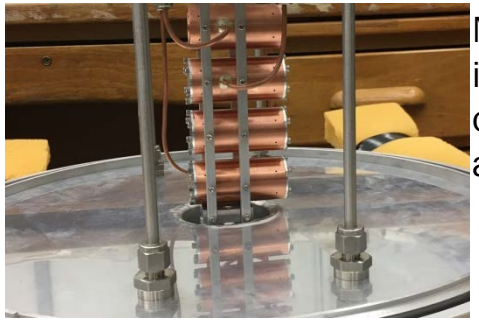
Recent improvements for exotic beam experiments at *TwinSol*

The Twin Solenoid (*TwinSol*) exotic beam separator was the first facility dedicated to exotic beam production in the U.S. Recent improvements will greatly enhance its ability to provide high-quality exotic beams for nuclear physics and astrophysics research.



New production gas targets have been doubled in length with a reduction in window thickness by 20%. A variable iris has been installed at the cross over. Secondary beam intensities will increase by a factor of 2 with an accompanying reduction in energy spread and contamination.

The second *TwinSol* magnet has been moved ~90cm downstream to produce a smaller beam focus on the other side of the shielding wall where experiments are performed.

A new penetration in the shielding wall to allow experiments to be performed in the adjoining room with greatly reduced backgrounds from the production target. Also visible is the new infrastructure (power, cooling water, compressed air) that has been recently installed.

P. O'Malley *et al.*, Nucl. Instrum. Meth. B **376**, 417 (2016).