

# Update from the Scintillating Bubble Chamber (SBC) Collaboration

*Friday, 31 March 2023 18:30 (15 minutes)*

Liquid-noble bubble chambers provide a unique opportunity to extend electron/nuclear-recoil discrimination to the  $O(100)$ -eV thresholds needed for a GeV-scale dark matter search, while maintaining scalability to the  $\sim$ ton-year exposures needed to explore the solar neutrino CEvNS fog. I will review what we currently know about the low-threshold performance of these devices and give a status update on SBC-LAr10: a 10-kg argon bubble chamber at Fermilab, built by the SBC Collaboration, that aims to calibrate the nuclear recoil detection threshold of the technique with 10-eV resolution at a target 100-eV threshold. I will also describe progress towards the SBC Collaboration's first dark matter search, featuring a low-background but functionally identical clone of SBC-LAr10.

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