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The charm of trap loss: sensitive probe of collisions and trap depth[1] KIRK W. MADISON, University of British Columbia, JAMES L. BOOTH, British Columbia Institute of Technology — More than just a nuisance, atom trap loss due to collisions with background gas provides a sensitive probe of both the collisional physics between the target and background species and the trap depth. We discuss recent work on a technique for the determination of the differential and total cross sections from trap loss measurements. We also discuss the use of such loss measurements for the determination of the trap depth - a particularly difficult quantity to measure in optical traps.

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