Abstract Submitted for the 4CF06 Meeting of The American Physical Society

Temperature dependence of absorption and emission spectra of Ba in solid Ar BRIAN MONG, Colorado State University — Detection of a single Ba daughter from extremely rare Xe-136 $\beta\beta$ decay is an essential part of the EXO (Enriched Xenon Observatory) project. At CSU we have been working on detection methods in both solid and liquid Xenon. This talk will cover the recent progress we have made on detection of Ba in solid Argon and Xenon. The absorption and fluorescence verses temperature in solid Ar and has been measured. Two Ba sites have been observed in solid Ar; site B recovers from annealing above 20K while site A does not, it converts to Site B. Recent progress with the spectroscopy of Ba and Ba+ in solid Xe will also be discussed.

Brian Mong Colorado State University

Date submitted: 11 Sep 2006 Electronic form version 1.4