

Abstract Submitted  
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**Lifetimes and Oscillator Strengths for Ultraviolet Transitions in Pb II**<sup>1</sup> N. HEIDARIAN, R.E. IRVING, University of Toledo, A.M. RITCHEY, University of Washington, S.R. FEDERMAN, D.G. ELLIS, S. CHENG, L.J. CURTIS, University of Toledo, W.A. FURMAN, Reed College — Interpreting astronomical observations of atomic ions requires knowledge of their oscillator strengths and transition rates. Also, in order to understand the atomic structure for these ions, experimental lifetimes are necessary to confirm theoretical predictions. We present the results of lifetime measurements taken with the Toledo Heavy-Ion Accelerator using beam-foil techniques on levels of astrophysical interest in Pb II producing lines of 1203.6 Å and 1433.9 Å ( $6s6p^2 \ ^2D_{3/2}$  and  $6s^26d \ ^2D_{3/2}$ , respectively). Oscillator strengths are derived from the lifetimes, and our experimental results will be compared with theoretical calculations obtained by others as well as astronomical observations. The measurements may guide us toward understanding the relativistic effects involved in these energy levels better.

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