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Lifetimes and Oscillator Strengths for Ultraviolet Transitions in Sn II[1] NEGAR HEIDARIAN, RICHARD IRVING, STEVEN FEDERMAN, DAVID ELLIS, SONG CHENG, LARRY CURTIS, University of Toledo — In order to understand the atomic structure for atomic ions, experimental lifetimes are necessary to confirm theoretical predictions. Also, interpreting astronomical observations of atomic ions requires knowledge of their oscillator strengths and transition rates. We present the results of lifetime measurements taken with the Toledo Heavy-Ion Accelerator using beam-foil techniques on levels of interest in Sn II producing lines at 1811.2 Å and 1699.4 Å ($5s5p^2\ \ ^2D_{5/2}$ and $5s5p^2\ \ ^2D_{3/2}$, respectively). Oscillator strengths are derived from the lifetimes, and our experimental results will be compared with our MCDHF calculations using the development version[2] of the GRASP2K package[3] as well as the latest calculations done by others.

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[2]P. Jönsson et al., The Computational Atomic Structure Group (2014)
[3]P. Jönsson et al., Comput. Phys. Commun. 184, 2197 (2013)

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