

Abstract Submitted
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Relativistic Configuration Interaction Lifetimes and Transition Probabilities for W II¹ DONALD R. BECK, MARWA H. ABDALMONEAM, Physics Department, Michigan Technological University — Lifetimes of the lowest 13, 30, 38, 40, and 35 levels of $2J=1, 3, 5, 7$ and 9 , respectively, odd parity have been computed. Comparisons with measured values² indicate improved agreement as compared with the semi-empirical values.³ With the inclusion of the FOTOS selected⁴ $5p \rightarrow 5d$ excitations, agreement between the velocity and length gauges is good. Small shifts are introduced for some nearby levels to represent the missing correlation effects, and it is shown that the sum of $1/\tau$ and Lande g -values are nearly conserved as calculation proceeds for such levels.

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²H. Nilsson et al, Eur. Phys. J. D49, 13 (2008) and references therein.

³Ibid.

⁴D. R. Beck, Phys. Scr. 71,447 (2005) for RCI methodology.

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