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**Relativistic many-body calculation of energies, multipole transition rates, and lifetimes of tungsten ions** U. I. SAFRONOVA, University of Nevada, Reno, M. S. SAFRONOVA, University of Delaware and JQI, NIST and the University of Maryland, N. NAKAMURA, The University of Electro-Communications, Japan — Atomic properties of Cd-like $W^{26+}$, In-like $W^{25+}$, and Sn-like $W^{24+}$ ions are evaluated using a relativistic CI+all-order approach that combines configuration interaction and the coupled-cluster methods. The energies, transition rates, and lifetimes of low-lying levels are calculated and compared with available theoretical and experimental values. The magnetic-dipole transition rates are calculated to determine the branching ratios and lifetimes for the $4f^3$ states in $W^{25+}$ and for the $4f^4$ in $W^{24+}$ ions. We also evaluated the atomic properties of these ions using the Hebrew University Lawrence Livermore Atomic (HULLAC) code and demonstrated higher accuracy of the wavelength values obtained using the CI+all-order approach.

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