Extended calculations of energies, transition rates, and lifetimes for F-like Kr XXVIII

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Highlights

- The excitation energies, lifetimes, wavelengths and E1, E2, M1 and M2 transition rates for the lowest 389 levels arising from the $(1s^2)2l^7$, $2l^6 3l'$, $2l^6 4l'$, and $2l^6 5l'$ configurations, and the results for the lowest 200 states belonging to the $(1s^2)2l^7$, $2l^6 3l'$ and $2l^6 4l'$ configurations in F-like Kr XXVIII are reported.
- The second-order many-body perturbation theory (MBPT) and multi-configuration Dirac-Hartree-Fock (MCDHF) methods are employed.
- Uncertainties for level energies, wavelengths, transition rates with a radiative branching ratio over 0.1% and lifetimes are mostly better than 0.005%, 0.05%, 10% and 2%, respectively.