Abstract Submitted
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**Atomic data for dielectronic satellite lines and dielectronic recombination into $Ne^{5+1}$** R. MANCINI, U.I. SAFRONOVA, University of Nevada, Reno — Energy levels, radiative transition probabilities, and autoionization rates for B-like neom $Ne^{5+}$ including $1s^22s^2nl$, $1s^22s2pnl$, and $1s^22p^2nl$ ($n$=2-11, $l = s, p, d, f, g, h, i, k$ ) states were calculated by multi-configurational Hartree-Fock method (Cowan code) and relativistic many-body perturbation theory method (RMBPT) code. Autoionizing levels above three thresholds ($1s^22s^2\ ^1S$, $1s^22s2p\ ^3P$, $1s^22s2p\ ^1P$) were considered. Branching ratios relative to the first threshold and intensity factor were calculated for satellites lines and dielectronic recombination rate coefficients for the excited 190 odd-parity and 198 even-parity states. The dielectronic recombination rate coefficients including $1s^22s^2nl$, $1s^22s2pnl$, and $1s^22p^2nl$ ($n$=2-11, $l = 0-7$) states were calculated. The contributions from the excited states higher than $n$=11 were estimated by extrapolation of all atomic characteristics to derive the total dielectronic recombination rate coefficient. The orbital angular momentum quantum number $l$ distribution of the rate coefficients shows a peak at $l$=5. The total dielectronic recombination rate coefficient was derived as a function of electron temperature. The dielectronic satellite lines were also obtained.

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