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R-matrix Calculations Along the F-like Iso-electronic Sequence
MICHAEL WITTHOEFT, ALLAN WHITEFORD, NIGEL BADNELL, University of Strathclyde — With the increased availability of parallel computers in recent years, it has become feasible to perform large-scale R-matrix electron-impact excitation calculations over iso-electronic sequences. We present a 195-level ICFT R-matrix calculation for the F-like sequence from Ne$^+$ to Kr$^{27+}$. The data from this, and future, sequences not only provide broad coverage of the periodic table for plasma modeling codes, but also allow for another means of determining the quality of the calculations as behaviors along the sequence are analyzed.

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