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Electron-impact ionization and excitation cross sections of C+ excited states JONATHAN PEARCE, STUART LOCH, MITCH PINDZOLA, CONNOR BALLANCE, Auburn University, ATOMIC PHYSICS GROUP AT AUBURN UNIVERSITY TEAM — We present new results of the electron-impact ionization and excitation of C+ excited states. We use both a Breit-Pauli and term resolved R-matrix with pseudostates method to compare with available experimental measurements and theoretical values. We extend previous calculations to include all terms in the n=4 shell and ionization from the $1s^22s2p^2$ configuration. Results are presented for the atomic structure, along with results for both collision strengths and effective collision strengths. The new results will be combined with existing data for the other charge states of C, and used to evaluate generalized collisional-radiative coefficients for the carbon iso-nuclear sequence.

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