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Satellite lines in the photoionization of ions; The Be isoelectronic sequence[1] W.-C. CHU, Georgia State University, Atlanta, GA and Kansas State University, Manhattan, KS, H.-L. ZHOU, S.T. MANSON, Georgia State University, Atlanta, GA — Partial photoionization cross sections for the ^{1}S ground state and the ^{3}P metastable state to various final states of Be-like ions have been calculated using the R-matrix method [1]. The relative strengths and the energy dependence of the partial cross sections are analyzed and their general behavior as a function of Z and energy are delineated. The partial cross sections display complex patterns as a function of energy, owing to interchannel coupling between strong and weak channels, and these patterns change smoothly as a function of Z. The ratios of the partial cross sections to the main line are found nearly constant of the photon energy if both are of the same angular momentum, and, at the higher energies, these ratios are explained well by the so-called shake-off model.

[1] W.-C. Chu et al, J. Phys. B **42**, 205003 (2009).

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