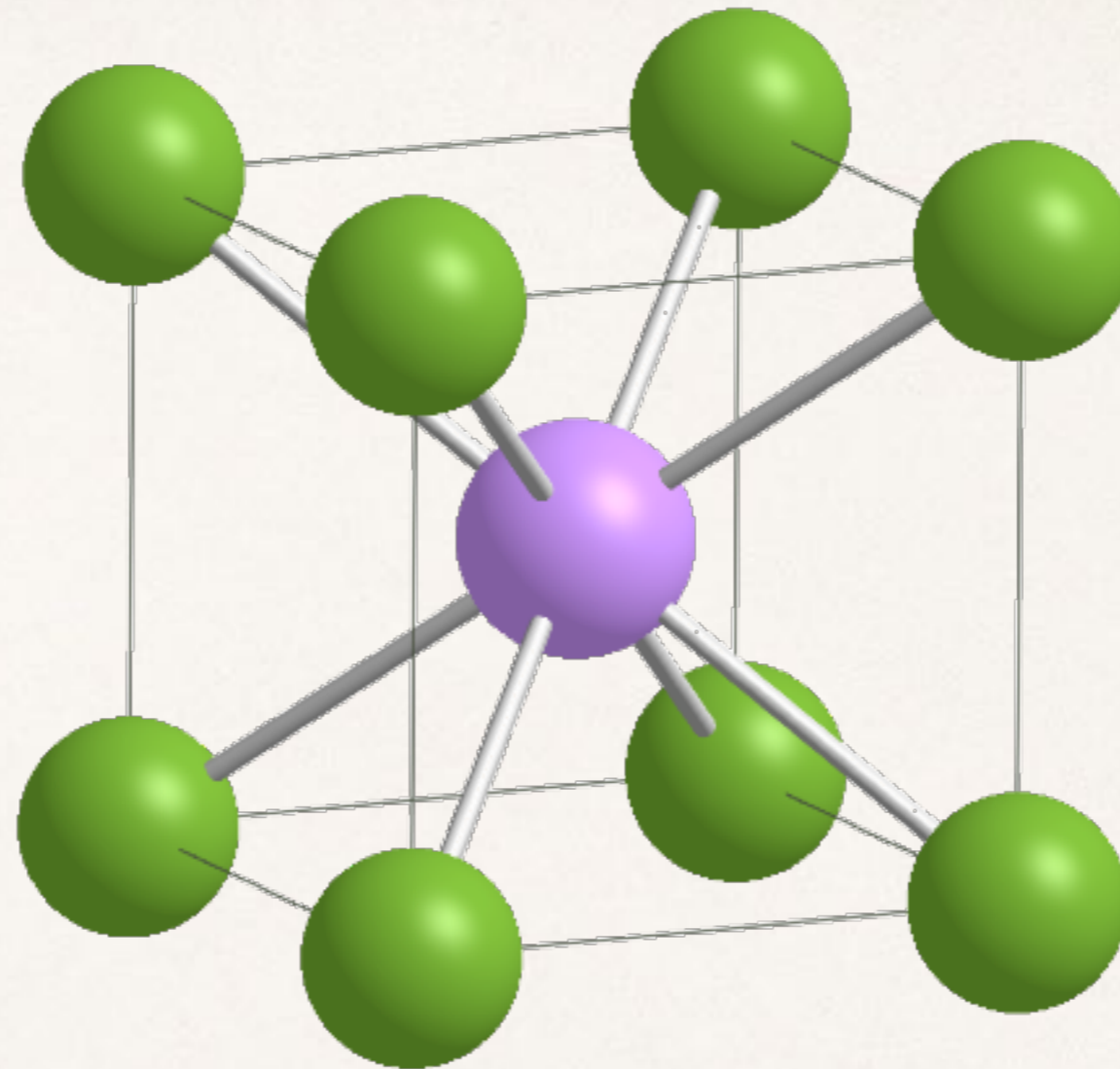


- * AX — halite NaCl, sphalerite ZnS, würtzite ZnS, CsCl



CsCl — ideal structure (size from ionic radii)

This is a primitive cubic lattice, with Cl ("X") atoms at the corners of the unit cell. The Cs atoms occupy large, 8-fold coordinated sites (and the CsCl_8 coordination polyhedra are cube shaped — the same size as the unit cell!).

This structure type is favored when the A atom becomes similar in size to the X atom. Specifically, when $r_A / r_X > 0.73$.

Note that the CsCl_8 coordination polyhedra share faces, this structure type is unattractive to highly-charged cations (Pauling's third rule).