

D Block Contraction (Scandide Contraction)



The d block contraction, also known as the Scandide Contraction, describes the atomic radius trend that the d block elements (Transition metals) experience. Normally the trend for atomic radius, moving across the periodic table is that the atomic radius decreases significantly. In the transition metals with D electrons as we move from left to right across the periodic table, the element's atomic radius only decreases slightly. This is because they have the same amount of s electrons, but are only differing in d electrons. These d electrons are in an inner shell (penultimate shell) and electrons are getting added to this shell, another shell is not created. The d electrons are not good at shielding the nuclear charge, so the atomic radius does not change much as electrons are added. Almost like disregarding the D electrons being added.