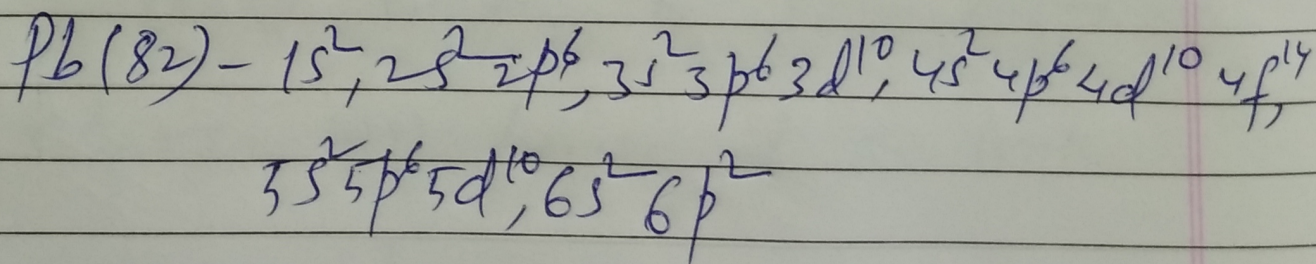
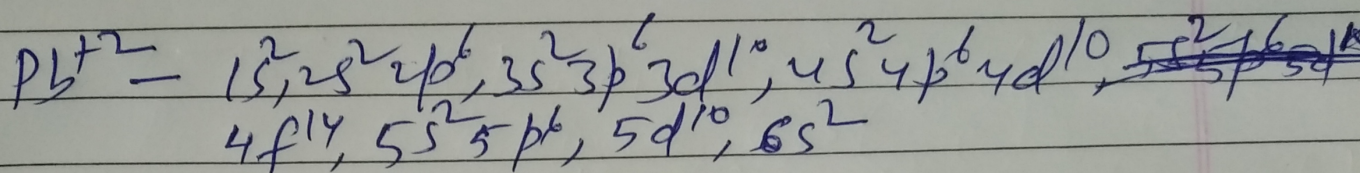


Inert pair effect

Some of the heavier elements having three or four ~~elements~~ electrons in their valence electrons are expected to form trivalent or tetravalent cations by losing all of the valence electrons.

But quite often they form only univalent or bivalent ions only losing one or two electrons from outer outermost orbit leaving two electrons intact in s-orbital of their outermost orbit.
eg —





The reluctance of the s-electrons to take part in bond formation is known as inert pair effect.

On more drastic treatment the s-electrons of the heavier element may enter into chemical combination.

Thus Sn and Pb both form -ous and -ic compounds in which their valency are 2 and 4 respectively.