fluorine lewis dot structure

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intermolecular forces - Why does fluorine form only one hydrogen bond ...

Fluorine in hydrogen fluoride can form only a limited amount of hydrogen bonds because there is only one (protic) hydrogen atom per fluorine. Ammonium fluoride has enough protic hydrogens to form hydrogen bonds with all four electron pairs on each fluorine — and so they do, in a wurtzite-type arrangement of the ions.

Why does chlorine have a higher electron affinity than fluorine?

Fluorine, though higher than chlorine in the periodic table, has a very small atomic size. This makes the fluoride anion so formed unstable (highly reactive) due to a very high charge/mass ratio. Also, fluorine has no d-orbitals, which limits its atomic size. As a result, fluorine has an electron affinity less than that of chlorine. See this, archived here.

Spontaneity and nature of attack of fluorine gas on aluminum

What is the nature of the reaction of attack of fluorine gas on aluminium metal? Is it spontaneous in nature? I have studied reactions of halogens on aluminium, but it had no information about fluo...

inorganic chemistry - Why is fluorine more reactive than chlorine ...

This is shielding. Lastly, fluorine is much smaller molecule than chlorine, and the shorter distance, or radius, between the nucleus and the electron again makes it more likely to attract the electron and react to gain a noble gas configuration.

inorganic chemistry - Why is fluorine the most electronegative atom ...

Fluorine is the most electronegative element because the definition of electronegativity makes it so. The electronengativity scales are defined based on experimentally determined properties of the elements.

Does fluorine have 5 or 7 active valence electrons?

Fluorine is listed as 5 "active" valence electrons, implying perhaps that the 2s electrons do not participate in bonding. Why is fluorine treated differently than oxygen (or does oxygen make

compounds where the 2s electrons are more involved in bonding than those of fluorine)?

halides - Why is fluorine more reactive than iodine despite the weaker ...

In this case, the formation of fluorine-containing products is generally much more thermodynamically favourable than that of the corresponding iodine-containing products.

halides - Can fluorine ever have a positive oxidation state ...

I know fluorine is the most electronegative element but can we humans ever synthesize fluorine in a positive oxidation state like +1?

Why is the carbon-fluorine bond stronger than the other haloalkanes ...

The partial charges on the fluorine and carbon are attractive, contributing to the unusual bond strength of the carbon–fluorine bond. The bond is labeled as " the strongest in organic chemistry," because fluorine forms the strongest single bond to carbon. Carbon–fluorine bonds can have a bond dissociation energy (BDE) of up to 544 kJ/mol.

Why does fluorine atom have a higher ionization energy than oxygen atom?

Both oxygen and fluorine (and nitrogen, carbon, boron and neon) have a 2p 2 p orbital as their highest occupied, so we expect to ionise from that. If you draw a trend of the ionisation energies, you observe that the energy rises from boron to nitrogen, is lower for oxygen and rises from oxygen to neon.