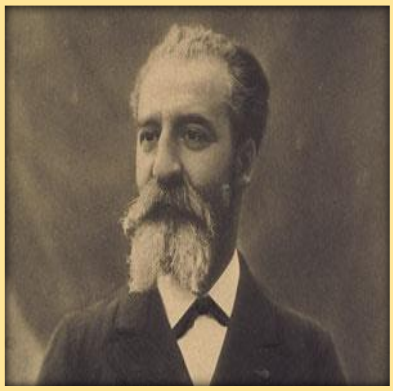

Fluorine

- **Discovery and naming**

Fluorine first discovered by French chemist Ferdinand Frederic Henri Moissan in 1886 by the electrolysis of potassium fluoride (KF) and hydrofluoric acid (HF).

The name Fluorine is derived from the mineral fluorite which comes from the Latin word “fluere” meaning "to flow.“

Uses:-

1. **Uranium hexafluoride – are used in processing nuclear fuel.**
2. **Sodium fluoride, are used in toothpaste and in drinking water to prevent dental cavities.**
3. **Hydrofluoric acid can dissolve glass and is used to etch the glass in light bulbs and in other products.**
4. **Fluorine is used in many fluoro chemicals, including solvents and high-temperature plastics, such as Teflon (polytetrafluoroethene), PTFE). Teflon is well known for its non-stick properties and is used in frying pans.**

Properties-

It is a poisonous gaseous halogen, it is pale yellow-green and most chemically reactive and electronegative of all the elements.
It readily forms compunds with most other elements, even with the noble gasses like krypton, xenon and radon. It is so reactive that glass, metals and even water,as well as other substances .

- **Facts about fluorine**
- **Fluorine is one of the few elements that can attack diamond.**
- **Fluorite, also called fluorspar, common halide mineral, calcium fluoride (CaF_2), which is the principal fluorine mineral.**
- **It is a pale yellow, white or colourless gas which can sometimes be fluorescent.**
- **There is just a single stable isotope of fluorine,F-19**
- **Isotopes of fluorine -**
- **Naturally occurring Fluorine is composed of one stable isotope F-19(100% natural abundance).**
- **There are seventeen isotopes of fluorine.**
- **Only 3 radioisotopes have been characterized, with the most stable being**
- **F-18 with half life of 109.77 minutes**
- **The isotopes of fluorine range in atomic weights from 14.03506 g/mol (F-14) to 31.06043 g/mol (F-31)**

- *By:- Aarnav Lakhanpal*