





Neon











Krypton

Also known as inert gases as their atoms don't combine with other atoms in chemical reaction

# First Noble Gas Compound - Xenon

Bartlett surprised every one by synthesiting XePtFs

### **Atomic Size**

Size increases as you go down the group.









### Helium

Helium is used in ballons. Initially hydrogen was used which is much lighter than Helium but due to its flammability, we shifted to Helium.

# Krypton

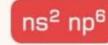
Light bulb containing krypton gas can produce a bright white light useful for photography and runaway lights.



# **Electronic Configuration**

These elements have 8 electrons in valence orbital which is considerd stable.

Exception: Helium has two valence electrons General electronic configuration





# Neon Light

Neon Lights which we use in our streets



are produced by ionising inert gas by applying voltage.





There are 22 known isotopes of argon ranging from argon-31 to argon-51 and argon-53.



#### Radon

Radon is radioactive and can enter homes through basements after radioactive decay of rocks below the earth.

# Reactivity of Xenon



- Xenon acts as fluorinating agent
  - Pt + XeF<sub>4</sub>



PtF4 + Xe

Xenon acts as fluoride acceptor

XeF<sub>4</sub> + MF<sub>5</sub>



[XeF<sub>3</sub>]<sup>†</sup> [MF<sub>6</sub>]<sup>–</sup>

Xenon acts as fluorine donar

XeF4 + MF M+ [XeF4]





