

2  
He  
Helium

10  
Ne  
Neon

18  
Ar  
Argon

36  
Kr  
Krypton

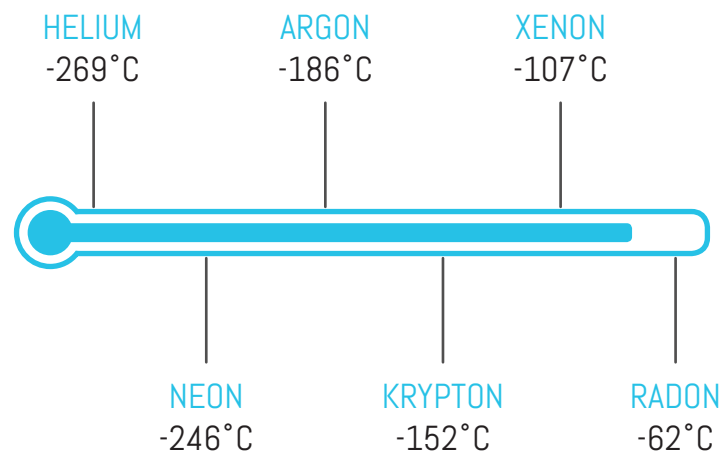
54  
Xe  
Xenon

86  
Rn  
Radon

# Group 18 - The Noble Gases

THE GROUP 18 ELEMENTS ARE ALL ODOURLESS, COLOURLESS, MONOATOMIC GASES WITH A VERY LOW CHEMICAL REACTIVITY

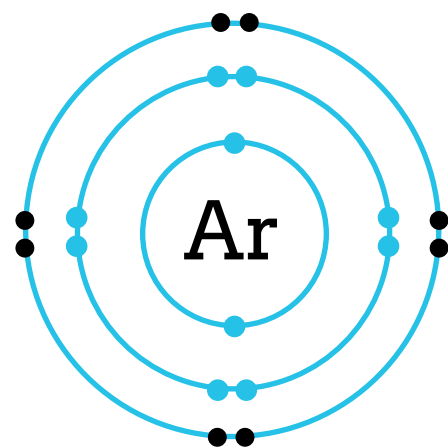
## BOILING POINTS



THE NOBLE GASES ARE ALL **MONOATOMIC** AND **RARELY FORM COMPOUNDS**

THE COLOURS IN 'NEON' SIGNS ARE CAUSED BY IONISED NOBLE GASES

He Ne Ar Kr Xe

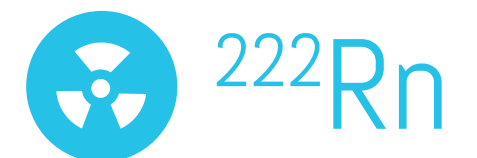


ALL OF THE GROUP 18 ELEMENTS HAVE A **FULL OUTER SHELL OF ELECTRONS**

1 2 3  
H He O  
75% 23% 1%

**HELIUM**  
IS THE **SECOND MOST ABUNDANT ELEMENT** IN THE UNIVERSE

**RADON** IS **RADIOACTIVE** AND CAN ENTER HOMES THROUGH BASEMENTS AFTER **RADIOACTIVE DECAY OF ROCKS** BELOW THE EARTH



THE GROUP 8 ELEMENTS ARE **VERY UNREACTIVE** AS THEY ALREADY HAVE A **FULL VALENCE ELECTRON SHELL**

**-269 °C**

**HELIUM** HAS THE LOWEST BOILING POINT OF ALL ELEMENTS IN THE PERIODIC TABLE

## USES OF THE NOBLE GASES



**HELIUM**

BALLOONS



**NEON**

NEON LIGHTS  
REFRIGERANT



**ARGON**

MEDICAL LASERS  
LIGHT BULBS



**KRYPTON**

CAMERA FLASHES



**XENON**

MEDICAL IMAGING