

Edexcel GCSE Chemistry

Topic 6: Groups in the periodic table Group 0

Notes



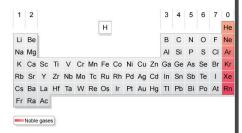






6.14 Explain why the noble gases are chemically inert, compared with the other elements, in terms of their electronic configurations

- They have 8 electrons in their outer shell (except helium, which has 2- but this shell is still full).
- Their electronic configurations demonstrate their full outer shells and this makes them unreactive because they are very stable



6.15 Explain how the uses of noble gases depend on their inertness, low density and/or non-flammability

- Low density = Helium used in balloons and airships since it is much less dense than air, so balloons filled with it float upwards
- Inertness & non-flammability = argon, krypton and xenon inside light bulbs, stops the filament burning away
- Inertness= argon used as a shield gas during welding, it is also denser than air which keeps it away from the metal

6.16 Describe the pattern in the physical properties of some noble gases and use this pattern to predict the physical properties of other noble gases

- The boiling points of the noble gases increase with increasing relative atomic mass (going down the group).
- The densities of the noble gases increase as you go down the group