

Properties of Period 3 elements and their oxides – A2 Chemistry P3

1. No.19

Consider the Period 3 elements from sodium to chlorine.

Which statement is correct?

[1 mark]

A Sodium has the smallest atomic radius.☐

B Aluminium has the highest melting point.

☐

C Sulfur is the most electronegative.

☐

D Chlorine has the highest first ionisation energy.

☒

largest atomic radius decreases across the period.
x Mg and Si have high mp
x Chlorine is.
Because electronegativity and effective nuclear charge increase across the period.

2. No.20

Which statement correctly describes a trend down Group 7 from Cl to I?

X represents Cl, Br or I

[1 mark]

A The boiling point of HX increases.

☒

B The bond dissociation energy of H-X increases.

☐C The standard electrode potential value for $X_2(aq) + 2e^- \rightarrow 2X^-(aq)$ becomes more positive.☐

D The solubility of AgX in ammonia increases.

☐

decreases down the group AgCl most soluble AgI least soluble.
 $X_2 + 2e^- \rightarrow 2X^-$