Unit 1: Atomic structure

Subunit 1.4: Ionisation energy

Topical Question No: 1

3 The first six ionisation energies of four elements are given.

Which element is most likely to be in Group IV of the Periodic Table?

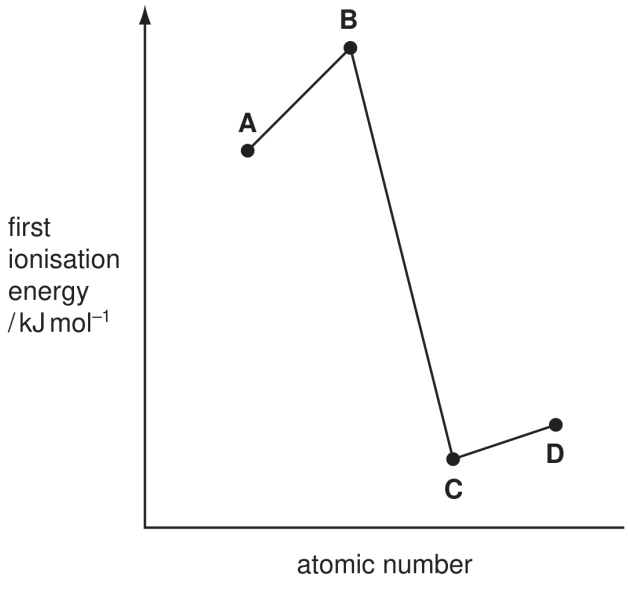
	ionisation energy / kJ mol^{-1}					
	1st	2nd	3rd	4th	5th	6th
A	494	4 560	6 940	9 540	13 400	16 600
B	736	1 450	7 740	10 500	13 600	18 000
C	1 090	2 350	4 610	6 220	37 800	47 000
D	1 400	2 860	4 590	7 480	9 400	53 200

Topical Question No: 2

10 Shown on the graph are the relative values of the first ionisation energies of four elements that have consecutive atomic numbers.

One of the elements reacts with hydrogen to form a covalent compound with formula HX.

Which element could be X?



Answer Key

1. Error
2. Error