

SMART EXAM RESOURCES
9702 AS CHEMISTRY PAPER 2
TOPIC: ATOMIC STRUCTURE
SUB-TOPIC: ELECTRONS IN BOXES NOTATION
SET-1

1

- (a) The most common zinc mineral contains zinc(II) sulfide, ZnS.
- (i) Complete the electrons in boxes diagram in Fig. 1.1 to show the electronic configuration of a zinc(II) ion.

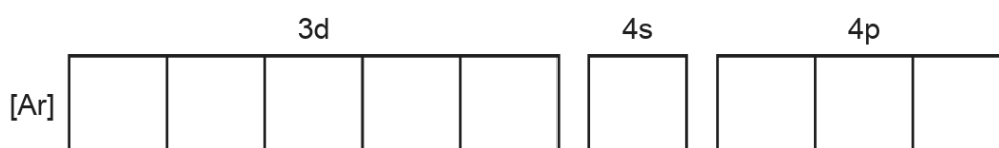


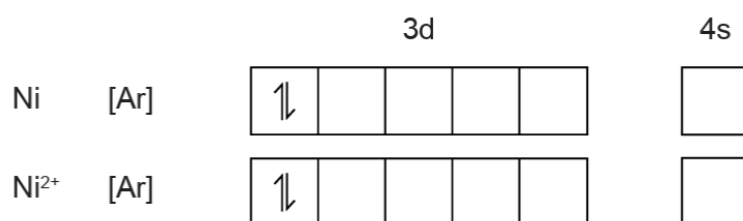
Fig. 1.1

[1]

Mark Scheme:

(a)(i)		[Ar]	1↓	1↓	1↓	1↓	1↓													1
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2 (a) Complete the electron configurations for Ni and Ni²⁺.



[2]

Mark Scheme:

(a)	3d						4s	1 1	[2]
	(Ni)	↑↓	↑↓	↑↓	↑	↑	↑↓		
(Ni ²⁺)	↑↓	↑↓	↑↓	↑	↑				