

Flame Emission Spectroscopy

Grade 6-7

1 Flame emission spectroscopy is an example of an instrumental method that can be used to analyse elements and compounds.

1.1 State **two** advantages of using instrumental methods compared to chemical tests.

.....
 [2]

1.2 What two pieces of information can flame emission spectroscopy tell you about metal ions in solution?

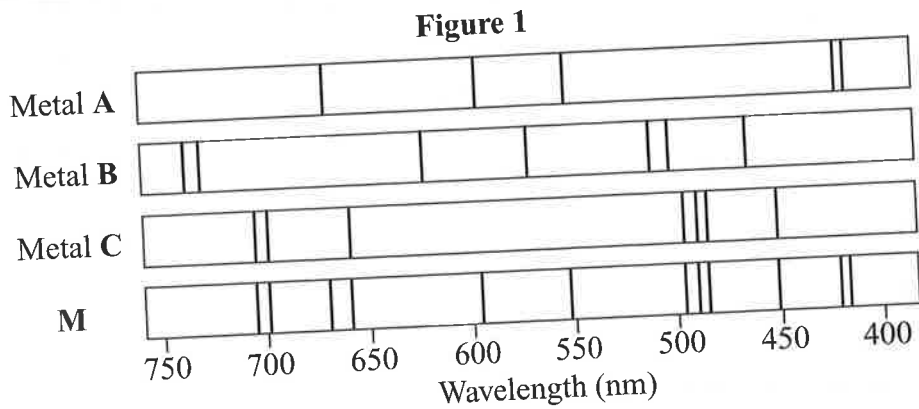
.....
 [2]

1.3 What type of spectra does flame emission spectroscopy produce?

..... [1]
 [Total 5 marks]

2 Flame emission spectroscopy can be used to detect various positive ions within a mixture. **Figure 1** shows the spectra for Metal A, Metal B, Metal C and a mixture, M.

Grade 7-9



2.1 Describe how flame emission spectroscopy works.

.....
 [2]

2.2 Which metal ion(s) are in the mixture, M?

..... [1]
 [Total 3 marks]

