7 Electrons in a beam are travelling at high speed in a vacuum. The electrons are incident on a metal target, causing X-ray radiation to be emitted.

The variation with wavelength λ of the intensity I of the emitted X-ray radiation is shown in Fig. 7.1.

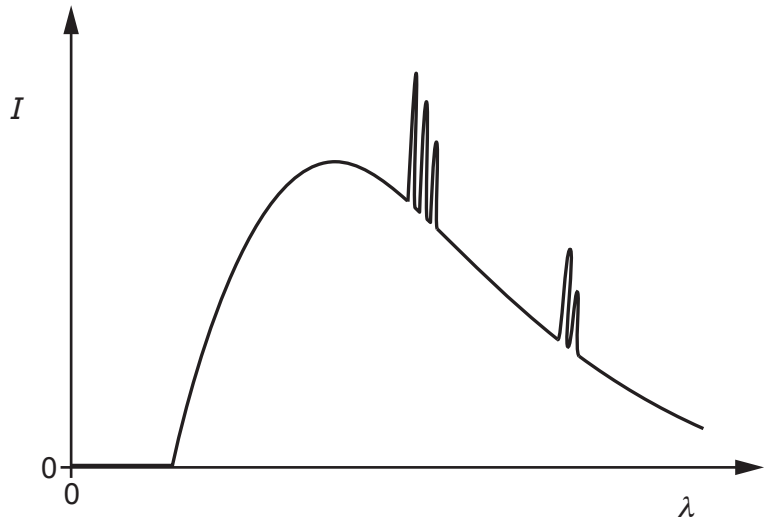

Fig. 7.1

Explain why:

(a) there is a continuous distribution of wavelengths

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..... [3]

(b) at certain wavelengths, there are narrow peaks of increased intensity.

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..... [3]

[Total: 6]