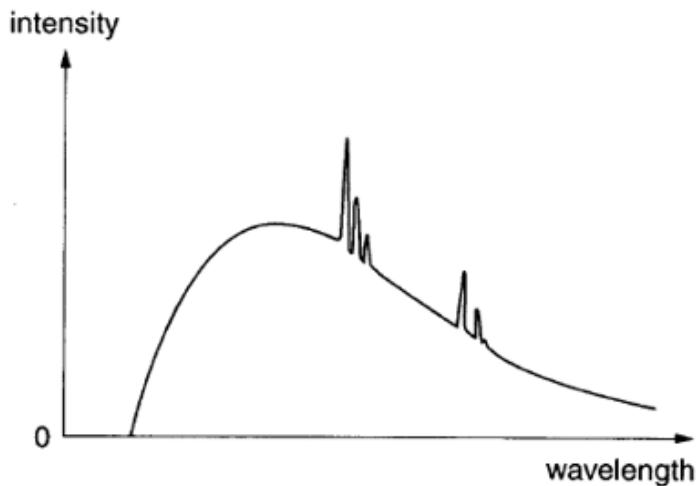


- 28 The diagram shows a sketch of the X-ray spectrum produced when electrons strike a metal target.



The potential difference V applied to the electrons incident on the metal is now increased.

Which of the following statements is correct?

- A All the energy of the electrons is converted into X-rays.
- B The wavelengths of the characteristic X-ray spectral lines are independent of the potential difference applied to accelerate the electrons.
- C The maximum X-ray wavelength obtained is $\frac{hc}{eV}$.
- D There is no change to the overall intensity of the X-ray spectrum.