Question Number	Answer	Mark
11	Use of $\lambda = h/p$ (1) Use of $p = mv$ (1) $m = 9.1 \times 10^{-31}$ (kg), so mass is that of an electron **Or** $m = 9.1 \times 10^{-31}$ (kg), so equals m_e **Or** $m = 9.1 \times 10^{-31}$ (kg), so yes it is (1) (MP3 – Do not allow answers that suggest the calculated mass is less than that of an electron, but allow "similar", "about the same") Example of calculation $p = \frac{h}{\lambda} = \frac{6.63 \times 10^{-34}\ \text{J s}}{7.37 \times 10^{-10}\ \text{m}} = 9.00 \times 10^{-25}\ \text{kg m s}^{-1}$ $m = \frac{p}{v} = \frac{9.00 \times 10^{-25}\ \text{kg m s}^{-1}}{9.89 \times 10^{5}\ \text{m s}^{-1}} = 9.10 \times 10^{-31}\ \text{kg}$	**3**
	Total for question 11	**3**