

Atomic Structure & Periodicity

- 1] What did JJ Thomson discover?
a) Proton b) Neutron c) Quark d) Electron
- 2] Millikan discovered the mass and charge of which particle?
a) Proton b) Neutron c) Electron d) Alpha particle
- 3] Which of the following types of radiation has the longest wavelength?
a) gamma rays b) visible c) ultraviolet d) radar
- 4] Which of the following has the longest wavelength?
a) blue light b) yellow light c) red light d) green light
- 5] Which of the following types of radiation has the highest energy?
a) gamma rays b) visible c) ultraviolet d) radar
- 6] Which of the following is NOT a proper unit of frequency?
a) Hz b) s^{-1} c) $m \cdot s^{-1}$ d) 1/s
- 7] What is the relationship between the energy of a photon of light and its frequency?
a) $E = v$ b) $E = h/v$ c) $E = hv$ d) $E = 1/hv$
- 8] What is the de Broglie wavelength of an electron moving at 80% of the speed of light?
a) $3.03 \times 10^{-12} \text{ m}$ b) $2.42 \times 10^{-12} \text{ m}$ c) $3.30 \times 10^{-11} \text{ m}$ d) $1.59 \times 10^{-25} \text{ m}$
- 9] Which quantum number determines the subshell occupied by the electron?
a) n b) l c) m_l d) m_s
- 10] Which of the following electronic transitions in a hydrogen atom would have the longest wavelength?
a) $n = 4$ to $n = 1$ b) $n = 4$ to $n = 2$ c) $n = 2$ to $n = 1$ d) $n = 4$ to $n = 3$

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Answers

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