Name _____

The Atomic Mystery: Why Don't Atoms Collapse?

Short Answer

1. Explain the structure of an atom, including the roles of protons, neutrons, and electrons.

2. Describe the Heisenberg Uncertainty Principle and its significance in understanding the behavior of electrons in atoms.

3. How do quantum mechanics and the principles of electron cloud behavior prevent atoms from collapsing into tiny, dense balls?

4. What is the role of the electromagnetic force in keeping electrons in their shells?

5. Explain why electrons in atoms exist in probabilistic electron clouds rather than following fixed paths.