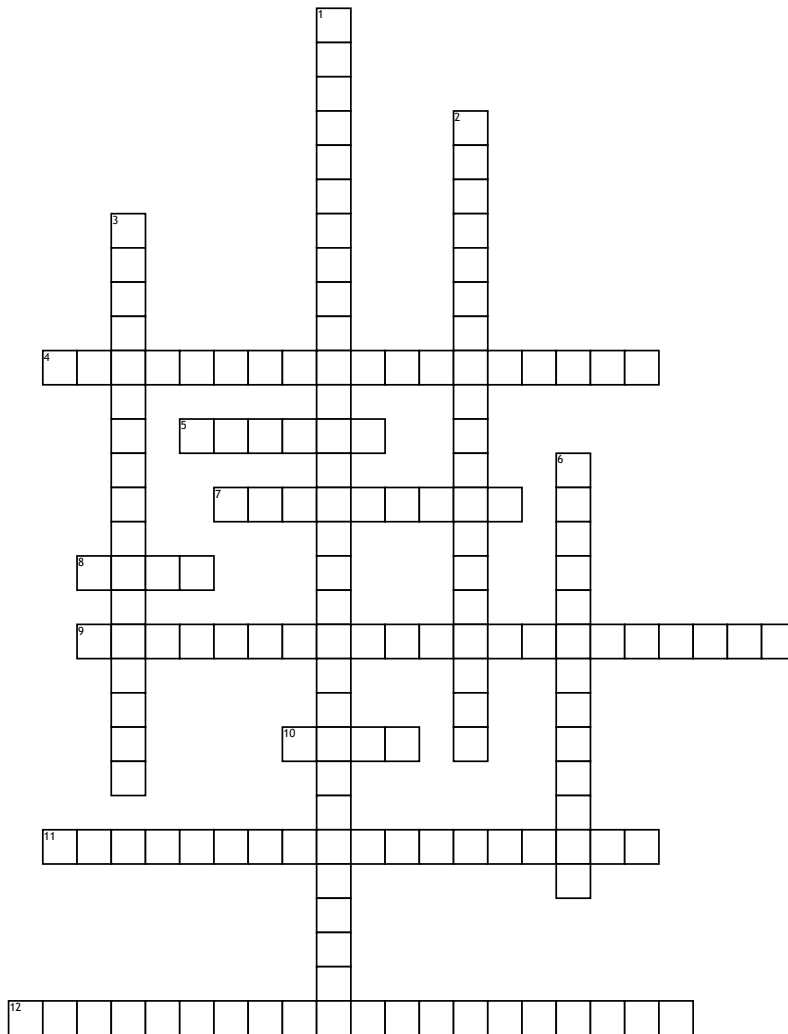


Quantum Theory



Across

4. A band of colors with all wavelengths and frequencies of visible light present is known as a ...

5. Who proposed that light was emitted or absorbed in quantized amounts?

7. The idea that matter, like light, can act as a wave and a particle was first theorized by...

8. The hydrogen line spectrum was mathematically proven by this scientist.

9. The arrangement of electrons around the nucleus of an atom is also known as..

10. Schrodinger's equation when solved for various energies of electrons produces four orbital shapes ...

11. When gaseous atoms are energized or excited, the electrons move to higher energy levels. The electrons then lose that energy and emit energy in the form of visible light. This produces a

12. The equation that when solved for wave functions describes the 3-D space known as an orbital is known as

Down

1. The idea that the very act of measuring the position and motion of an electron interferes with its motion and position is known as the...

2. The ejection of electrons from a metal surface.

3. The idea that light has characteristics of both waves and particles is known as...

6. The theory that light is emitted or absorbed by matter in discrete quantized amounts led to ...

Word Bank

dual nature of light

Bohr

quantum theory

Schrodinger's Equation

photoelectric effect

De Broglie

spdf

Heisenberg Uncertainty Principle

Planck

bright line spectrum

electron configuration

continuous spectrum