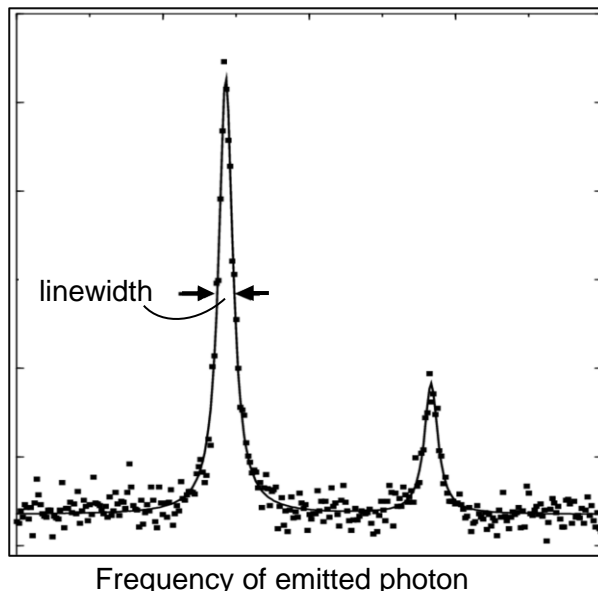


- 28** A laser-spectroscopy obtained an emission spectrum for hydrogen, part of which is shown in the figure below.



The emission lines represent electronic transitions between discrete energy levels. They are not perfectly sharp, but instead display finite linewidths as shown.

Which of the following best accounts for this phenomenon?

- A** photoelectric effect
- B** energy-time uncertainty principle
- C** wave-particle duality of photons
- D** position-momentum uncertainty principle