

8.5 The Bohr Atom (Video)

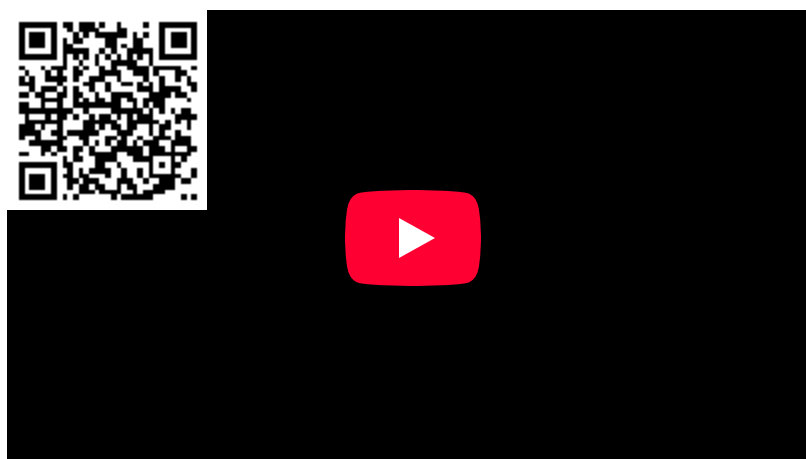
This project was preformed to supply **Libretext Authors** with videos on General Chemistry topics which can be used to enhance their projects. Also, these videos are meant to act as a learning resource for **all General Chemistry students**.

Video Topics

Rutherford's model of a nuclear atom does not indicate how electrons are arranged. In 1913 Niels Bohr explained how an electron can orbit a hydrogen (1 e-) atom. 1) Electrons move in circular orbits about the nucleus. 2) Electrons have only a fixed set of allowed orbits, called stationary states. The energy the electron has at each of these states is related to the equation. $E_n = -R_h / n^2$. Where $R_h = 2.18 \times 10^{-18} \text{ J}$ and n is an integer value: 1, 2, 3, 4... The variable n is related to the distance the electron is away from the nucleus. These concepts allow for the calculation of the wavelength of photon ejected when an electron drops from a higher n to a lower n value. Also, when a photon is absorbed the new n value of an electron can be calculated. This video contains a sample problem, which involves these concepts.

Link to Video

The Bohr Atom: <https://youtu.be/GuFQEOzFOgA>



Attribution

- Prof. Steven Farmer ([Sonoma State University](#))

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