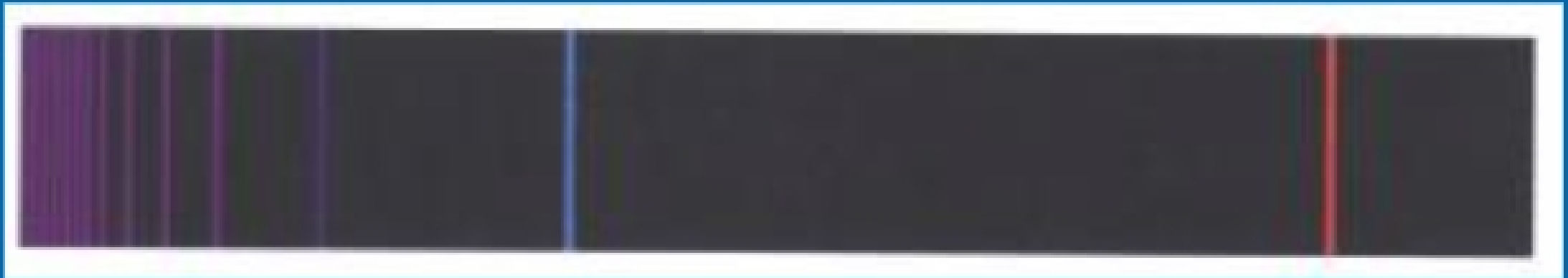


# *Line Spectra*



When the particles in the solid, liquid, or gas accelerate, they will produce EM waves.

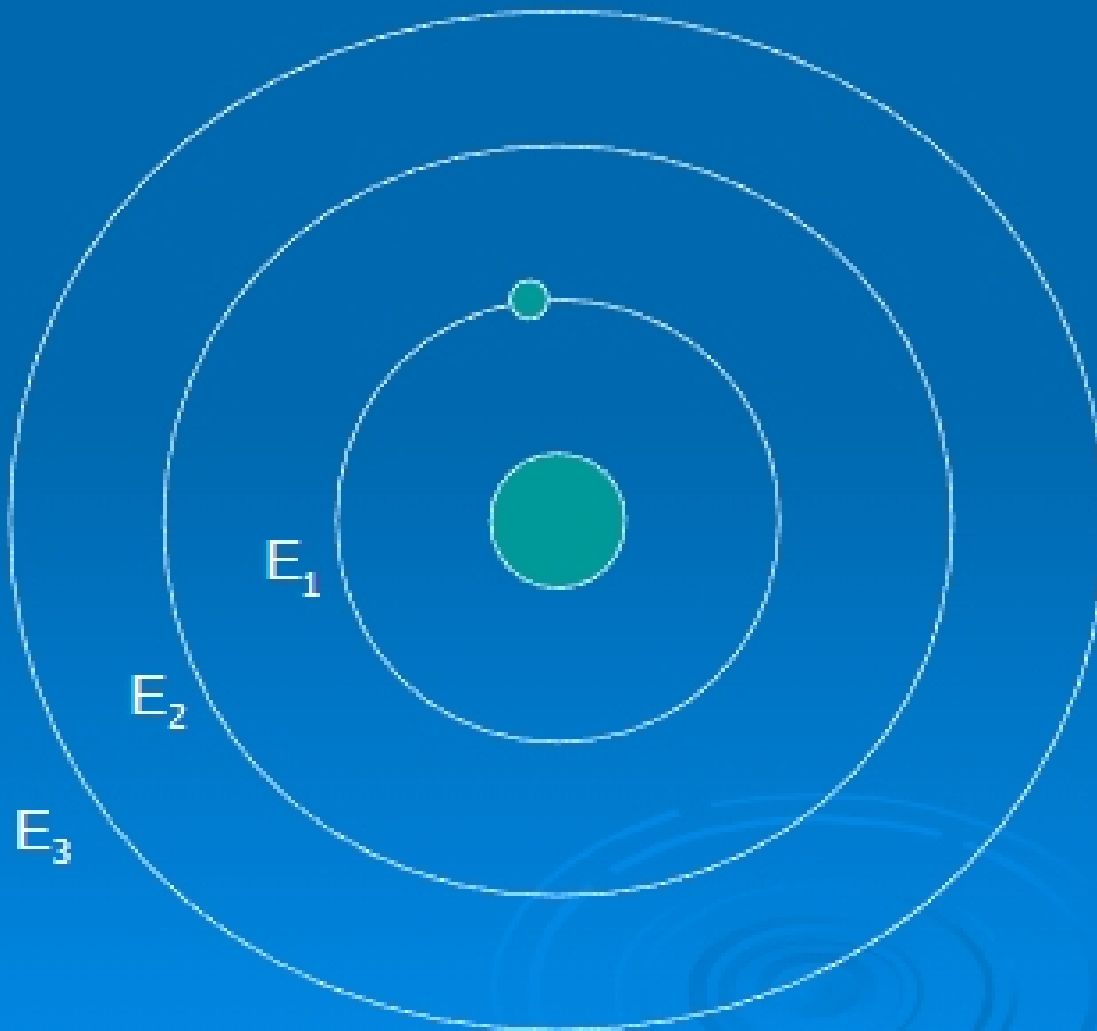
*Electron orbit to orbit transitions in atoms (gasses)*

*Applicable to the study of stars (gaseous objects)*

# *Line Spectra*

## *Atomic Structure*

Shell model of the atom (Bohr): electrons orbit the nucleus in hierarchy of stable orbits, each corresponding to a specific amount of electron energy.



# Line Spectra

## Atomic Structure

The normal state of the atom has the electron in the lowest energy orbit, called the **ground state**. The energy associated with the ground state is called the **ground state energy**.

