

Mini-LIPS '18

Say What?

The Atomic Hotel - Where Electrons Go To Get Excited

Jon W. Elvert

The Obligatory Introductions...

- Welcome to the planetarium.
 - Please silence your electronic devices.
 - If you need to leave the theater, you cannot re-enter.
 - The show is about stars and planets.
 - Now sit back, relax, and enjoy the show.
- (if presented live, introduce yourself and/or instrument).

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- Banter – ask to be #tagged as the best or favorite presenter.

Ask Questions If Necessary

- Who is here for their first time? Where are they from?
- What does the word planetarium mean?
- How many stars are in the solar system?
- Invite audience to contribute to the theater experience – questions.

Presenter

- Presenter is responsible for creating a “feel good” atmosphere, no matter the quality of the show.
- Presenter becomes the greeter, treats visitors as guests.
- Presenter’s language and tone can engage – use language audience can relate to (referencing Star Trek); non-lecturing attitude.
- Presenter becomes the guide, the first and last contact, the one visitors identify with while in the theater.

- Opportunity to share the human side of science (audience doesn't anticipate this trait)
- Exhibit passion (you're in the best place for a special experience...)
- Sharing with audience is an empowering experience (personal)

Non-verbal communication is also effective, especially while seating –
ambience of the theater makes an impression, sets the mood, and
raises expectations. (cove lighting effects, music, laser graphics on
dome)

Research on active engagement results in cognitive learning

Interacting with audience while they enter prepares them for paying attention

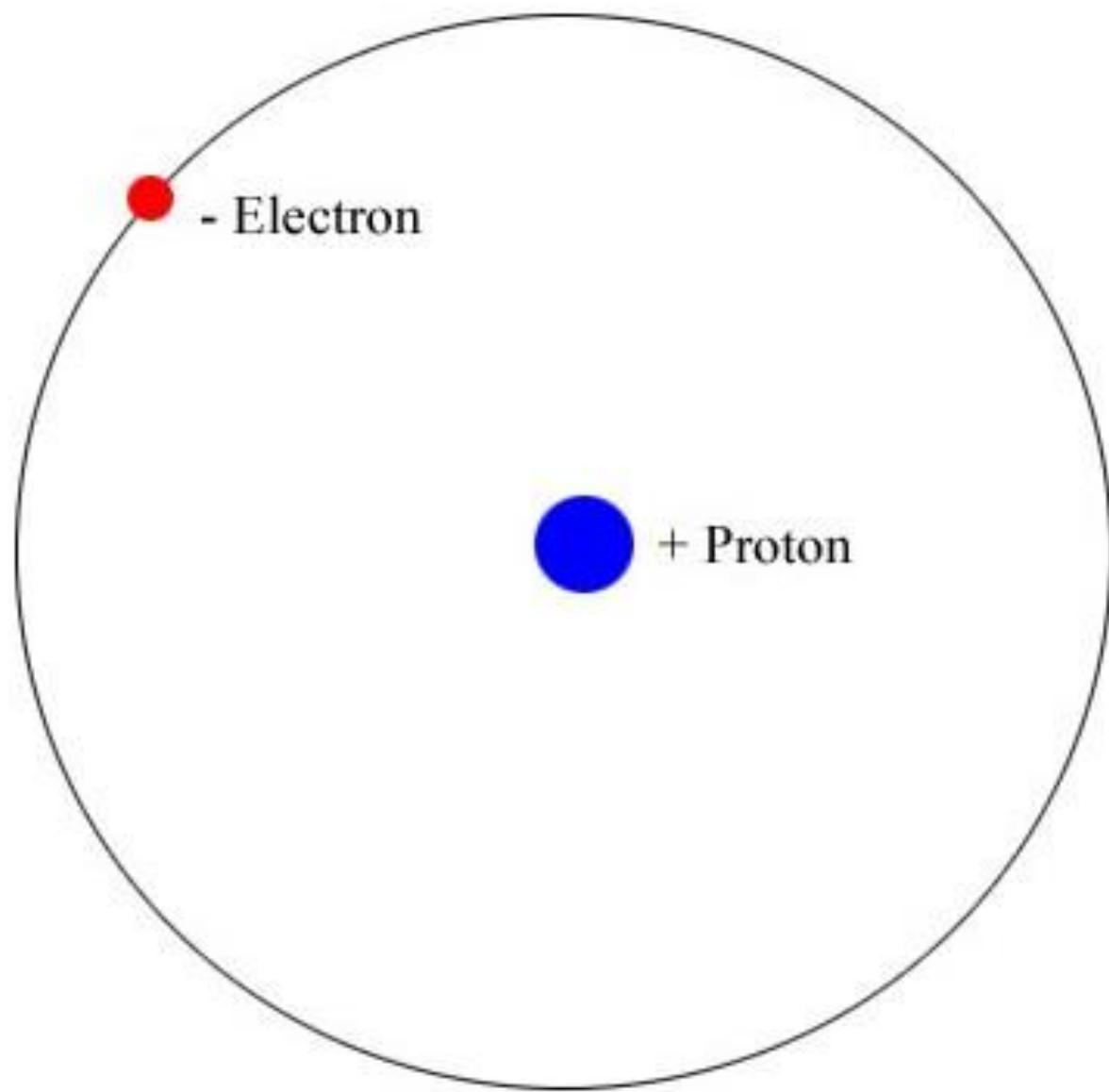
The quality and style of the presenter's presentation can surpass the quality of the show – the presenter becomes more memorable than the show itself.

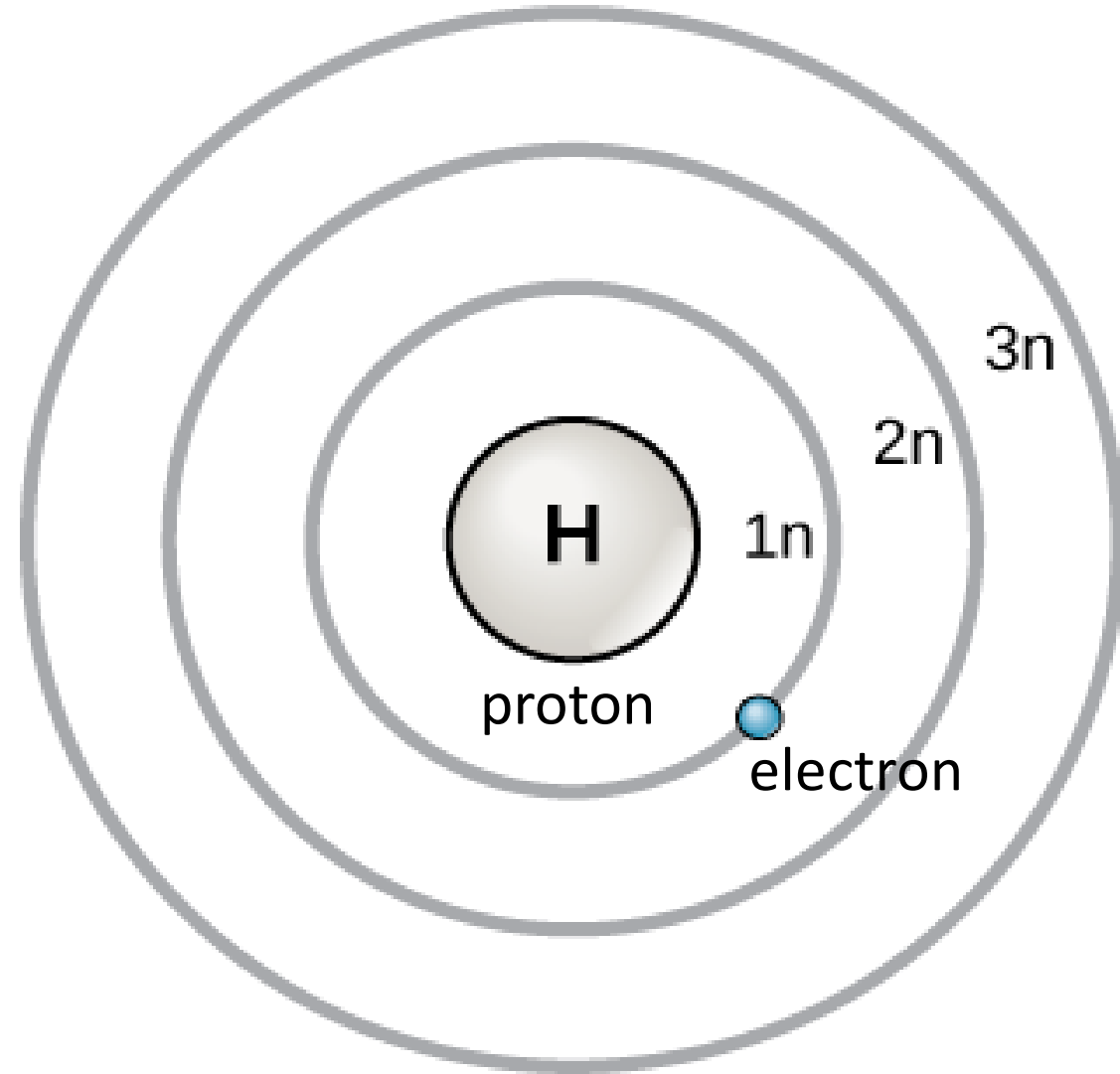
Transition Into the Show

- If beginning with a sunset (unidirectional seating), tell audience they're facing south and ask them to point to direction of sunset.
- After sunset, with light pollution, ask what they see in the sky.
- What you see depends upon how you look.
- Initiate a pair-share question (identify objects or constellations).
- Share iPad, or other remote devices, to facilitate audience engagement of exploration.

The Atomic Hotel

Where Electrons Go To Get Excited





H

proton

1n

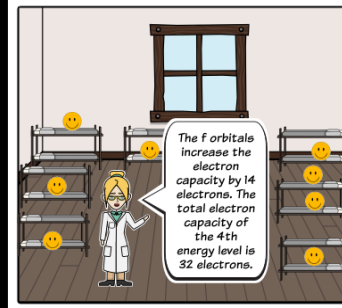
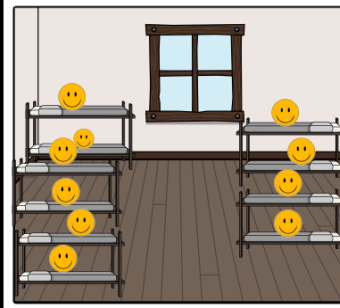
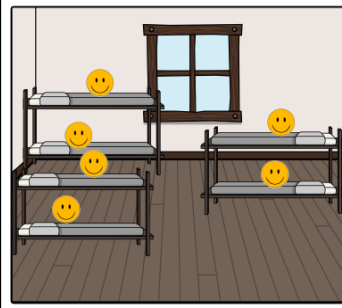
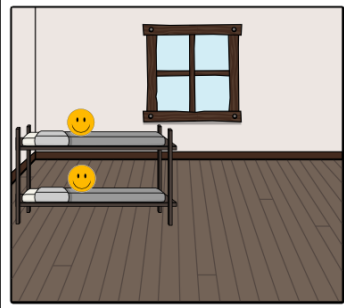
2n

3n

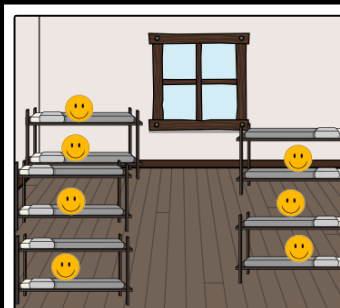
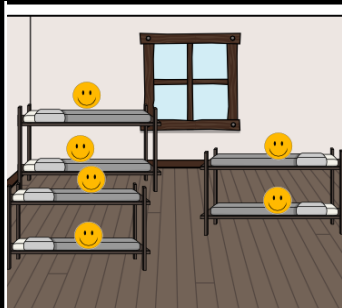
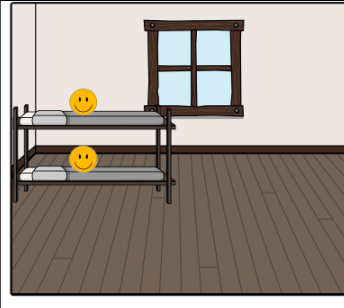


electron

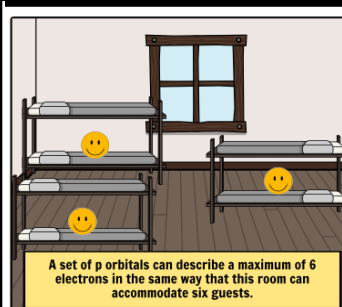
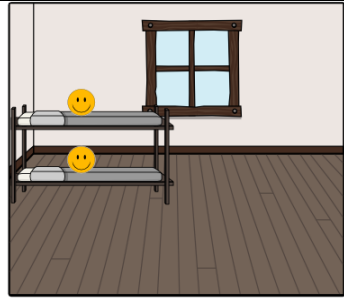
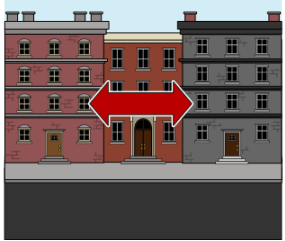
THE 4TH ENERGY LEVEL



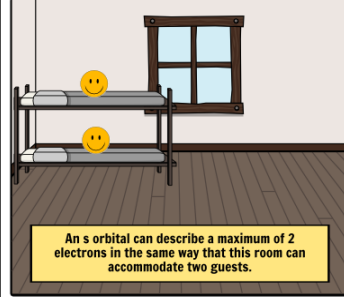
THE 3RD ENERGY LEVEL

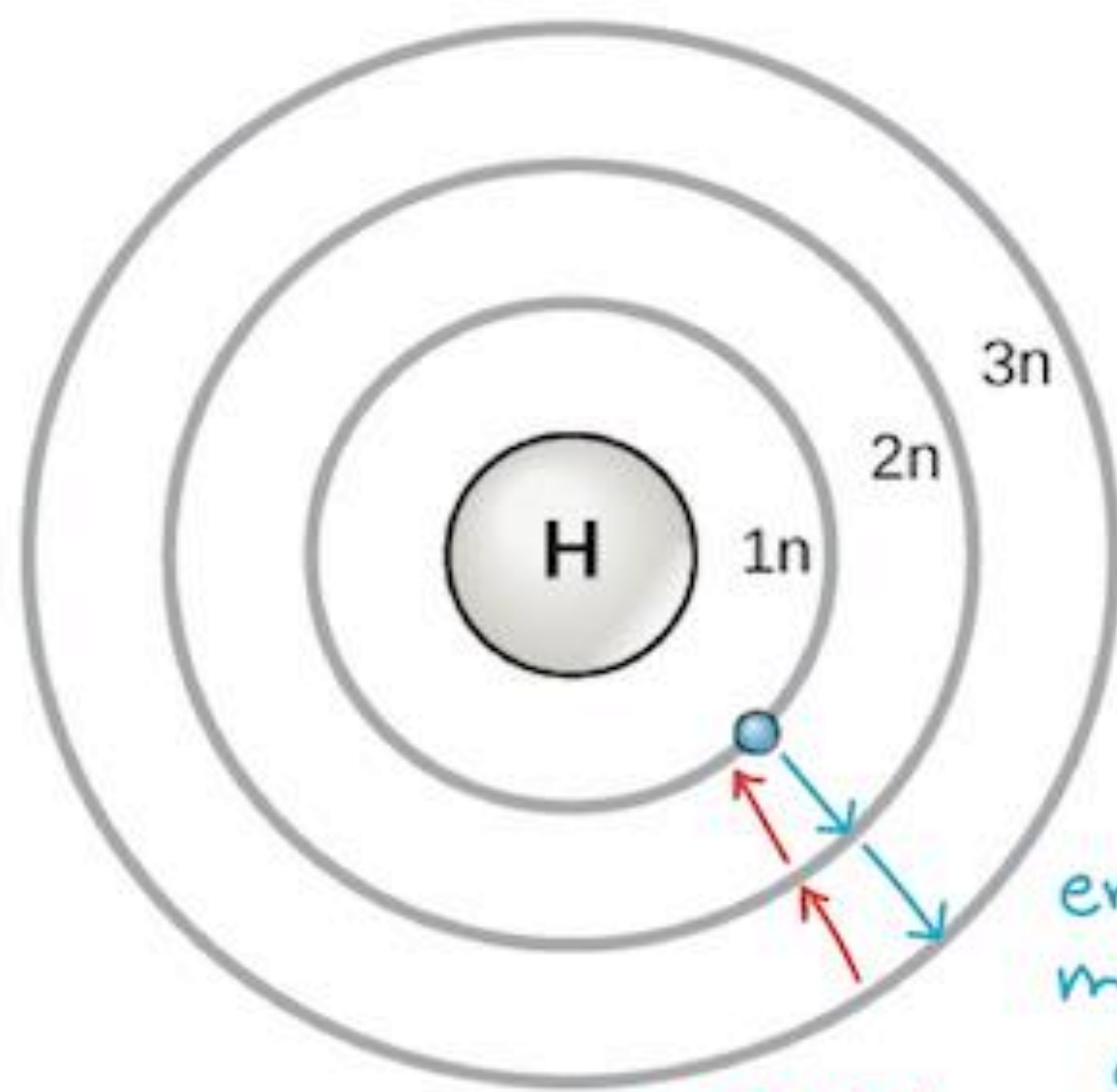


THE 3RD ENERGY LEVEL



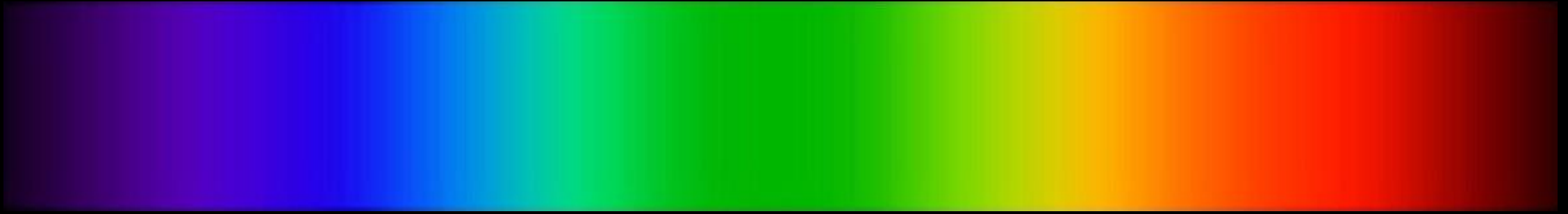
THE 1ST ENERGY LEVEL



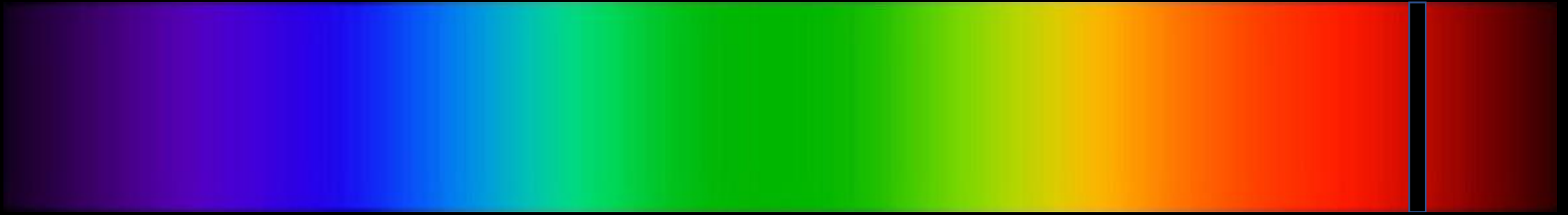


energy is released

energy must be absorbed



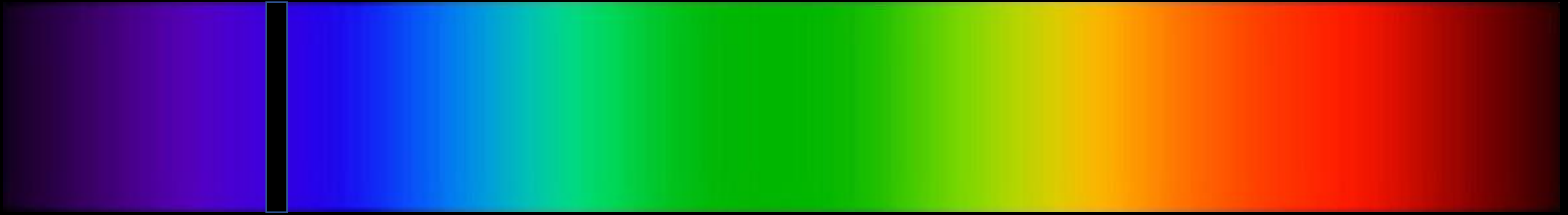
Continuous spectrum



656 nm



486 nm



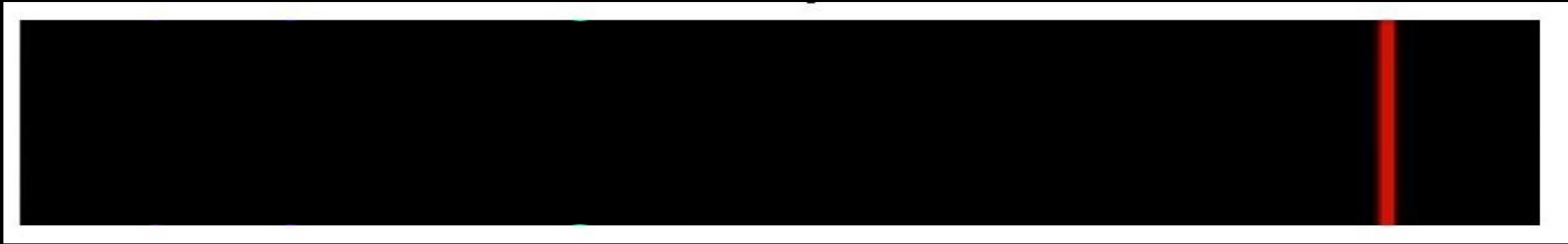
434 nm

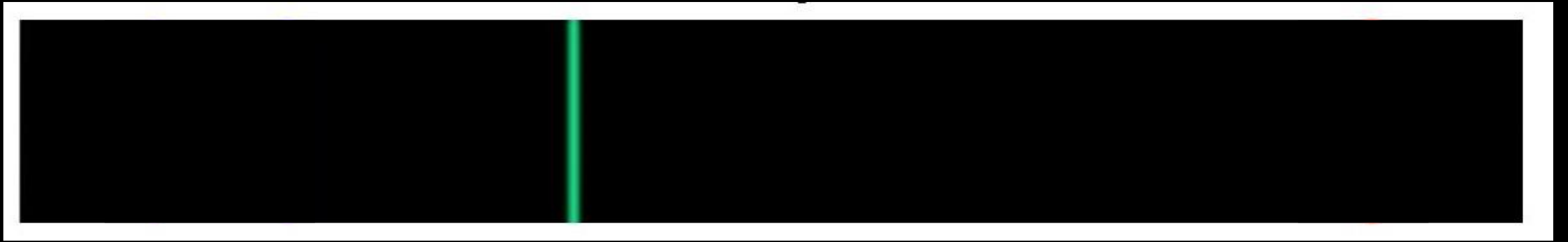


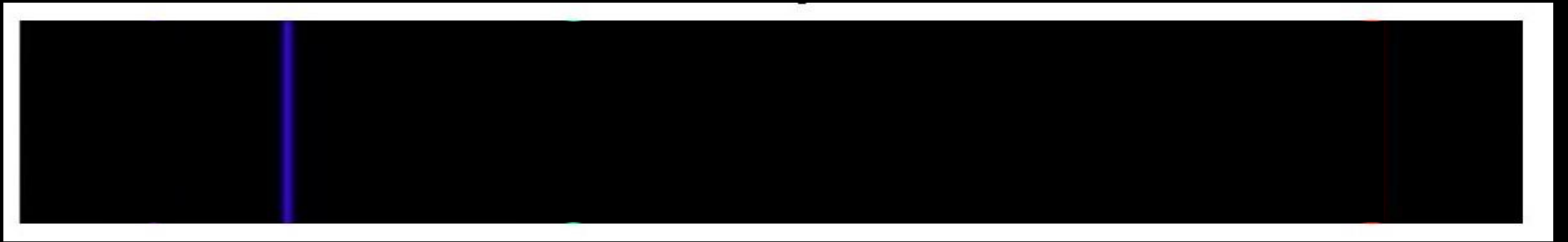
410 nm



Absorption spectrum











Emission spectrum

