

Fingerprints in Starlight: Spectroscopy of Stars

Inquiry Questions

1. What type of reaction fuels the sun? Write the equation(s) for the reaction.
2. What happens to the photons released by this reaction?
3. What color is the sun? Why is it this color?
4. Why do we care so much about the Balmer series in atomic spectra? What is H_{α} ?
5. Why do electrons need to be in the second energy level in order to be able to absorb photons with Balmer wavelengths?
6. Why is information about stars contained in absorption rather than emission spectra?
7. What information can be obtained from emission and absorption spectra?
8. Are all elements found in every star? If not, why?
9. Which elements are found in all stars? Why do you think this is the case?
10. Why do we find the same elements in the stars as we find on Earth?