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What makes things glow in the dark? In this lab, you will explore the concept of luminescence, light energy produced from other forms of energy, specifically, bioluminescence, chemiluminescence, and fluorescence. And you will discover how chemiluminescence can be harnessed as a powerful tool for scientists.

1 Wha gl ı he daſk?

Luminescence, unlike fire, is “cold light” that can be emitted at normal and lower temperatures. In luminescence, some energy source kicks an electron of an atom out of its lowest energy “ground” state into a higher energy “excited” state. Then the electron returns the energy in the form of light so it can fall back to its “ground” state. With few exceptions,

2 L [illegible]

Take the information you have learned about chemiluminescence and apply it to your own experiment using the chemical luminol. Follow the instructions and record your observations in the chart below.

Time to put on your safety glasses and gloves!

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Is this an example of bioluminescence, chemiluminescence or fluorescence?

What is one thing scientists can detect using chemiluminescence?