

Poly-ox with a Twist Demonstration Worksheet

Discussion Questions

1. Describe the appearance and behavior of the polyethylene oxide.
2. When polyethylene oxide is combined with water, the long polymer chains, which are already extensively bonded to each other, will form even more hydrogen bonds with surrounding water molecules. In this state it resembles inter-twined spaghetti. How do you think this contributes to its gel-like appearance and self-siphoning behavior?
3. What is a polymer?
4. Fluorescence occurs when a substance absorbs a photon from a light source. The energy from that photon causes an electron to move to an “excited” state (higher energy level). As that electron returns to its ground it releases another photon with a particular wavelength. Explain how this relates to the “colorful glow” you see when a substance fluoresces.