Comparing Dye Changes After Light Pulses

Scoring guide · one credit per question · review written work against each rubric

Comparing Dye Changes After Light Pulses

Question 1

Choice (1)

J delivers 2.0 × 3.0 = 6.0 mJ, and K delivers 6.0 × 1.0 = 6.0 mJ. They use different powers.

Question 2

A power of 2.0 mJ/s for 6.0 s delivers 12 mJ.

Question 3

J and L share the same 2.0 mW peak power but give readings of 80 and 65. Their durations and total energies differ, so peak power alone does not give the same result in the two tests.

Question 4

Use two pulses with different powers and durations but the same energy above or below 6.0 mJ. For example, compare 2.0 mW for 4 s with 4.0 mW for 2 s. Keep wavelength and starting dye conditions the same and compare color readings.