Question #75130, Chemistry / General Chemistry / Completed

The reactant concentration in a first-order reaction was 7.10×10^{-2} M after 10.0 s and 2.10×10^{-3} M after 95.0 s . What is the rate constant for this reaction?

Solution:

Rate = Δ C / Δ τ = $(7.10 \times 10^{-2} - 2.10 \times 10^{-3})$ / $(95.0 \ s - 10.0 \ s)$ = 8.1×10^{-4} mol/L·s

Answer: 8.1×10^{-4} mol/L·s

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