

KINETICS: CONCENTRATION EFFECT
Report Form

Name _____ Date _____

Section _____

[I⁻] Effect

Initial Concentrations in flask: [S₂O₃²⁻] _____ [H₂O₂] _____

Flask	<u>Initial</u> [I ⁻]	Time of clock reaction in s	Rate
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

Attach graph of ln (Rate) vs. ln [I⁻]

Slope of best straight line _____

Order of reaction: with respect to I⁻ _____

[H₂O₂] Effect:

Initial Concentrations in flask: [S₂O₃²⁻] _____ [I⁻] _____

Flask	<u>Initial</u> [H ₂ O ₂]	Time of clock reaction in s	Rate
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____

Attach graph of ln (Rate) vs. ln [H₂O₂]

Slope of best straight line _____

Order of reaction with respect to H₂O₂ _____

Calculate Rate Constant (k) using the orders of the reaction determined above:

Flask #	1	2	3	4
[I ⁻] Effect trials	_____	_____	_____	_____
[H ₂ O ₂] Effect trials	_____	_____	_____	_____

Average rate constant from all trials: _____