

Name:

Date:

REACTION KINETICS**OXIDATION OF POTASSIUM IODIDE WITH POTASSIUM PERSULFATE (10A)****RECORD SHEET****Balanced chemical equation:****Experimental data and relevant calculations:** $[\text{Na}_2\text{S}_2\text{O}_3]_0/\text{M} =$

No.	time of mixing	time of discoloration	$\Delta t/\text{s}$	$r_0/(\text{Ms}^{-1})$	$\ln(r_0/\text{Ms}^{-1})$
I.					
II.					
III.					
IV.					
V.					
VI.					
VII.					
VIII.					
IX.					

No.	$[\text{I}^-]_0/\text{M}$	$[\text{S}_2\text{O}_8^{2-}]_0/\text{M}$	$\ln([\text{I}^-]_0/\text{M})$	$\ln[\text{S}_2\text{O}_8^{2-}]_0/\text{M}$
I.				
II.				
III.				
IV.				
V.				
VI.				
VII.				
VIII.				
IX.				

Relevant calculations:**Graph preparation:**

The two graphs of $\ln(r_0/\text{Ms}^{-1})$ vs $\ln([\text{I}^-]_0/\text{M})$ and $\ln(r_0/\text{Ms}^{-1})$ vs $\ln([\text{S}_2\text{O}_8^{2-}]_0/\text{M})$ should be attached.

	$\ln(r_0/\text{Ms}^{-1}) - \ln([\text{I}^-]_0/\text{M})$	$\ln(r_0/\text{Ms}^{-1}) - \ln([\text{S}_2\text{O}_8^{2-}]_0/\text{M})$
Slope		
Intercept		

$$\beta_{\text{KI}} = \text{[]}$$

$$\beta_{\text{K}_2\text{S}_2\text{O}_8} = \text{[]}$$