Name: Date:

OXIDATION OF POTASSIUM IODIDE WITH POTASSIUM PERSULFATE (10A)

RECORD SHEET

Balanced chemical equation:

Experimental data and relevant calculations:

$[Na_2S_2O_3]_0$/M=

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

No.	$[I^-]_0$/M	$[S_2O_8^{2-}]_0$/M	$\ln([I^-]_0/\mathrm{M})$	$\ln[S_2O_8^{2-}]_0/\mathrm{M})$
I.				
II.				
III.				
IV.				
V.				
VI.				
VII.				
VIII.				
IX.				

Relevant calculations:

Graph preparation:

The two graphs of ($\ln(r_0/\mathrm{Ms}^{-1})$ *vs* $\ln([\mathrm{I}^-]_0/\mathrm{M})$ and $\ln(r_0/\mathrm{Ms}^{-1})$ *vs* $\ln([\mathrm{S_2O_8^{2-}}]_0/\mathrm{M})$ should be attached.

	$\ln(r_0/\mathrm{Ms}^{-1})$–$\ln([\mathrm{I}^-]_0/\mathrm{M})$	$\ln(r_0/\mathrm{Ms}^{-1})$–$\ln([\mathrm{S_2O_8^{2-}}]_0/\mathrm{M})$
Slope		
Intercept		

$\beta_{\mathrm{KI}} =$ ____

$\beta_{\mathrm{K_2S_2O_8}} =$ ____