

Experiment 17-044  
Determination of an Equilibrium Constant

**LABORATORY REPORT SHEET**

Name \_\_\_\_\_ Date \_\_\_\_\_ Lab Section \_\_\_\_\_

*Calibration Curve:*

Solution #	mL $\text{SCN}^-_{(\text{aq})}$ stock solution	$[\text{SCN}^-_{(\text{aq})}]$	$[\text{FeSCN}^{2+}_{(\text{aq})}]$	$A_{450}$
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____

After drawing your Calibration Curve, determine the equation for best straight-line fit to your data: (Be sure to include a calibration curve in your final report). Give the equation in the box below.

Molar Absorbivity,  $\epsilon$  \_\_\_\_\_  
(Be sure to include units)

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**LABORATORY REPORT SHEET (2)**

Name \_\_\_\_\_ Date \_\_\_\_\_ Lab Section \_\_\_\_\_

*Part B The Reaction Quotient*

Trial #	1	2	3	4	5	6
mL Fe <sup>3+</sup> solution	_____	_____	_____	_____	_____	_____
mL SCN <sup>-</sup> solution	_____	_____	_____	_____	_____	_____
[Fe <sup>3+</sup> <sub>(aq)</sub> ] <sub>init</sub>	_____	_____	_____	_____	_____	_____
[SCN <sup>-</sup> <sub>(aq)</sub> ] <sub>init</sub>	_____	_____	_____	_____	_____	_____
A <sub>450</sub>	_____	_____	_____	_____	_____	_____
[FeSCN <sup>2+</sup> ] <sub>(eq)</sub>	_____	_____	_____	_____	_____	_____
[Fe <sup>3+</sup> <sub>(aq)</sub> ] <sub>(eq)</sub>	_____	_____	_____	_____	_____	_____
[SCN <sup>-</sup> <sub>(aq)</sub> ] <sub>(eq)</sub>	_____	_____	_____	_____	_____	_____
Q	_____	_____	_____	_____	_____	_____
mean Q	_____					