

# Rubric for Peer Evaluation of Assign. #4 Submitted by \_\_\_\_\_

	<b>Beginning 1</b>	<b>Developing 2</b>	<b>Accomplished 3</b>	<b>Exemplary 4</b>	<b>Score</b>
<b>Structural Chemistry &amp; Scheme 1</b>	At least 2 structures are given. Problems with more than 1 structure.	Three structures are given, minor problems with more than 1 structure. Colored. Flow and alignment lack. Legend provided in Word file.	Three structures are given, 2/3 are correct & complete, colored. Flow logic, aligned, with $\lambda_{\max}$ and $\epsilon$ given in scheme. Legend provided in Word file at correct location.	Three complete structures, colored perfectly. Flow logic, well aligned, $\lambda_{\max}$ and $\epsilon$ given in scheme. Legend provided in Word file at correct location and in correct format.	/4
<b>Acid-Base Equilibria; Comp. Concs.</b>	Columns 1 & 2 are mostly correct. Problems with concepts of acid-base equilibria.	$D_o$ selection obscure. At least 4 of 5 columns presented as requested. Date show numerical problems due to formula and/or parameters.	Well selected $D_o$ . At least 4 of 5 columns presented as requested, data computed with correct formulas and using appropriate $pK_a$ values.	Columns 1 – 5 presented as requested, data computed correctly, using correct $pK_a$ values, and well selected $D_o$ .	/4
<b>Figure 1 and Regression</b>	Figure 1 is present. Problems with content or format of plot / legend / Henderson-Hasselbalch equation (HHE).	At least 2 of 3 line plots (pH, [C]), (pH, [D]), & (pH, [A]) shown reasonably well. Legend present. Problems with HHE.	At least 2 of 3 line plots (pH, [C]), (pH, [D]), & (pH, [A]) shown correctly for $1.5 < \text{pH} < 11.5$ . Legend contains reasonable HHE.	Three unmarked line plots (pH, [C]), (pH, [D]), & (pH, [A]) shown correctly for $1.5 < \text{pH} < 11.5$ . Legend contains correct HHE.	/4
<b>Compute Spectra &amp; Figure 2</b>	Attempts to compute spectra, i.e., ( $\lambda$ , $A(\lambda)$ ) pairs for a given pH, show problems with Beer's law, the concept of Gaussian line shapes, and the concept of superposition.	Excel file contains data for computed spectra, i.e., ( $\lambda$ , $A(\lambda)$ ) for a given pH, but problems with computations of $A(\lambda)$ . Several spectra are shown for some of the req. pH values. Legend provided.	At least five spectra are shown for req. pH values. Spectra appear mostly correct and are colored appropriate. Legend provided.	At least 5 spectra shown for req. pH values. Spectra are correct, correct $\lambda_{\max}$ and $\epsilon$ , well fudged Gaussian widths, shown in range $300 < \lambda < 600$ nm, appropriate color. Legend provided.	/4
<b>Organisation of Hardcopy</b>	Some information provided but lacking in content and/or format.	Pertinent info. provided. Issues with sequence and/or page breaks.	All pertinent info. provided, in req. sequence, with req. page breaks and header.	All pertinent info. provided, in req. sequence, with req. page breaks, header, page numbers, and stapled.	/4
				<b>Total (Max. 20)</b>	<b>/20</b>

Constructive Comments to Guide the Authors' Revision: