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Efficient Energy Transfer in Supramolecular, Hydrogen-Bonded Polypyridylruthenium-Osmium Complexes

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SUPPORTING INFORMATION

Title: Efficient Energy Transfer in Supramolecular, Hydrogen-Bonded Polypyridylruthenium-Osmium Complexes

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Determination of A_0 and I_{NQ}

$c(\text{Rutm}) = x * c(\text{Osby3})$	mol/L	
	A_0	I_{NQ}
x	$c(\text{Rutmbbi})$	@630nm
0	0	0.31987
0.1	9.48E-07	1.91512
0.33	3.16E-06	5.25557
0.5	4.74E-06	7.93729
0.67	6.32E-06	11.58807
1	9.48E-06	15.68656
1.5	1.42E-05	22.36063
2	1.90E-05	30.08187
2.5	2.37E-05	34.60491

Determination of A and I_Q

$c(\text{Rutm}) = x * c(\text{Osmc})$	mol/L	
	A_0	I_Q
x	$c(\text{Rutmbbi})$	@630nm
0	0	0.2562
0.1	9.48E-07	0.33965
0.33	3.16E-06	0.65053
0.5	4.74E-06	0.9911
0.67	6.32E-06	1.52757
1	9.48E-06	3.33764
1.5	1.42E-05	9.85509
2	1.90E-05	17.70058
2.5	2.37E-05	23.26459

Determination of K and $\log_{10}K$

x	[A]	K	$\log_{10}(K)$
0	mol/L	L/mol	
0.1	1.60E-07	5.66E+05	5.75
0.33	3.73E-07	1.12E+06	6.05
0.5	5.64E-07	1.40E+06	6.15
0.67	7.93E-07	1.76E+06	6.25
1	1.92E-06	2.05E+06	6.31
1.5	5.96E-06	1.11E+06	6.05
2	1.06E-05	6.96E+05	5.84
2.5	1.52E-05	5.89E+05	5.77

$$A=\frac{A_0\cdot I_{\mathcal{Q}}\cdot x}{I_{N\mathcal{Q}}}$$

$$\mathbf{x} = {}^{20}/_{21}$$

$$K=\frac{A_0-A}{A\cdot (B_0-A_0+A)}$$