

Supporting Information (Rucker & Byers)

X(%)	pK _{Mo}	pK _{cmp}	logk _P	logk _{Mo}	log[H ₂ O]	DMSO(v/v%)
0.0000	3.8000	6.6000	-2.59	-0.90	1.7450	0.0000
5.9700	4.0000	6.8700	-2.09	-0.73	1.6480	20.0000
20.3500	4.4000	7.4000	-1.10	-0.27	1.4440	50.0000
27.5600	4.7000	7.9700	-0.52	0.17	1.3470	60.0000
37.1800	5.0000	8.4600	-0.25	0.68	1.2220	70.0000
50.3600	5.4000	8.8400	0.31	1.81	1.0460	80.0000
69.5400	6.2200	10.1000	1.13	2.84	0.7450	90.0000

mole % DMSO

pK_a of HOMO₃⁻pK_a of ClCH₂PO₃H⁻k_P=k₂ (M⁻¹min⁻¹)
w/ ClCH₂PO₃⁻²k_{Mo} = k₂ (M⁻¹min⁻¹)
w/ MoO₄⁻²