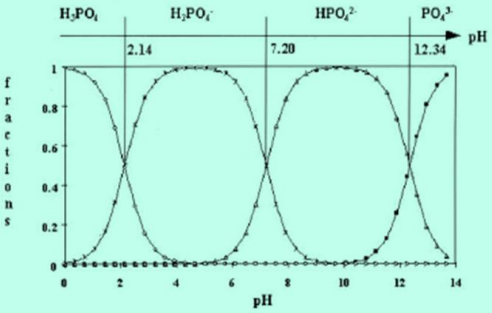
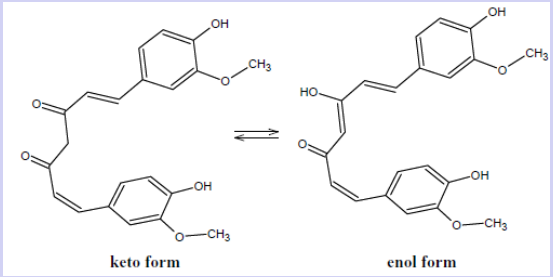
Table 2. Dismutation Equilibria of the Ampholytes in the Systems

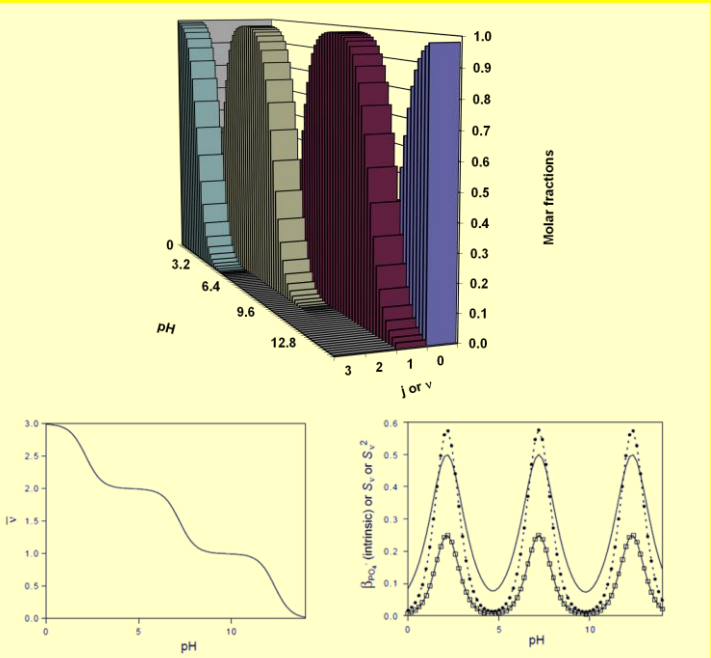
Proton–Phosphates, Manganese(II)–Oxalates (Ox) and Iron(II)–*ortho*-Phenanthroline (*o*-phen) with Corresponding Values of the log of the Equilibrium Constants

Ampholyte	Dismutation Equilibrium	log *K*
HPO_4^{2-}	$2HPO_4^{2-} = H_2PO_4^- + PO_4^{3-}$	−5.1
	$3HPO_4^{2-} = H_3PO_4 + 2PO_4^{3-}$	−15.3
$H_2PO_4^-$	$2H_2PO_4^- = H_3PO_4 + HPO_4^{2-}$	−5.1
	$3H_2PO_4^- = 2H_3PO_4 + PO_4^{3-}$	−15.3
MnOx	$2MnOx = MnOx_2^{2-} + Mn^{2+}$	0.8
	$3MnOx = MnOx_3^{4-} + 2Mn^{2+}$	−1.2
$MnOx_2^{2-}$	$2MnOx_2^{2-} = MnOx_3^{4-} + MnOx$	−2.9
	$3MnOx_2^{2-} = 2MnOx_3^{4-} + Mn^{2+}$	−5.0
$Fe(o\text{-phen})^{2+}$	$2Fe(o\text{-phen})^{2+} = Fe(o\text{-phen})_2^{2+} + Fe^{2+}$	−0.5
	$Fe(o\text{-phen})^{2+} = Fe(o\text{-phen})_3^{2+} + 2Fe^{2+}$	3.78
	$2Fe(o\text{-phen})_2^{2+} = Fe(o\text{-phen})_3^{2+} + Fe(o\text{-phen})^{2}$	4.7
$Fe(o\text{-phen})_2^{2+}$	$3Fe(o\text{-phen})_2^{2+} = Fe(o\text{-phen})_3^{2+} + Fe^{2+}$	9.0



J. Chem. Educ. 1995, 72, 1099-1105.



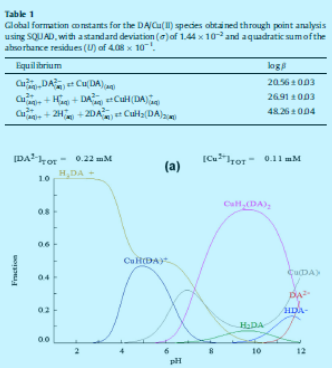


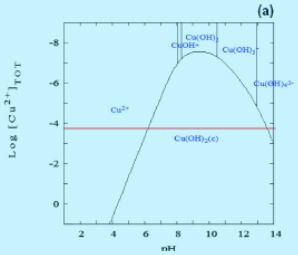
J. Chem. Educ. 2002, 79, 389-392.

Table 3
Comparison between pK_A values reported by Jovanovic et al. [15], and those obtained in the present work using SQUAD

Equilibrium[a]	[15]	SQUAD
$HCur = H^+ + Cur$	10.41 ± 0.05	10.51 ± 0.01
$H_2Cur = H^+ + HCur$	8.55 ± 0.05	9.88 ± 0.02
$H_3Cur = H^+ + H_2Cur$		8.38 ± 0.04

Spectrochim. Acta A.
2004, 60, 1091-1097.



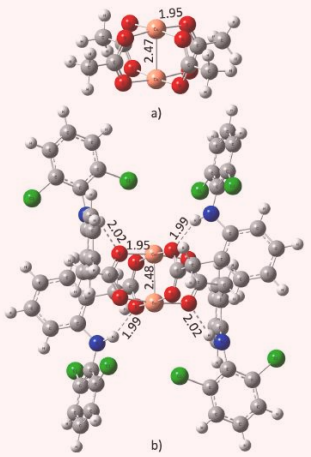


Spectrochim. Acta A.
2015, 143, 187-191.

Table 1
Global stability constants of dimeric and monomeric Cu(II)/L species. $\sigma_{\beta_{ij}}$ is the standard deviation of the constant, *U* is the sum of squared residuals.

L	Stoichiometry	$[Cu_iL_j]^{(2i-j)}$	$log\beta_{ij}$	$\sigma_{\beta_{ij}}$	*U*
AcO	2:2	$[Cu_2AcO_2]^{2+}$	12.81	0.22	3.25×10^{-1}
	2:3	$[Cu_2AcO_3]^{+}$	17.29	0.28	
	2:4	Cu_2AcO_4	21.08	0.28	
Dic	2:2	$[Cu_2Dic_2]^{2+}$	12.96	0.29	4.55×10^{-1}
	2:3	$[Cu_2Dic_3]^{+}$	17.14	0.49	
	2:4	Cu_2Dic_4	21.47	0.41	
AcO	1:2	$CuAcO_2$	8.49	0.02	2.01×10^{-1}
Dic	1:2	$CuDic_2$	9.15	0.04	7.67×10^{-2}

Polyhedron.
2021, 209, 115486.



Propuestas y logros del Área de Química Analítica de la UAM-Iztapalapa

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