LIST OF SYMBOLS

\( \lambda_{\text{max}} \) : Wavelength of maximum absorbance

nm : Nanometer

e : Molar absorptivity (l mol\(^{-1}\)cm\(^{-1}\))

\( \nu \) : Frequency (cm\(^{-1}\))

\([\cdot]\) : Symbol for molar concentration

B : pH meter reading

HA : Unionized form of hydroxamic acid

A\(^-\) : Ionized form of hydroxamic acid

\( K_a \) : Thermodynamic ionization constant

\( pK_a \) : - log \( K_a \)

\( y \) : Activity coefficient of a species in solution

\( y_+ \) : Mean stoichiometric coefficient of a species in solution

\( \rho \) : Hammett's reaction constant

\( \sigma \) : Hammett's substituent constant

M : Central metal atom in compound MA\(_n\)

n : Number of ligands in the compound MA\(_n\)

\( \bar{m} \) : Formation function i.e., the average number of ligands bound to the central metal atom in an equilibrium mixture

\( n_2 \) : Mole fraction of dioxan

MA, MA\(_2\),... : n successive mononuclear complexes

MA\(_n\) : between M and A
\( q_1, q_2, q_3 \): Molar quotients for the formation of MA, MA_2, MA_3.

\( \log K_1, \log K_2, \ldots \): Thermodynamic successive stability constants of the species MA, MA_2, \ldots MA_n.

\( \log \beta_3 \): \( \log K_1 + \log K_2 + \log K_3 \)

\( \log \beta_n \): Thermodynamic overall stability constant

\( U_H \): Antilog \( (-B) / [H^+] \)

\( D \): Dielectric constant of the medium

\( \Delta \): \( B + \log U_H^0 + \log \ 1/y_\pm \)