

# LIST OF SYMBOLS

$\lambda_{\max}$	: Wavelength of maximum absorbance
nm	: Nanometer
$\epsilon$	: Molar absorptivity ( $l \text{ mol}^{-1} \text{ cm}^{-1}$ )
$\nu$	: Frequency ( $\text{cm}^{-1}$ )
[ ]	: 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
$y_{\pm}$	: 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 $MA_n$
$\bar{n}$	: 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, $MA_2, \dots$	: n successive mononuclear complexes
$MA_n$	between M and A

$q_1, q_2, q_3$	: Molar quotients for the formation of MA, MA <sub>2</sub> , MA <sub>3</sub> .
$\log K_1,$ $\log K_2, \dots$ $\log K_n$	: Thermodynamic successive stability constants of the species MA, MA <sub>2</sub> , ..., MA <sub>n</sub>
$\log \beta_3$	: $\log K_1 + \log K_2 + \log K_3$
$\log \beta_n$	: Thermodynamic overall stability constant
$U_H$	: Antilog $(-B)/[H^+]$
D	: Dielectric constant of the medium
$\Delta$	: $B + \log U_H^\circ + \log 1/y_{\pm}$