ABBREVIATIONS AND DEFINITIONS

AF	antiferromagnetic interaction
D	zero field splitting
F	ferromagnetic interaction
acphpn	*N,N′*-bis(2-hydroxyacetophenone)-1,3-diaminopropane
acphen	*N,N′*-bis(2-hydroxyacetophenone)-1,2-diaminoethane
5-Clsalpn	*N,N′*-bis(5-chlorosalicylidene)-1,3-diaminopropane
5-Clsalen	*N,N′*-bis(5-chlorosalicylidene)-1,2-diaminoethane
4-MeOsalen	*N,N′*-bis(4-methoxysalicylidene)-1,2-diaminoethane
(1*R*, 2*R*)-salcy	(*R*, *R*)-*N,N'*-bis(salicylidene)-1,2-diaminocyclohexane
SB	Schiff base
salen	*N,N′*-bis(salicylidene)-1,2-diaminoethane
salpn	*N,N′*-bis(salicylidene)-1,3-diaminopropane
salmen	*N,N′*-bis(salicylidene)-1,2-diaminopropane
SMM	single molecule magnetism

$R1$ = $\Sigma||F_o| - |F_c|| / \Sigma|F_o|$.

$wR2$ = $[\Sigma w(F_o^2 - F_c^2)^2 / \Sigma(wF_o^4)]^{1/2}$

w^{-1} = $[\sigma^2(F_o)^2 + (AP)^2 + BP]$, $P = [2F_c^2 + \text{Max}(F_o^2, 0)]/3$

S = $[\Sigma\{w(F_o^2 - F_c^2)^2\}/(n\text{-}p)]^{1/2}$

U_{eq} = $1/3(U_{11}a^2a^{*2} + U_{22}b^2b^{*2} + U_{33}c^2c^{*2} + U_{23}b^*c^*bc\cos\alpha + U_{12}a^*b^*ab\cos\gamma + U_{13}a^*c^*ac\cos\beta)$

$$\chi_m = \frac{g^2\,\mu_B^2\,N}{3KT}\,\frac{\sum_i S^i\left(S^i+1\right)n^i\,e^{-Ei/kT}}{\sum_i n^i\,e^{-Ei/kT}}$$

(*Dimer equation*)

$$\chi_m = \frac{N g^2 \mu_B^2\, S(S+1)}{3k(T-\theta)}\,\frac{[1-u(y)]}{[1+u(y)]}$$

(*Antiferromagnetic chain equation*)