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LIST OF ABBREVIATIONS

Symbols and Abbreviations	Full Words/Definitions
...	Non-covalent interaction or non-bonded interatomic separation
Å	Angstrom
λ	Lambda
ν	Wavenumber (cm^{-1})
ϵ	Absorption coefficient
χ_M^T	Magnetic susceptibility as a function of temperature
χ_M	Magnetic susceptibility equal to M/H per mole of the complex
S	Overall spin state of the molecular substance
T	Temperature
P	Paring energy
Δ_{oct}	Ligand field splitting parameter
t_{2g}	triply degenerate orbital level
e_g	Doubly degenerate orbital level
Σ	Sigma/Octahedral distortion parameter
Θ	Theta/ Trigonal twist
O_h	Octahedral
D_{3h}	Trigonal prismatic
ϕ_i	Ligand-metal-ligand angles
θ_i	Pseudo-threefold axis
γ_{HS}	High spin fraction
ca.	Approximately

LIST OF ABBREVIATIONS (Continued)

Symbols and Abbreviations	Full Words/Definitions
Cl^-	Chloride ion
Br^-	Bromide ion
I^-	Iodide ion
NO_3^-	Nitrate ion
ClO_4^-	Perchlorate ion
NO	Nitric oxide
CN	Cyanide
NCS	Thiocyanate
PF_6^-	hexafluorophosphate
Bh_4^-	Tetraphenylborate
FT-IR	Fourier Transform Infrared
UV-Vis	Ultraviolet-Visible
PXRD	Powder X-ray diffraction
SQUID	Superconducting Quantum Interference Device
SCO	Spin crossover
ST	Spin transition
HS	High spin
LS	Low spin
mHS	Mostly high spin
salBzen-5-OMe	2-[[2-(benzylamino)ethylimino]methyl} phenolate
salPren-5-OMe	2-[[2-(propylamino)ethylimino]methyl} phenolate
OMe	Methoxy

LIST OF ABBREVIATIONS (Continued)

Symbols and Abbreviations	Full Words/Definitions
salRen	N-Alkylaminoethylamine and a salicylaldehyde derivative
salEen	2-[[2-(ethylamino)ethylimino]methyl]-4-phenolate
LIESST	light-induced excited spin state trapping
EF	Two edge-to-face
OFF	Offset face-to-face
P4AE	Parallel fourfold aryl embraces
DMF	Dimethylformamide
EtOH	Ethanol
CHCl ₃	Chloroform
CH ₂ Cl ₂	Dichloromethane
Oe	Oersteds
d _{norm}	Distances normalized
E°'	Electrode potential measured at 1 atmosphere pressure
AgCl	Silver chloride
LiCl	Lithium chloride
CaH ₂	Calcium hydride
[Fe(η -C ₅ H ₅) ₂]	Ferrocene
[N- <i>n</i> Bu ₄][PF ₆]	Tetrabutylammonium hexafluorophosphate.
LMCT	Ligand-to-metal charge transfer
et al	et alia, in Latin meaning “and others”