Dinuclear Cobalt(II) Complexes of an Acyclic Phenol-Based Dinucleating Ligand with Four Methoxyethyl Chelating Arms − First Magnetic Analyses in an Axially Distorted Octahedral Field

Hiroshi Sakiyama,* Rie Ito, Hitoshi Kumagai, Katsuya Inoue, Masatomi Sakamoto, Yuzo Nishida, and Mikio Yamasaki

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In the paper, we used the effective spin s when the magnetic exchange was considered, thus we should have used (5/3)$\boldsymbol{s}$ instead of $\boldsymbol{S}$. At this stage the Hamiltonian will be $\boldsymbol{H} = -(3/2)\kappa\ \lambda\ \boldsymbol{L}\cdot\boldsymbol{S} + \beta[-(3/2)\kappa\ \boldsymbol{L} + g_e\boldsymbol{S}]\cdot\mathrm{H} - (25/9)\ J\ \boldsymbol{s}_1\cdot\boldsymbol{s}_2$, and the magnetic susceptibility equation will be as follows:

$$\chi_A = \frac{\chi_z + 2\chi_x}{3}$$

$$\chi_{z(x)} = N\frac{\sum_{n=\pm1}\left(\frac{E^{(1)}_{z(x),n}}{kT}\right)^2 - 2E^{(2)}_{z(x),n}\exp\left[\frac{-E^{(0)}_n + \frac{25J}{36}}{kT}\right] + \sum_{n\neq\pm1}\left(\frac{E^{(1)}_{z(x),n}}{kT}\right)^2 - 2E^{(2)}_{z(x),n}\exp\left[\frac{-E^{(0)}_n}{kT}\right]}{\frac{1}{4}\sum_{n=\pm1}\exp\left[\frac{-E^{(0)}_n - \frac{75J}{36}}{kT}\right] + \frac{3}{4}\sum_{n=\pm1}\exp\left[\frac{-E^{(0)}_n + \frac{25J}{36}}{kT}\right] + \sum_{n\neq\pm1}\exp\left[\frac{-E^{(0)}_n}{kT}\right]}$$

Magnetic parameters were calculated based on the equation set, and Table 3 should be changed as shown below.

Table 3. Magnetic data for complexes **1** and **2**

Complex	κ	λ/cm^{-1}	Δ/cm^{-1}	J/cm^{-1}	g_z	g_x	D/cm^{-1}	$R(\chi_A)/10^{-3}$	$R(\mu_{eff})/10^{-4}$
1	0.98	−134	749	−0.55	2.18	4.99	120	0.12	0.89
2	0.84	−138	440	−0.70	2.45	4.84	144	1.7	1.6

Corrected supporting information is available on the WWW under http://www.eurjic.com or from the author.

H. Sakiyama
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