Electronic Supplementary Information for Dalton Transactions

[Supporting Information]

Excellent chiralselectivity in sulfur-bridged $Co^{III}MCo^{III}$ (M = Ni^{II} and Pd^{II}) trinuclear complexes containing 1,2-cyclohexanediamine

Asako Igashira-Kamiyama,[a] Toshihiro Tamai,[a] Tatsuya Kawamoto[b] and Takumi Konno[*a]

[a] *Department of Chemistry, Graduate School of Science, Osaka University, Toyonaka, Osaka 560-0043, Japan*

[b] *Department of Chemistry, Faculty of Science, Kanagawa University, Hiratsuka, Kanagawa 259-1293, Japan*

* To whom correspondence should be addressed.
E-mail: konno@chem.sci.osaka-u.ac.jp

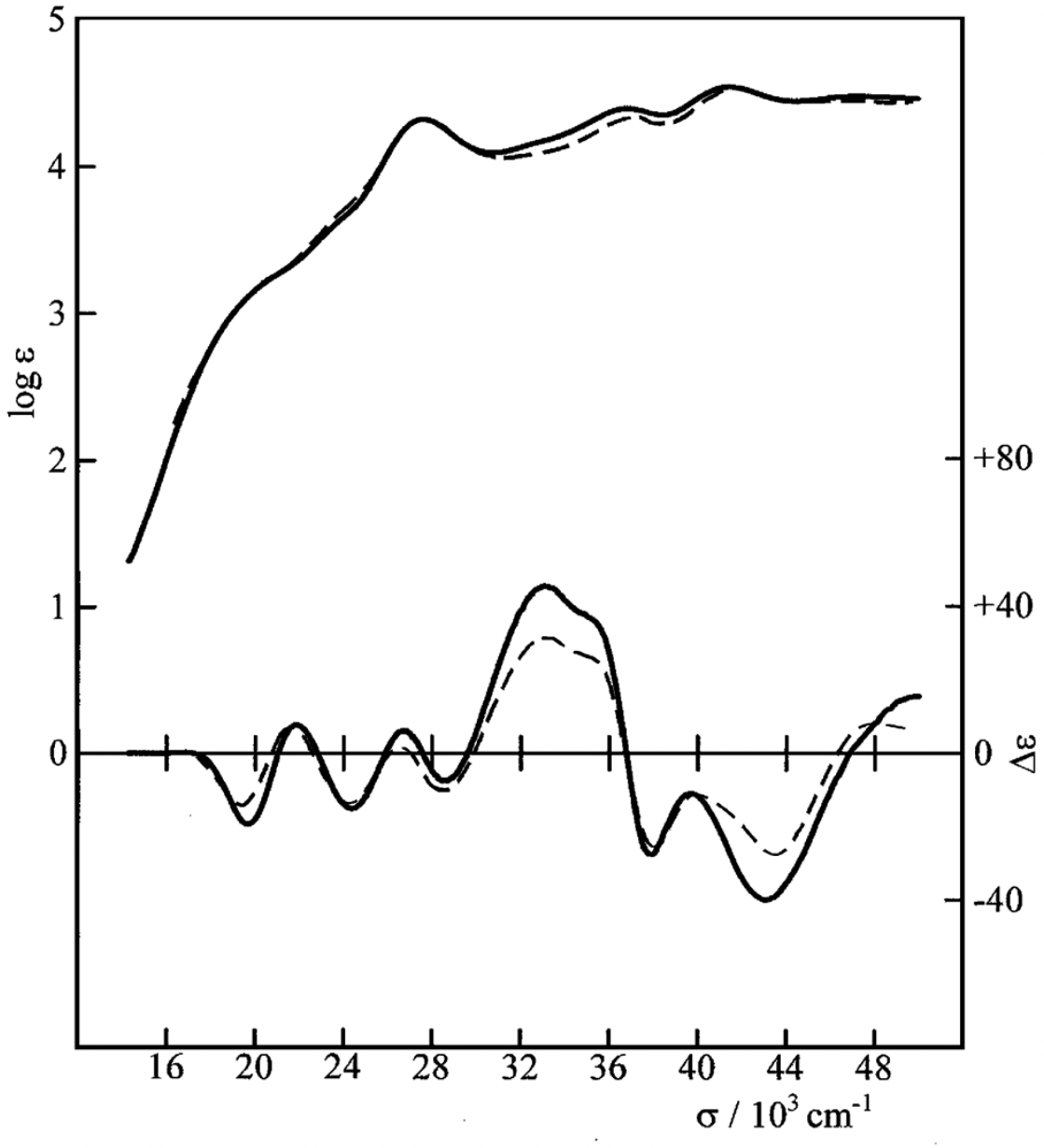

Figure S1 Electronic absorption and CD spectra of $\Delta_{RR}\Delta_{RR}$- $[Ni\{Co(aet)_2(R,R\text{-chxn})\}_2]^{4+}$ ($[\mathbf{1a}]^{4+}$) (———) and $[Ni\{Co(aet)_2(en)\}_2]^{4+}$ (– – –).

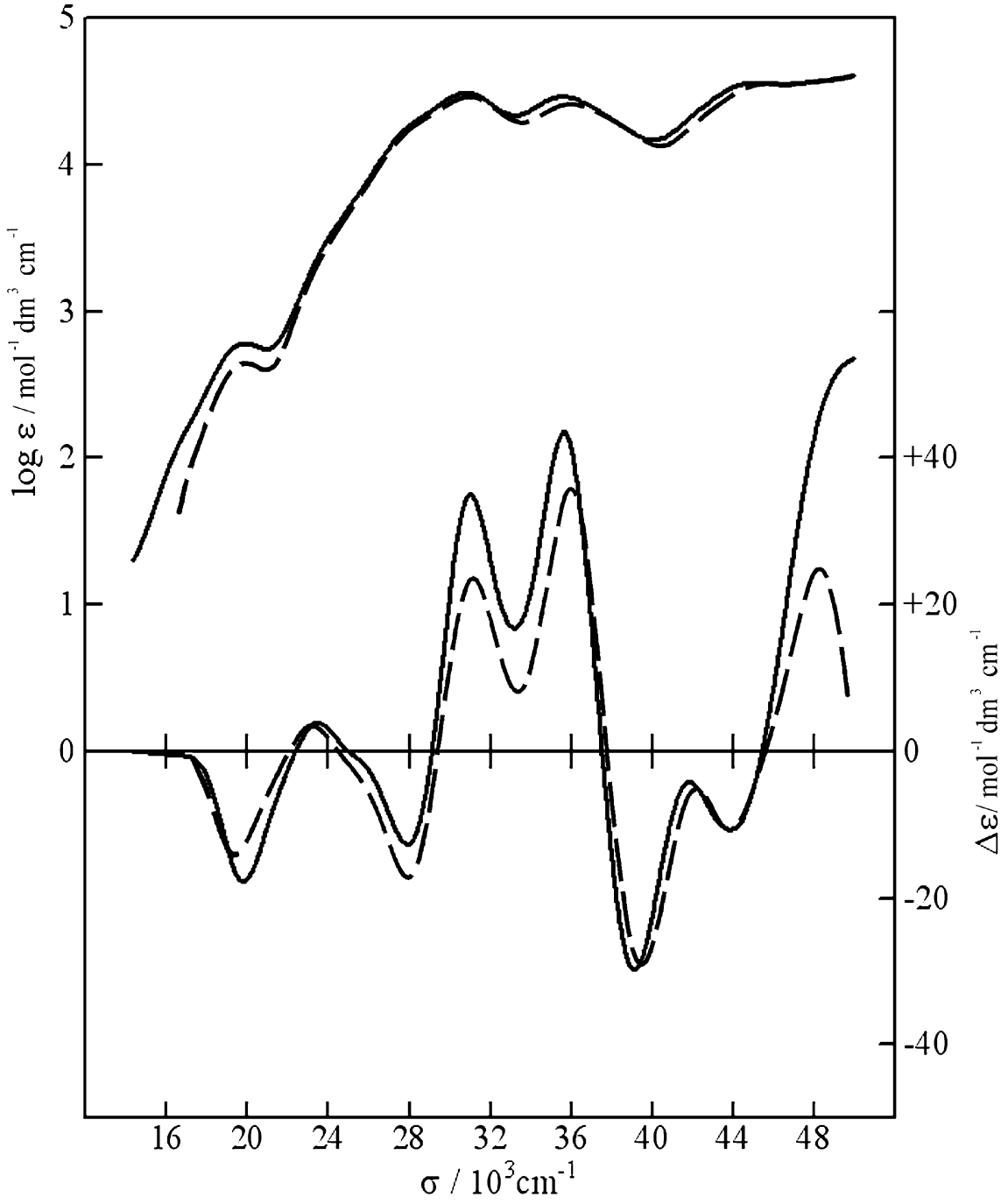

Figure S2 Electronic absorption and CD spectra of $\Delta_{RR}\Delta_{RR}$-[Pd{Co(aet)$_2$(*R*,*R*-chxn)}$_2$]$^{4+}$ ([**2a**]$^{4+}$) (———) and ΔΔ-[Pd{Co(aet)$_2$(en)}$_2$]$^{4+}$ (– – –).

Table S1 Absorption and CD Spectral Data for $[\mathbf{1a}]^{4+}$ and $[\mathbf{2a}]^{4+}$.

	log ε for abs		$\Delta\varepsilon$ for CD
abs max:	max / mol^{-1}	CD extrema:	extrema / mol^{-1}
σ / 10^3 cm^{-1}	dm^3 cm^{-1}	σ / 10^3 cm^{-1}	dm^3 cm^{-1}
		$[\mathbf{1a}]^{4+}$	
19.5	3.1^{sh}	19.69	–19.33
23.8	3.7^{sh}	21.83	+7.71
27.62	4.31	24.37	–15.15
36.83	4.38	26.70	6.11
41.49	4.52	28.65	–7.50
		33.05	+45.51
		35.4	+35.6^{sh}
		37.94	–27.67
		43.03	–40.00
		$[\mathbf{2a}]^{4+}$	
19.92	2.78	19.76	–17.7
23.8	3.7^{sh}	23.49	+3.9
27.7	4.2^{sh}	27.95	–12.7
30.82	4.48	31.04	+35.0
35.59	4.47	35.61	+43.6
45.15	4.56	39.12	–29.7
		43.86	–10.7

The sh label denotes a shoulder.

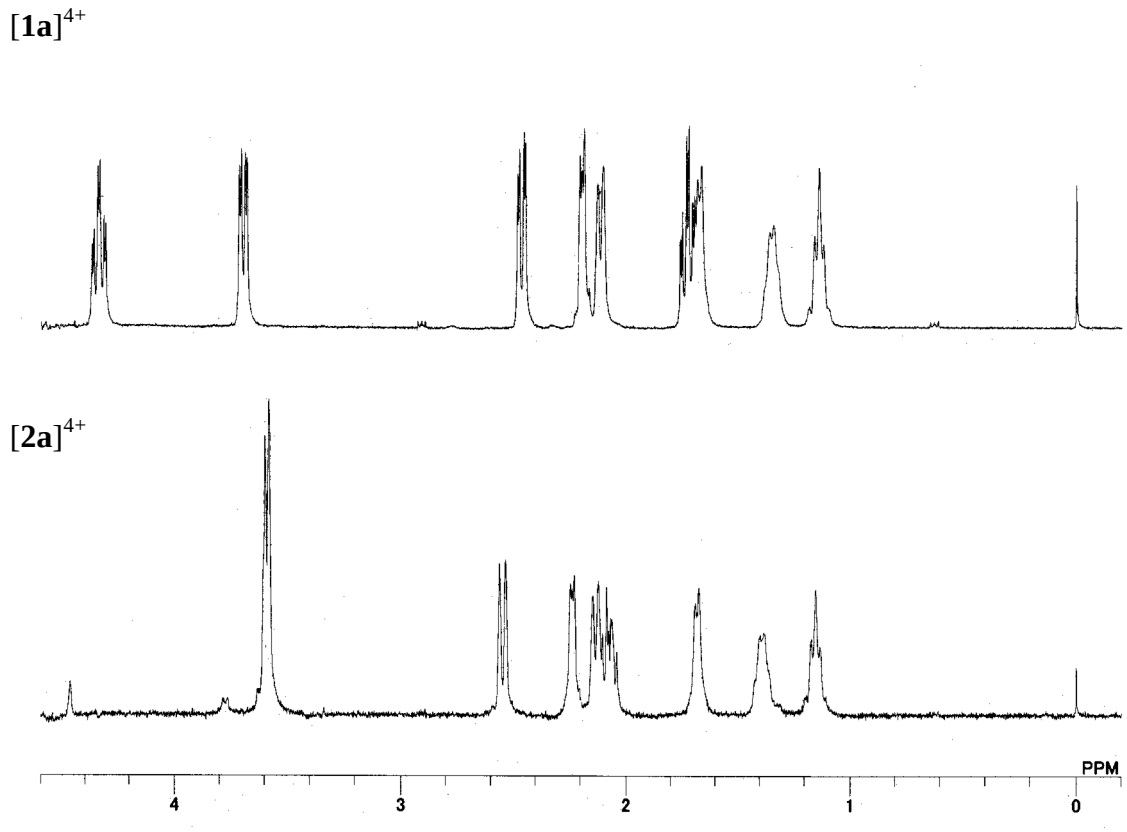

Figure S3 ^{1}H NMR spectra of [**1a**]$^{4+}$ and [**2a**]$^{4+}$ in D_2O.