

Supporting Information

“Gold(III) Dithiocarbamate Derivatives for the Treatment of Cancer: Solution Chemistry, DNA Binding and Hemolytic Properties”

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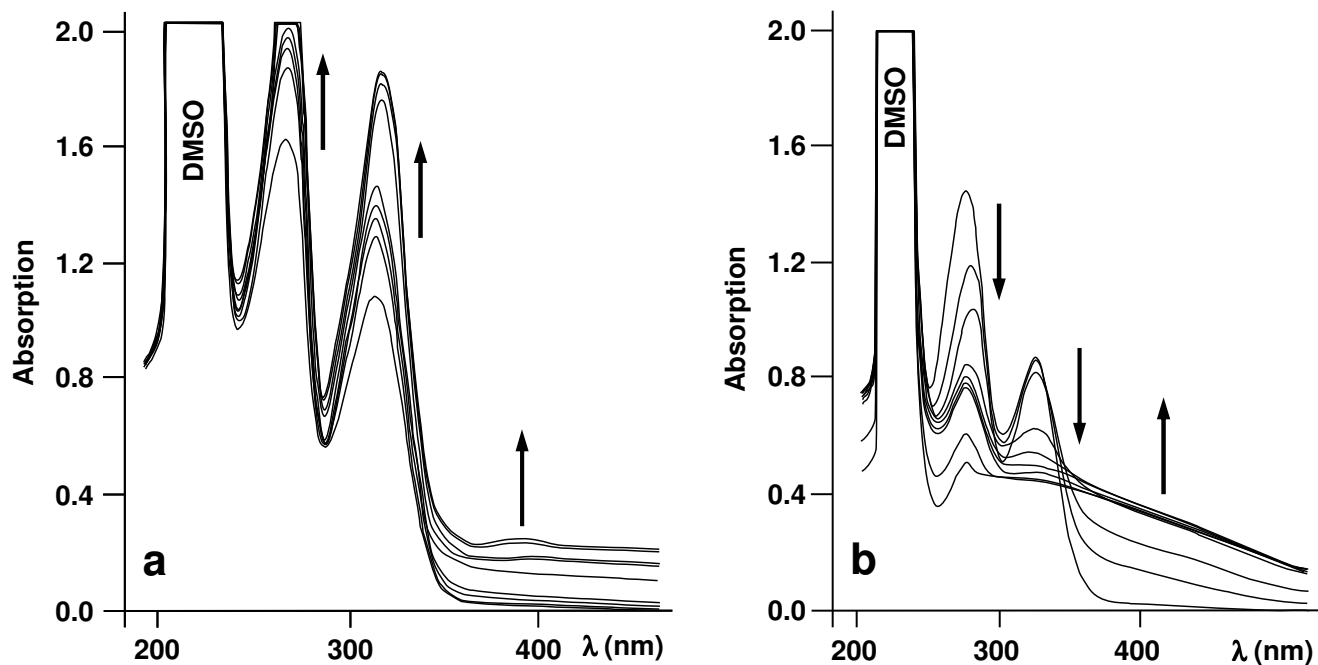
- FT-IR spectral data of the hydrolysis derivatives of complex **4**.
- UV/Vis spectra with time of **1** and **4** in DMSO/PBS solution.
- Hydrolysis profile of **2** at 310 K.
- cyclic voltammograms of **1** and **4** in DMSO.
- Inhibition of DNA and RNA synthesis.
- Detection of DPC induced by **4** (alkaline elution experiments).

Selected IR frequencies of the various species obtained by maintaining compound **4** in PBS solution (cm^{-1}).

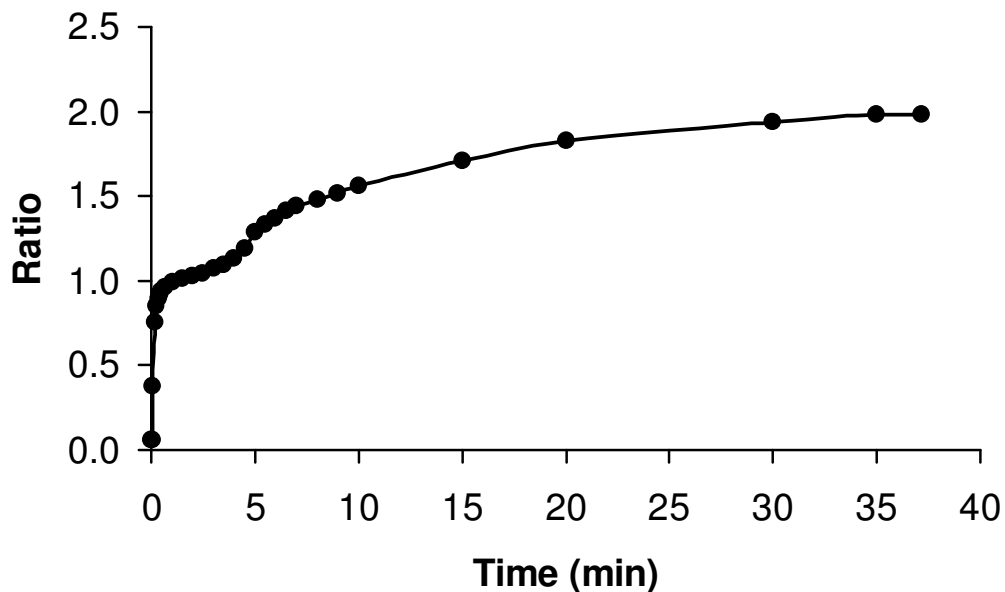
Compound	Color	Vibrational modes				
		$\nu(\text{OH})$	$\nu(\text{N-CSS})$	$\nu_{\text{a,s}}(\text{SCS})$	$\nu_{\text{a,s}}(\text{SAuS})$	$\nu_{\text{a,s}}(\text{X Au X})$
4	reddish-brown	-	1560	1001, 575	406, 382	251, 228 ^a
$[\text{Au}(\text{ESDT})(\text{OH})_2]$	yellow	3436	1563	1000, 573	408, 384	423, 331 ^b
$[\text{Au}(\text{ESDT})]_2$	brown-violet	-	1481	1017, 499	341, 321	-

^aX = Br. ^bX = OH.

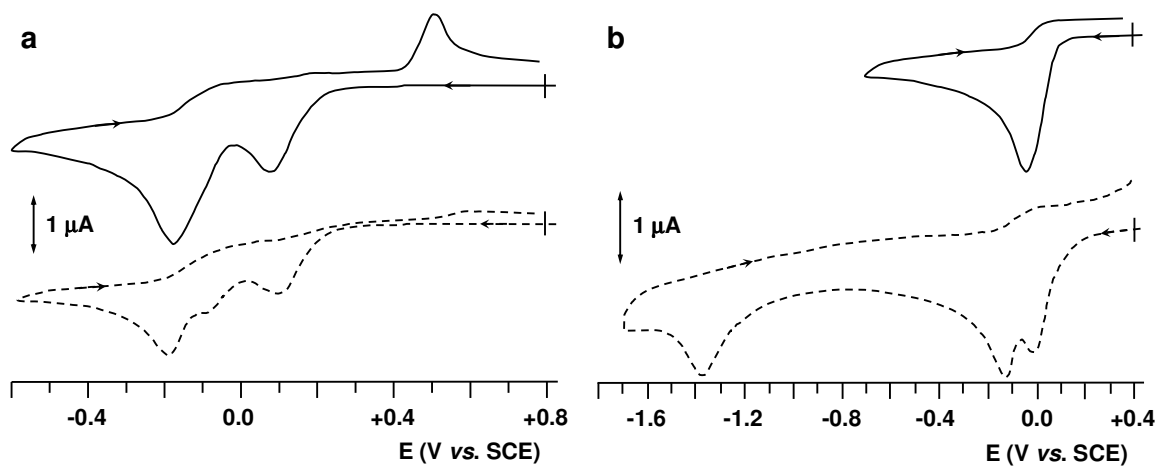
Electronic spectra with time of selected gold(III) dithiocarbamate complexes 100 μM in DMSO/PBS solution at 298 K. (a) UV/Vis spectrum of **1** within 48 h. (b) UV/Vis spectrum of **4** within 5 h.



Pattern of halide release of **2** at 310 K in DMSO/phosphate buffered solution (pH 7.4) expressed as the molar ratio delivered halide/starting complex amount vs. time, monitored by potentiometric measurement of halide ion concentration with halide ISE.

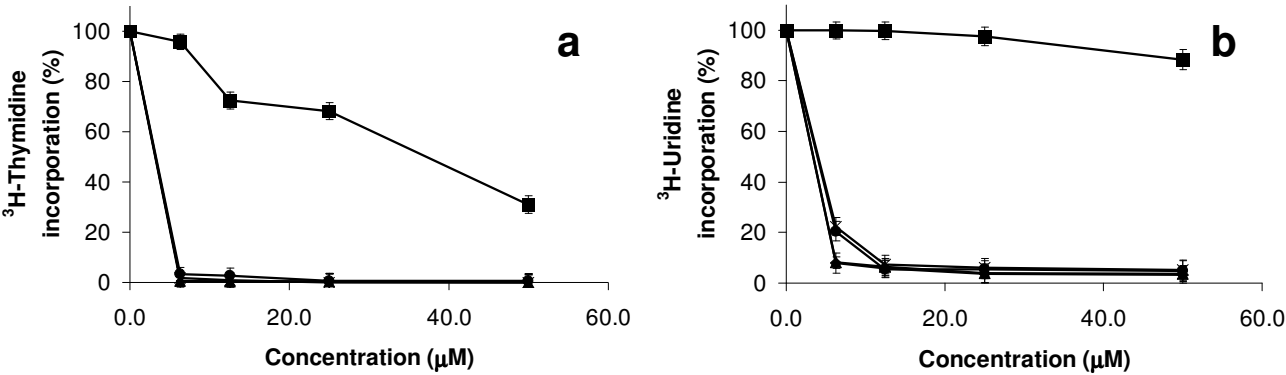


Cyclic voltammograms recorded in DMSO solution at 298 K at both glassy-carbon (—) and platinum (---) electrodes. (a) Cyclic voltammogram of **1** (1.2×10^{-3} mol dm⁻³). (b) Cyclic voltammogram of **4**



(1.0×10^{-3} mol dm⁻³).

Inhibition of macromolecular synthesis in HL60 cells incubated for 3 h with increasing concentrations of cisplatin (■), 1 (◆), 2 (▲), 3 (×) and 4 (●). Bars represent the corresponding standard deviations. (a) Inhibition of DNA synthesis. (b) Inhibition of RNA synthesis.



DPC detection by alkaline elution in HL60 cells treated with 25 μM cisplatin (■) or 4 (●), and then exposed to 30 Gy γ rays. Control cells (○) were only exposed to 30 Gy γ rays.

