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(1) Transient absorption spectrum ($2^{\bullet+}$ and 2).

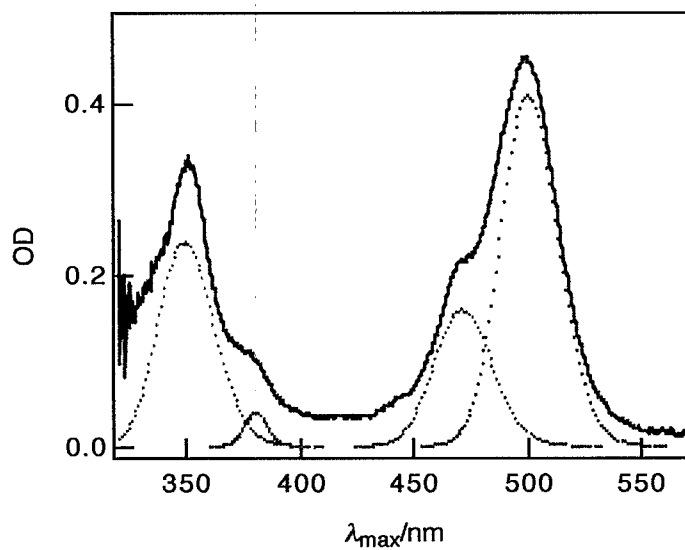


Figure S1. Transient absorption spectrum observed at 200 ns (—) after excitation (XeCl-excimer, 308 nm) of a CH_3CN solution of containing **1** (3 mM) and TCNB (0.8 mM) at room temperature, and its waveform solution (····). Absorption maxima at 380 and 471 nm are due to $\text{TCNB}^{\bullet-}$.

(2) The PAC waveforms for 1-DCA-BP system.

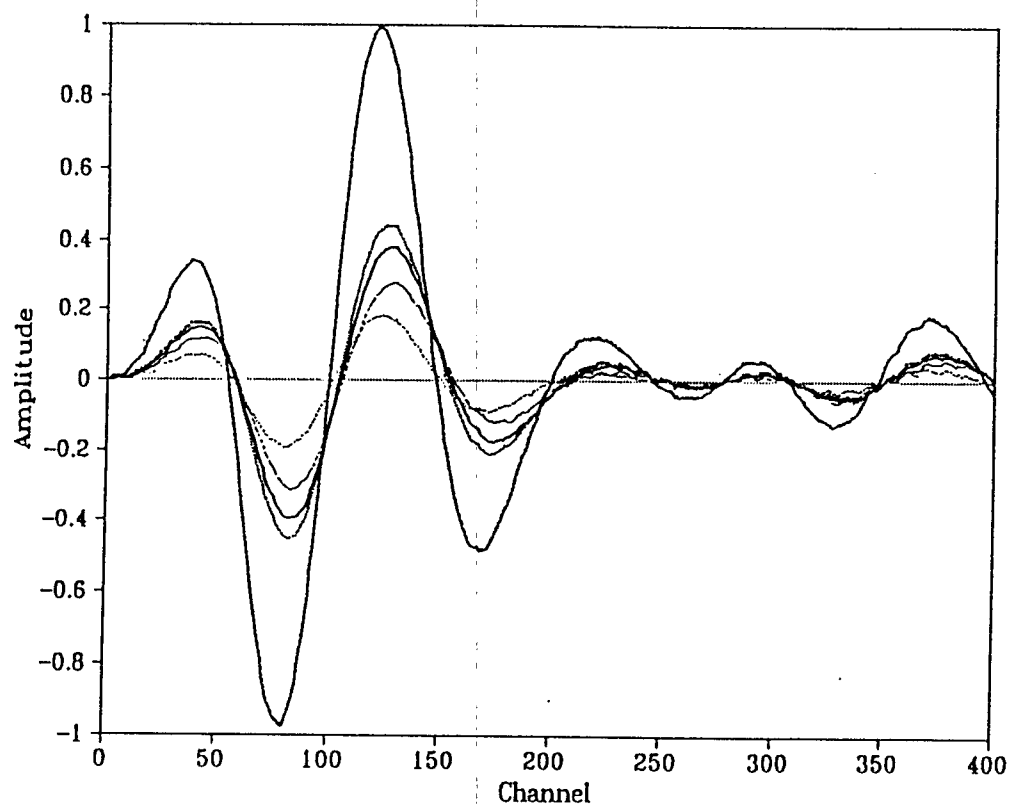


Figure S2. The PAC waveforms for 1-DCA-BP systems in CH_3CN .

(3) Deconvolution fitting parameters for the PAC waveforms.

Table S1. Deconvolution Fitting Parameters for Experimental Waveforms for 1-DCA-BP System in CH₃CN.^a

run	α_1	α_2	τ_2/ns	Φ	$\Delta H_{\text{irr}}(2^+/\text{DCA}^{\cdot-})$ kcal/mol
1	0.2225	0.3250	371	0.8354	36.87
2	0.2660	0.2645	188	0.8354	38.25
3	0.2910	0.2475	127	0.8354	37.60
4	0.2230	0.3300	371	0.8341	36.47
5	0.2650	0.2685	186	0.8341	38.07
6	0.2900	0.2520	126	0.8341	37.37
7	0.2340	0.3320	381	0.8243	35.83
8	0.2740	0.2755	194	0.8243	37.20
9	0.3160	0.2410	140	0.8243	36.58
10	0.2410	0.3240	400	0.8243	35.92
11	0.2890	0.2605	206	0.8243	37.20
12	0.3390	0.2190	153	0.8243	36.49
<hr/>					
	0.27 ± 0.03	0.28 ± 0.04	237 ± 110	0.83 ± 0.01	37.0 ± 0.8

^aThe errors are 1 σ .

(4) The Curie plot for **2**.

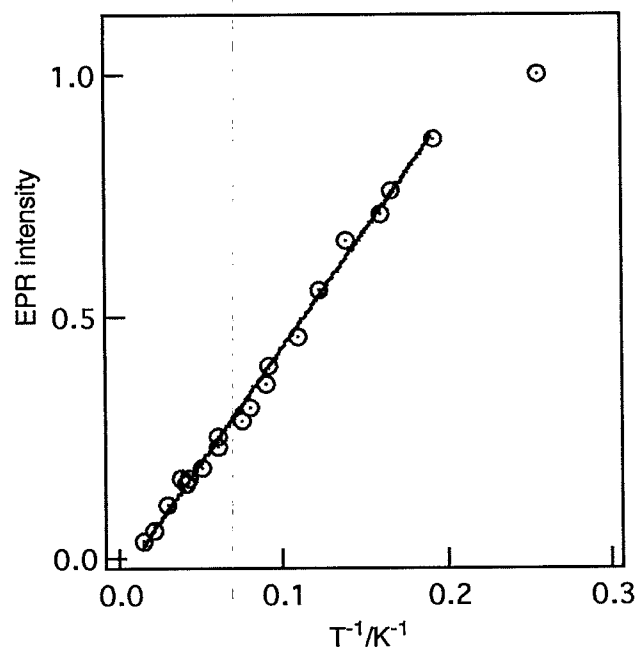


Figure S3. The Curie plot for the signal intensity of $|\Delta M_s| = 2$ transition (0.1673 T) of **2** under the anthraquinone-sensitized conditions in CH_2Cl_2 .