

Supporting Information

Table S1. EPR parameters for $\text{Cu}_2\text{L}^1(\text{ClO}_4)_4$ complex, and its cascade species resulting from simulation using XSophe software.

Complex	$g_{\perp}$	$g_{\parallel}$	$A_{\perp}^a$	$A_{\parallel}^a$	τ	ξ	η	r	J^a
$\text{Cu}_2\text{L}^1(\text{ClO}_4)_4$	2.075	2.407	15	128	10	33	0	8.5	65
$\text{Cu}_2\text{L}^1(\text{oxa})(\text{ClO}_4)_2$	2.068	2.393	15	128	0	20	0	8.5	65
$\text{Cu}_2\text{L}^1(\text{mal})(\text{ClO}_4)_2$	2.067	2.408	15	122	0	20	0	8.5	65
$\text{Cu}_2\text{L}^1(\text{suc})(\text{ClO}_4)_2$	2.069	2.407	15	124	0	20	0	8.5	65
$\text{Cu}_2\text{L}^1(\text{glu})(\text{ClO}_4)_2$	2.066	2.395	13	128	0	20	0	8.5	65

^a (A and J) $\times 10^4 \text{ cm}^{-1}$ and r in Å.

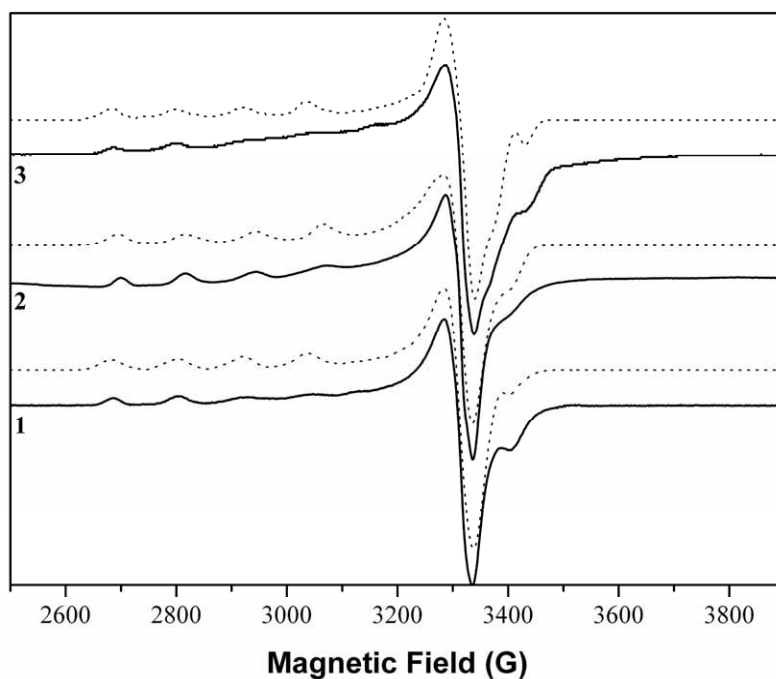


Fig. S1 Experimental (solid) and simulated (dots) EPR spectra of the copper(II) complex and its cascade species. **1)** $\text{Cu}_2\text{L}^1(\text{ClO}_4)_4$ at 106 K 2.70×10^{-3} M in DMSO; **2)** $\text{Cu}_2\text{L}^1(\text{oxa})(\text{ClO}_4)_2$ at 104.9 K and 2.20×10^{-3} M in DMSO; **3)** $\text{Cu}_2\text{L}^1(\text{mal})(\text{ClO}_4)_2$ at 105.0 K and 7.82×10^{-4} M in DMSO. The spectra were recorded at a microwave power of 2.4 mW, modulation amplitude of 1.0 mT and at the frequency (v) 9.4 GHz.