Supporting Information

Gd^{3+}-functionalized gold nanoclusters for fluorescence-magnetic resonance bimodal imaging

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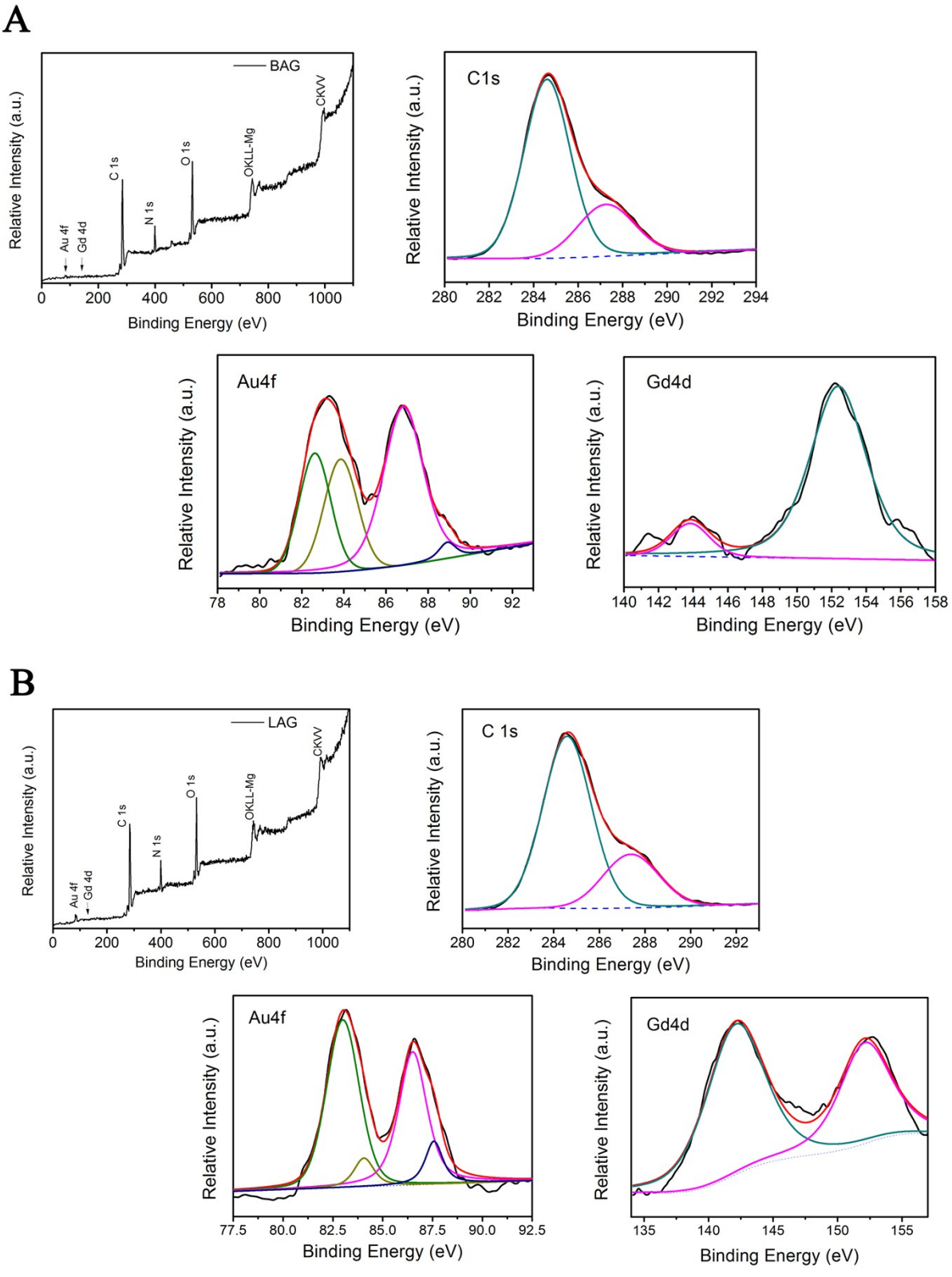

Fig. S1 XPS spectra for (A) BAG and (B) LAG.

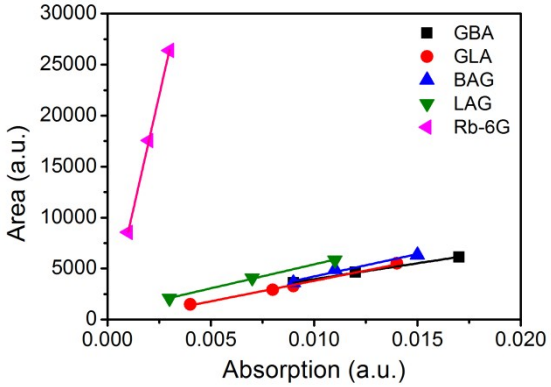

Fig. S2 Determination of the quantum yields (QY) of the four dual function probes by using Rhodamine 6G as a reference. QY of the dual function probes were determined based on the emission peak area and absorbance of the probes and Rhodamin 6G according to the following equation[1]:

$$\varphi_{sample} = \varphi_{ref} \times \frac{F_{sample}}{F_{ref}} \times \frac{A_{ref}}{A_{sample}}$$

Where φ_{ref} is the known QY of reference compound, F_{sample} and F_{ref} are the integrated areas of fluorescence of the samples and reference at 550-850 nm following excitation at 510 nm, respectively. A_{ref} and A_{sample} are the absorbance of the reference and samples at excitation wavelength (510 nm). The data points were plotted to obtain the QYs of the probes.

Table S1 T_1s of samples in Fig.3A (3 T, 25°C)

[Gd] (mM)		0.5	0.4	0.3	0.2	0.1
T_1 (ms)	BAG	188.0	228.2	303.4	429.8	720.3
	GBA	198.2	240.9	322.6	425.9	722.0
	LAG	209.1	253.5	327.5	459.5	758.4
	GLA	309.5	380.5	463.6	637.0	979.6
	Gd-DTPA	416.1	487.9	610.0	745.0	1233.5A