Supporting Information

Efficient and selective removal of Pb(II) from aqueous solution by thioether-functionalized lignin-based magnetic adsorbent

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Table S1 Contents of carbon, hydrogen and sulfur elements in Fe_3O_4 MNPs, SMNP and L@MNP from elemental analysis

Sample	Element content (%)		
	Carbon	Hydrogen	Sulfur
Fe_3O_4 MNPs	1.12	0.82	-
SMNP	1.67	0.63	0.97
L@MNP	4.96	0.85	0.09

Table S2 Elemental analysis and XPS carbon element content analysis of L@MNP

Sample	Element content of carbon (%)	
	Elemental analysis	XPS
L1@MNP	5.52	63.14

Table S3 Surface contents of carbon, oxygen and sulfur elements in L@MNP from XPS

	Element content (%)			S/O
	Carbon	Oxygen	Sulfur	
L@MNP	44.63	54.51	0.86	0.0158

Table S4 BET and pore structure analysis of SMNP and L@MNP

Sample	BET (m^2/g)	Pore Volume (cm^2/g)	Pore Size (nm)
SMNP	86.309	0.276	13.160
L@MNP	83.863	0.257	11.905

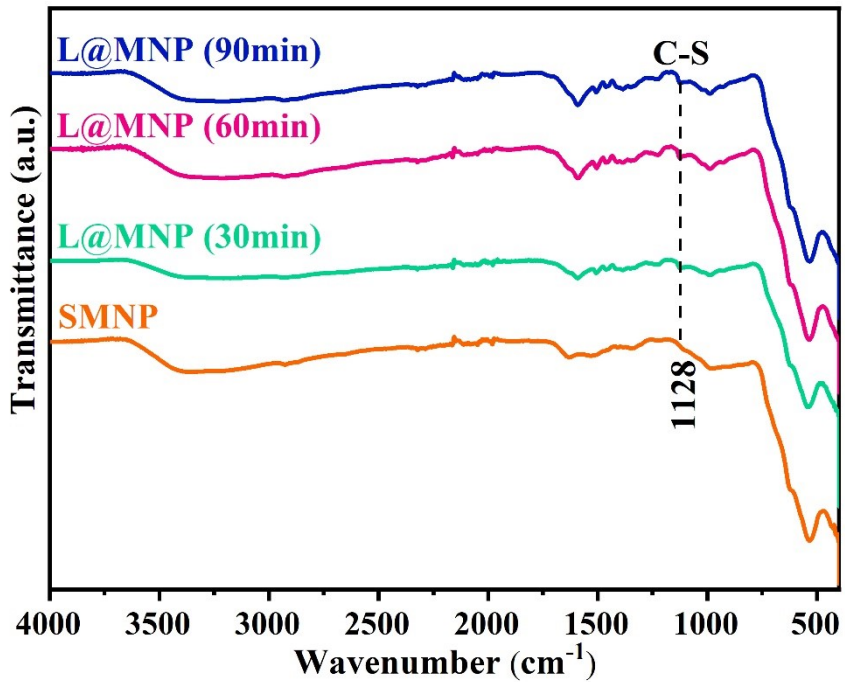

Fig. S1 FT-IR spectra of L@MNP product during the thiol-ene click reaction at different UV irradiation time (30, 60 and 90 min).

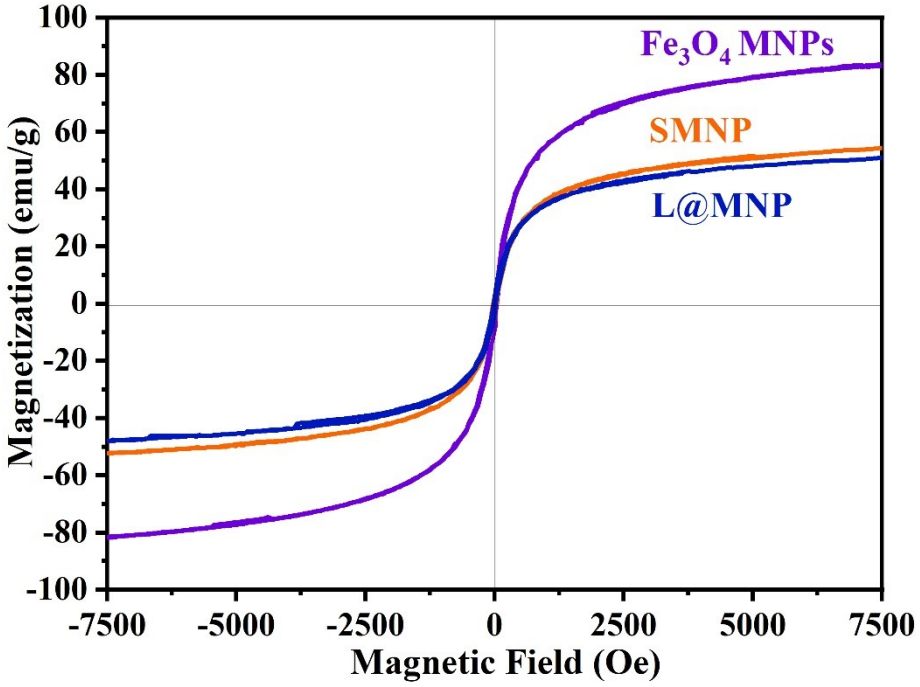

Fig. S2 Magnetization curves of Fe_3O_4 MNPs, SMNP and L@MNP.

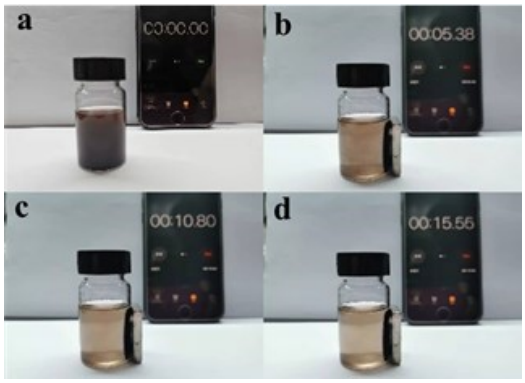

Fig. S3 Experimental process of magnetic separation time.