Electronic Supplementary Materials

For https://doi.org/10.1631/jzus.A2400271

Co-removal potential of heavy metals and dyes from wastewater by simultaneous adsorption with biomass residue formed from microbial treatment of lacquer residue

Xinyue LU[1], Min LIAO[1], Xiaomei XIE[2], Hao QIU[1], Feng YUAN[1], Zhe LUO[1], Chunlin FAN[3]

[1]Zhejiang Key Laboratory of Agricultural Resources and Environment, College of Environmental and Resource Science, Zhejiang University, Hangzhou 310058, China
[2]Experimental Teaching Center, College of Environmental and Resource Science, Zhejiang University, Hangzhou 310058, China
[3]Ningbo Ferno Biotechnology Co., Ltd., Ningbo 315502, China

Table S1 Solid-liquid ratio versus dosage

Dosage (g)	Solid-liquid ratio
0.05	1:300
0.10	1:150
0.20	1:75
0.30	1:50
0.40	1:37.5

Table S2 Concentration combinations of Pb^{2+}-MB/CR composite systems

The initial concentration of MB or CR (mg/L)	The initial concentration of Pb^{2+} (mg/L)		
	50	100	150
50	(50, 50)	(50, 100)	(50, 150)
100	(100, 50)	(100, 100)	(100, 150)
150	(150, 50)	(150, 100)	(150, 150)

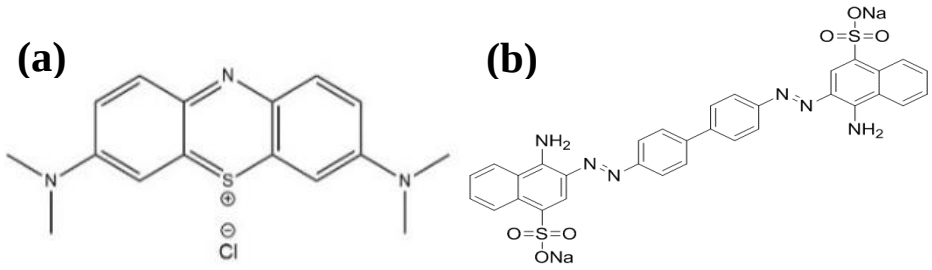

Fig. S1 The structural formulas of MB and CR

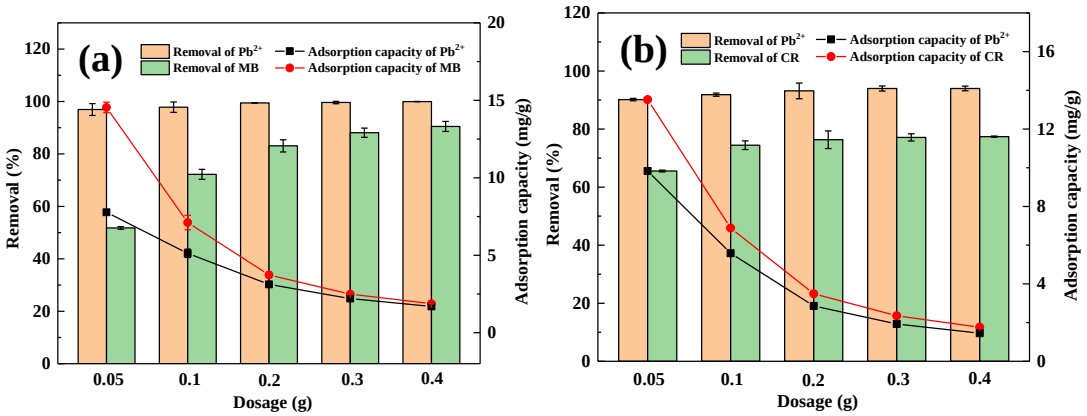

Fig. S2 Effect of dosage of LBM on adsorption of Pb^{2+}-MB (a) and Pb^{2+}-CR(b) composite systems

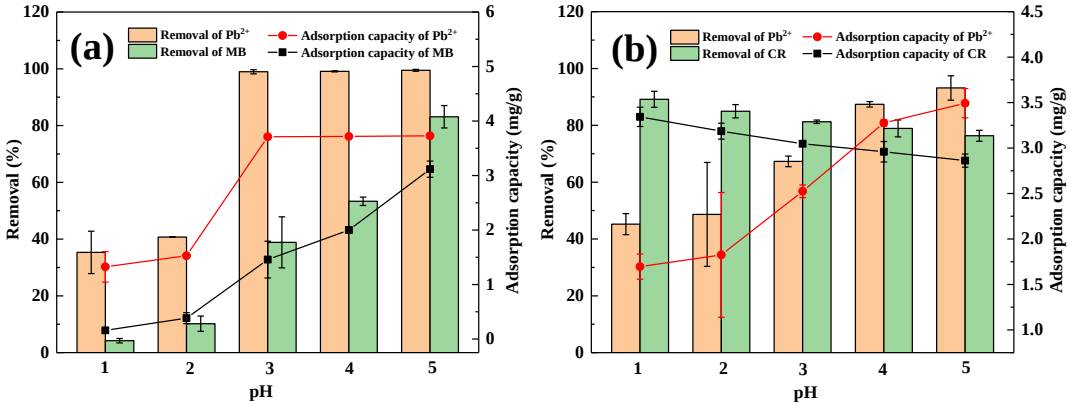

Fig. S3 Effect of system pH on adsorption of Pb^{2+}-MB (a) and Pb^{2+}-CR(b) composite systems

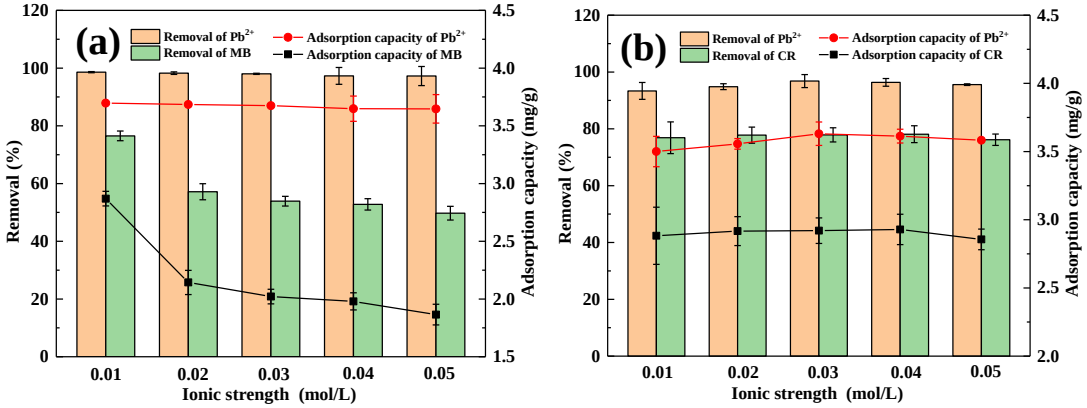

Fig. S4 Effect of ionic strength on adsorption of Pb^{2+}-MB (a) and Pb^{2+}-CR(b) composite systems

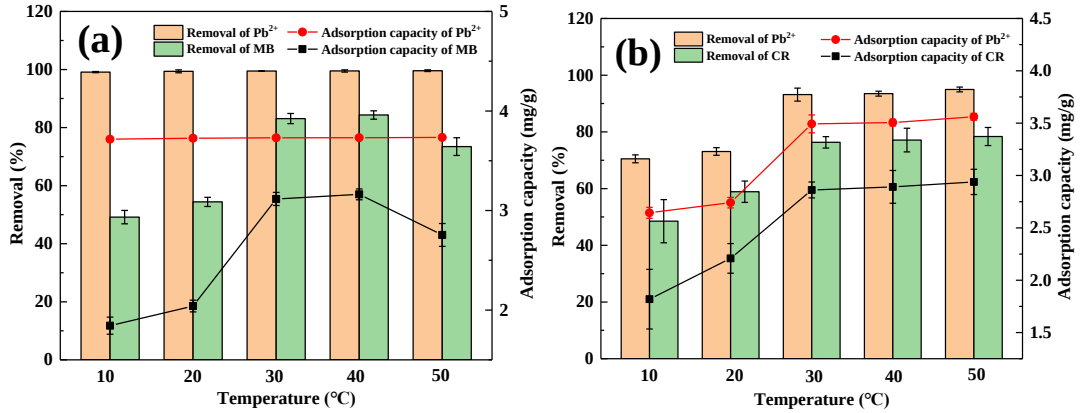

Fig. S5 Effect of temperature on adsorption of Pb^{2+}-MB (a) and Pb^{2+}-CR(b) composite systems

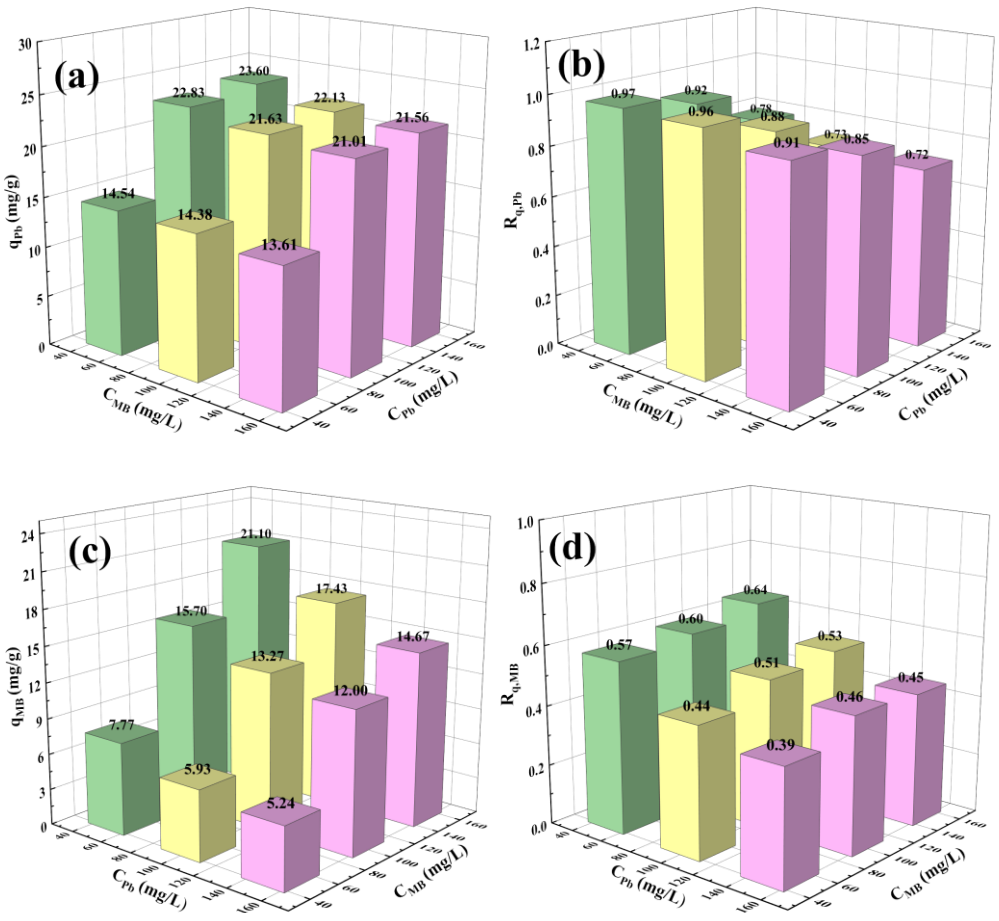

Fig. S6 Interaction between Pb^{2+} and MB in composite system, and their q(a, c) and R_q(b, d) values

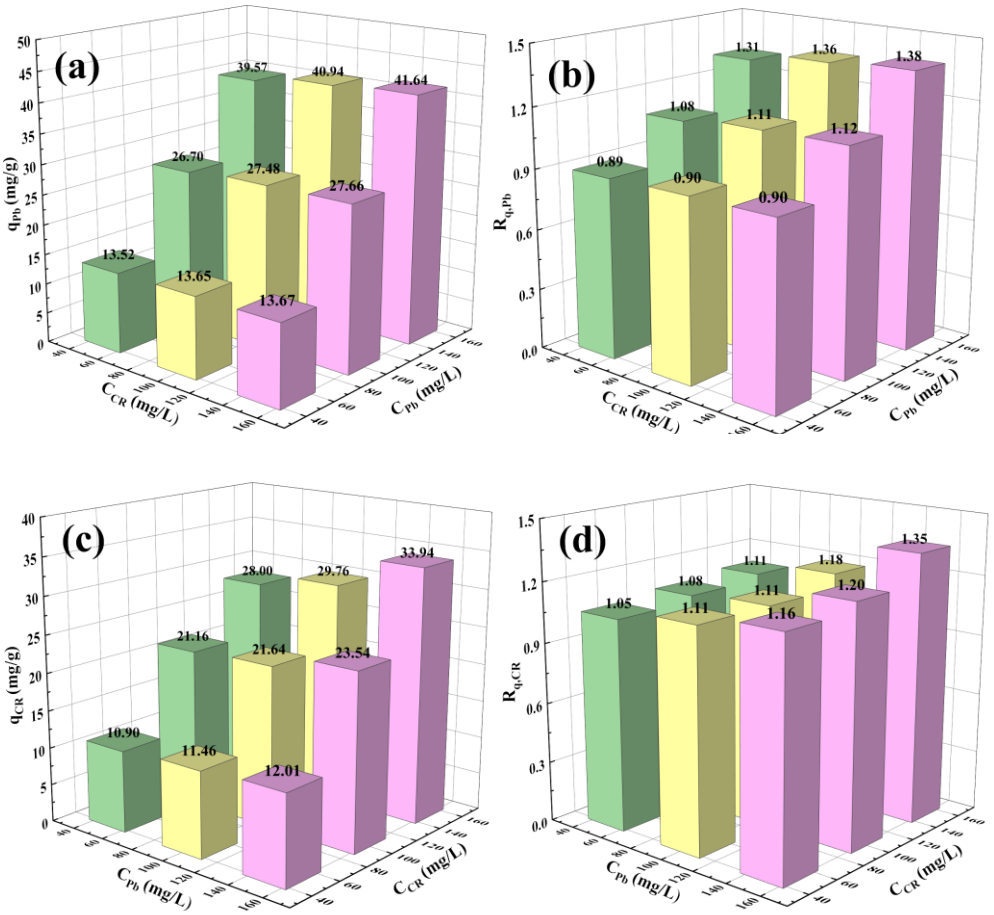

Fig. S7 Interaction between Pb^{2+} and CR in composite system, and their q(a, c) and R_q(b, d) values

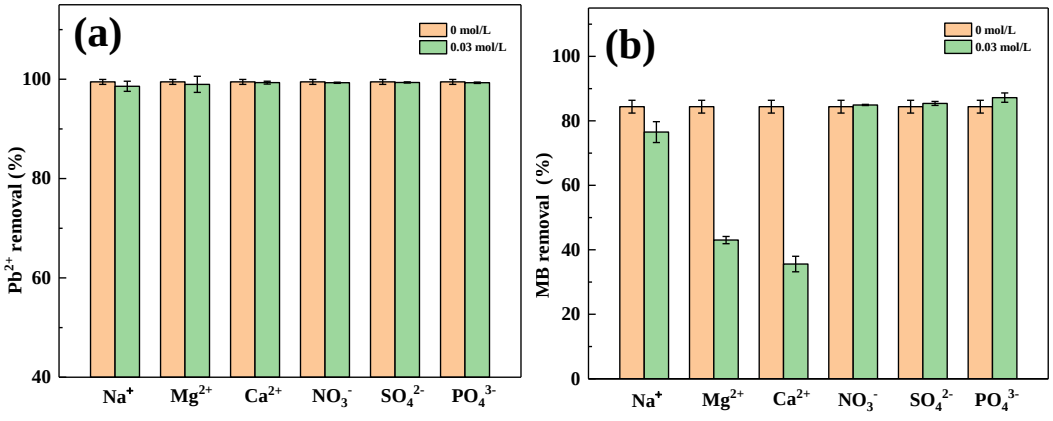

Fig. S8 Effect of coexisting cations (Na^+, Mg^{2+}, K^+) and anions (NO^{3-}, SO_4^{2-}, PO_4^{3-}) on adsorption in Pb^{2+}-MB composite system

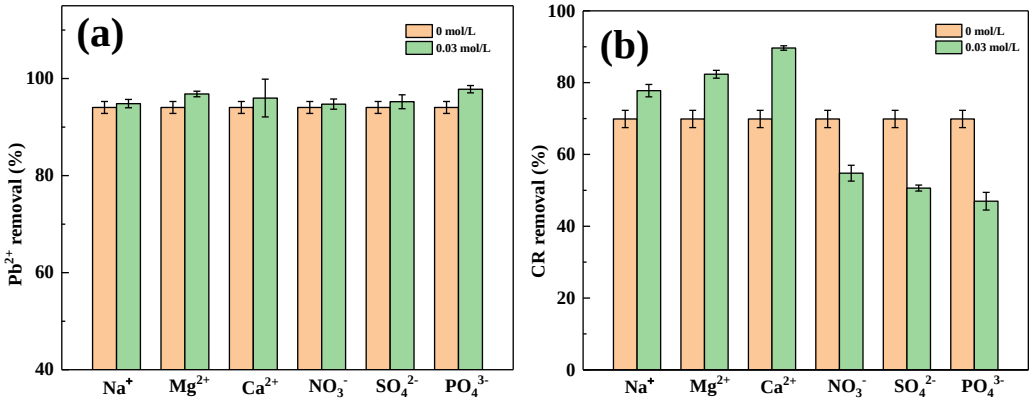

Fig. S9 Effect of coexisting cations (Na^{+}, Mg^{2+}, K^{+}) and anions (NO^{3-}, SO_4^{2-}, PO_4^{3-}) on adsorption in Pb^{2+}-CR composite system

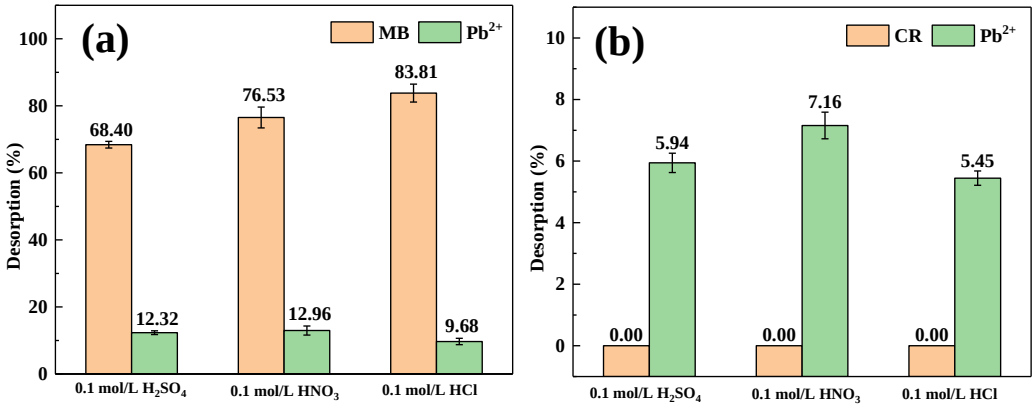

Fig. S10 Desorption efficiency of adsorbed LBM with different desorbents