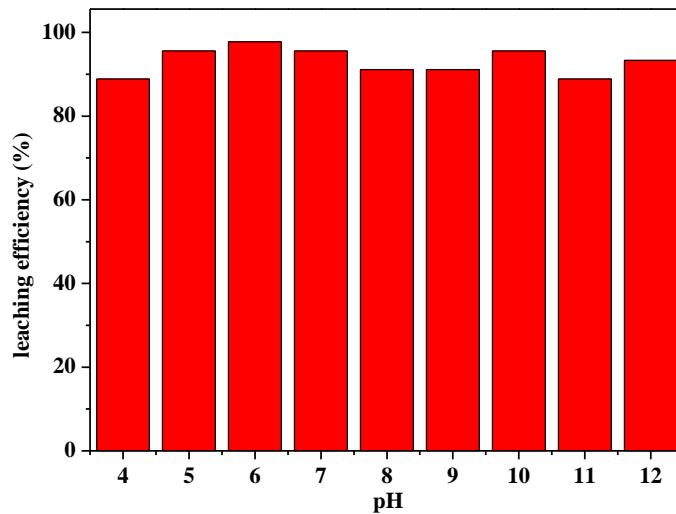


## Supporting Information

**Figure S1.** Leaching efficiency of EDA@ $\beta$ -zeolite.



**Table S1.** Comparison of the Langmuir, Freundlich and D-R adsorption constants of Cu(II) onto  $\beta$ -zeolite and EDA@ $\beta$ -zeolite.

T (K)	pH	Sample	Langmuir model			Freundlich model			D-R model				
			K <sub>a</sub> (L/mol)	q <sub>max</sub> (mol/g)	R <sub>L</sub>	K <sub>F</sub> (mm <sup>1/n</sup> /g)	n	R <sup>2</sup>	K (mol <sup>2</sup> /kg <sup>2</sup> )	q <sup>m</sup> (mol/g)	E (kJ/mol)	R <sup>2</sup>	
298	5.10	$\beta$ -zeolite	8080.28	5.94 $\times$ 10 <sup>-5</sup>	0.55	0.9896	0.06	2.60	0.9025	8.14 $\times$ 10 <sup>-7</sup>	2.26 $\times$ 10 <sup>-4</sup>	247.89	0.9271
		EDA@ $\beta$ -zeolite	1499.07	7.50 $\times$ 10 <sup>-5</sup>	0.87	0.9982	0.05	3.54	0.8908	5.46 $\times$ 10 <sup>-7</sup>	1.93 $\times$ 10 <sup>-4</sup>	302.59	0.9354
	6.10	$\beta$ -zeolite	1632.49	1.25 $\times$ 10 <sup>-4</sup>	0.86	0.9960	0.09	2.36	0.8656	8.19 $\times$ 10 <sup>-6</sup>	5.31 $\times$ 10 <sup>-4</sup>	247.10	0.9072
		EDA@ $\beta$ -zeolite	998.84	1.66 $\times$ 10 <sup>-4</sup>	0.91	0.9985	0.09	2.46	0.9129	5.93 $\times$ 10 <sup>-6</sup>	4.25 $\times$ 10 <sup>-4</sup>	290.26	0.9375
318	5.10	$\beta$ -zeolite	5648.25	7.20 $\times$ 10 <sup>-5</sup>	0.64	0.9967	0.04	3.56	0.9562	5.61 $\times$ 10 <sup>-7</sup>	1.80 $\times$ 10 <sup>-4</sup>	298.66	0.9717
		EDA@ $\beta$ -zeolite	231.20	9.45 $\times$ 10 <sup>-5</sup>	0.98	0.9928	0.03	6.03	0.8374	3.14 $\times$ 10 <sup>-7</sup>	1.72 $\times$ 10 <sup>-4</sup>	399.08	0.8852
	6.10	$\beta$ -zeolite	1346.58	1.57 $\times$ 10 <sup>-4</sup>	0.88	0.9994	0.08	2.77	0.9312	7.13 $\times$ 10 <sup>-6</sup>	5.13 $\times$ 10 <sup>-4</sup>	264.89	0.9594
		EDA@ $\beta$ -zeolite	403.00	2.14 $\times$ 10 <sup>-4</sup>	0.96	0.9986	0.06	4.44	0.9290	4.45 $\times$ 10 <sup>-6</sup>	4.41 $\times$ 10 <sup>-4</sup>	335.27	0.9567