

**Table S1** The concentration of main metallic elements in leaching liquor L<sub>2</sub>

<b>Leaching Condition</b>	<b>Concentration in Leaching Liquor (mg L<sup>-1</sup>)</b>					
	<b>Au</b>	<b>Cu</b>	<b>Fe</b>	<b>Al</b>	<b>Pb</b>	<b>Ni</b>
1 h, 150 g/L, 40 °C	26.41	6.74	13.03	9.47	7.37	0.85
2 h, 150 g/L, 40 °C	24.77	6.72	11.32	9.37	7.52	0.75
3 h, 150 g/L, 40 °C	22.26	7.29	7.85	7.90	7.97	0.84
4 h, 150 g/L, 40 °C	17.75	11.49	7.59	13.37	7.96	0.91
5 h, 150 g/L, 40 °C	14.16	12.00	8.12	11.62	7.52	0.90
2 h, 50 g/L, 40 °C	13.08	6.65	1.69	7.94	7.51	0.73
2 h, 100 g/L, 40 °C	25.27	6.08	1.51	6.86	7.86	0.81
2 h, 200 g/L, 40 °C	20.32	11.02	6.24	9.53	7.21	1.06
2 h, 250 g/L, 40 °C	13.99	15.25	2.97	8.65	7.11	0.85
2 h, 150 g/L, 30 °C	22.14	5.48	6.42	4.74	7.03	0.84
2 h, 150 g/L, 50 °C	14.98	11.57	8.28	9.76	8.02	0.90
2 h, 150 g/L, 60 °C	11.24	20.52	8.34	12.15	8.44	0.92
2 h, 150 g/L, 70 °C	12.33	28.59	13.30	19.97	7.97	1.01