

Table S1. Working parameters of inductively coupled plasma mass spectrometry (ICP-MS).

Table S2. The daily rice intake of residents of different gender and age population groups in China.

Table S3. Distribution of organic selenium and inorganic selenium in selenium-rich rice ($\mu\text{g}/100\text{ g}$, wet weight).

Figure S1. Map showing the geographical location and population of ten sampling areas in China where common rice and selenium-rich rice were collected. (Population data came from China's sixth census)

Table S1. Working parameters of inductively coupled plasma mass spectrometry (ICP-MS).

Instrument parameter	Setting value	Instrument parameter	Setting value
RF power	1100 W	Analog voltage	-1862 V
Atomized gas flow	0.89 L/min	Impulse voltage	1310V
Plasma gas flow	16.0 L/min	Scanning mode	Peaking
Measurement model	DRC mode	Scan times	20 times
CH ₄ flow rate	0.8 mL/min	Reading	1 time
Rejection parameter q (RPq)	0.7	Times of repetition	3 times
Lens voltage	6.8 V	Detected signal	⁸⁰ Se

Table S2. The daily rice intake of residents of different gender and age population groups in China.

Age (years)	Daily intake (g/day)	
	Male	Female
2-4	116.8	115.3
4-7	154.9	137.5
7-11	199.0	182.8
11-14	229.5	205.5
14-18	266.1	207.5
18-30	266.9	224.9
30-45	272.6	240.2
45-60	271.5	235.2
60-70	236.2	209.4
70-80	222.7	192.7

Table S3. Distribution of organic selenium and inorganic selenium in selenium-rich rice ($\mu\text{g}/100\text{ g}$, wet weight).

Number	Total selenium ($\mu\text{g}/100\text{g}$)	Organic selenium ($\mu\text{g}/100\text{g}$)	The proportion of inorganic selenium (%)	Inorganic selenium ($\mu\text{g}/100\text{gfw}$)	The proportion of inorganic selenium (%)
1	4.053	2.996	73.93	1.057	26.07
2	4.350	3.017	69.36	1.333	30.64
3	13.385	10.487	78.35	2.898	21.65
4	6.180	4.031	65.23	2.149	34.77
5	5.610	4.732	84.35	0.878	15.65
6	18.455	12.821	69.47	5.634	30.53
7	10.102	8.810	87.21	1.292	12.79
8	15.446	12.546	81.23	2.900	18.78
9	4.613	3.941	85.43	0.672	14.57
10	5.517	4.152	75.26	1.365	24.74
11	4.349	2.836	65.21	1.513	34.79
12	5.907	3.682	62.34	2.225	37.66
13	18.956	16.973	89.54	1.983	10.46
14	4.352	3.797	87.24	0.555	12.76
15	6.350	5.568	87.68	0.782	12.32
16	13.480	11.681	86.65	1.799	13.35
17	15.726	12.446	79.14	3.280	20.86
18	5.540	4.417	79.73	1.123	20.28
19	10.196	6.958	68.24	3.238	31.76
20	15.230	13.144	86.31	2.086	13.70



Figure S1. Map showing the geographical location and population of ten sampling areas in China where common rice and selenium-rich rice were collected. (Population data came from China's sixth census)