

Supplementary material

Table S1 Effect of the different analytical procedures of dried mussel

Analytical procedure	DMA (mg/kg)	As(III) (mg/kg)	MMA (mg/kg)	As(V) (mg/kg)	Total content of arsenic species (mg/kg)	Extraction rate (%)
This study	0.67	<0.017	0.039	0.45	1.16	99.1
Heating extraction method at 90°C for 90 min	0.64	<0.017	0.033	0.45	1.12	95.7
Room temperature ultrasonic extraction method for 90 min	0.63	<0.017	0.039	0.47	1.14	97.4
Heating ultrasonic extraction method at 90°C for 90 min	0.64	<0.017	0.035	0.45	1.12	95.7
The national method	0.67	<0.017	0.043	0.46	1.17	—

Table S2 The orthogonal experimental design and the analysis results

Groups	The concentration of extracting solution (%)	Extracting temperature (°C)	Extraction time (min)	Extraction rate (%)
Group 1	1	90	60	84.3
Group 2	1	120	75	94.9
Group 3	1	150	90	102
Group 4	2	90	75	88.4
Group 5	2	120	90	81.5
Group 6	2	150	60	103
Group 7	3	90	90	79.6
Group 8	3	120	60	82.9
Group 9	3	150	75	94.4

Table S3 Analytical results of samples via the national method

Sample	DMA (mg/kg)	As(III) (mg/kg)	MMA (mg/kg)	As(V) (mg/kg)	Inorganic arsenic (mg/kg)	Total content of arsenic species(mg/kg)
Dried yellow shrimp	0.094	0.077	0.075	0.087	0.16	0.33
Dried mussel	0.66	<0.017	0.036	0.46	0.46	1.16
Clam meat	0.43	<0.017	0.054	0.38	0.38	0.86
Dried squid	0.037	0.052	0.084	0.056	0.11	0.23
Whitebait	0.22	<0.017	0.11	0.13	0.13	0.46
Cowfish	0.20	<0.017	0.086	0.070	0.070	0.36
Cooked dried fish	0.27	0.10	0.085	0.11	0.21	0.56

Table S4 The concentration rate and the calculated limit value

sample	Fresh product (g, contains water per 100 g)	Dried product (g, contains water per 100g)	Percentage of water content in fresh product(%)	Percentage of water content in dried product(%)	The concentration rate ^a	The calculated limit value(mg/kg) ^b
Whitebait	76.2	20.2	0.762	0.202	0.298	0.34
Cowfish	76.2	20.2	0.762	0.202	0.298	0.34
Cooked dried fish	76.2	20.2	0.762	0.202	0.298	0.34

Note:a. The concentration rate=(1-Percentage of water content in fresh product)/(1-Percentage of water content in dried product).

b. The calculated limit value=The limit value of fresh product/The concentration rate.