

Supporting Information

**Selenium modulates mercury uptake and distribution in rice
(*Oryza sativa L.*), in correlation to mercury species and
exposure level**

Jiating Zhao^a, Yunyun Li^a, Yuxi Gao^{a,*}, Yufeng Li^a, Bai Li^a, Yi Hu^a, Yuliang Zhao^a,
Zhifang Chai^a

^a CAS Key Lab of Nuclear Radiation and Nuclear Energy Technology; CAS Key
Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, Institute of
High Energy Physics (IHEP), Chinese Academy of Sciences (CAS), Beijing
100049, China.

* Corresponding author e-mail: gaoyx@ihep.ac.cn

Abbreviation:

Inductively coupled plasma-mass spectrometry (ICP-MS)

Inorganic mercury (IHg)

Methylmercury (MeHg)

Micro-synchrotron radiation X-ray fluorescence (μ -SRXRF)

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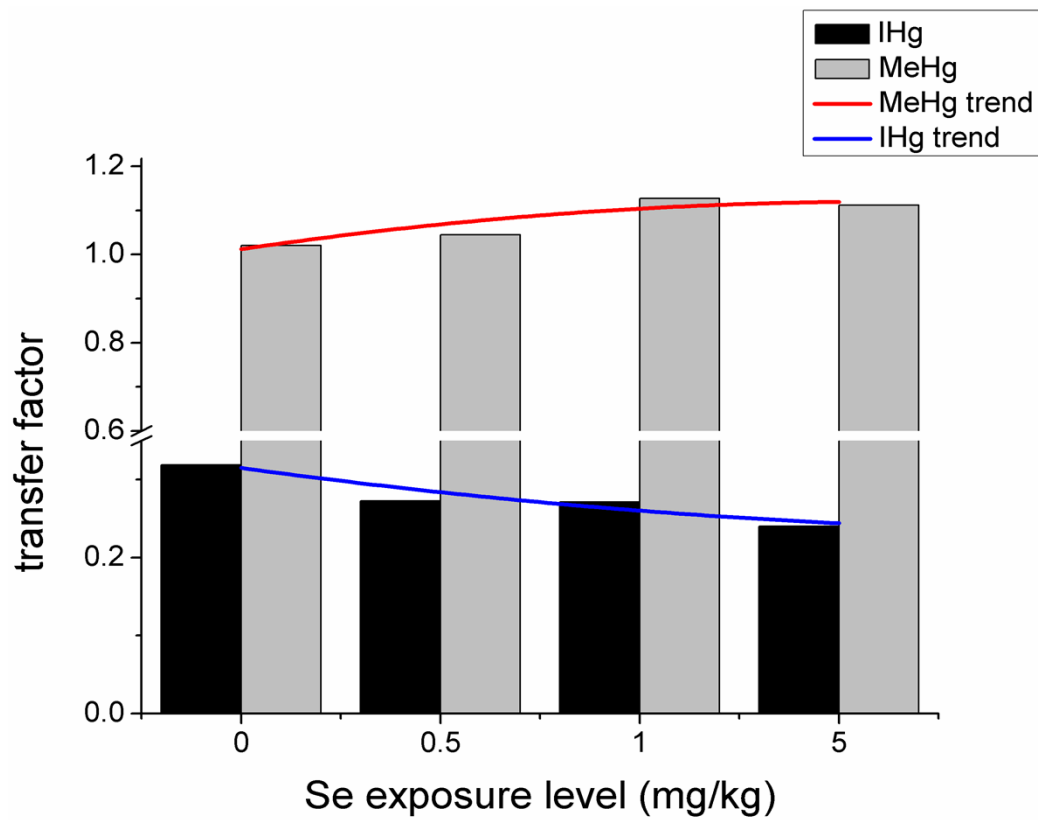
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Table S1 The operating conditions of ICP-MS for Hg analysis in rice plant

ICP/MS Conditions	
Spray chamber	Quartz impact bead
Nebulizer	Glass concentric
RF power/ W	1200
Plasma gas flow/ L min ⁻¹	13.0
Auxiliary gas flow/ L min ⁻¹	0.70
Nebulizer gas flow/ L min ⁻¹	0.72
Collision gas	7.28% (v/v) H ₂ in He
Collision gas flow/ ml min ⁻¹	5.6
Dwell time/ms	100
Monitored ion/ m/z	²⁰² Hg

Figure S1 Effect of Se on the transfer factors (TF) of IHg and MeHg from root to the aerial part of rice plant.



TF=IHg (MeHg) content in aerial part / IHg (MeHg) content in root

Figure S2 μ -SRXRF imaging of the distribution and accumulation of the essential elements (K, Ca, Fe, Cu, Zn and Mn) in rice grains.

