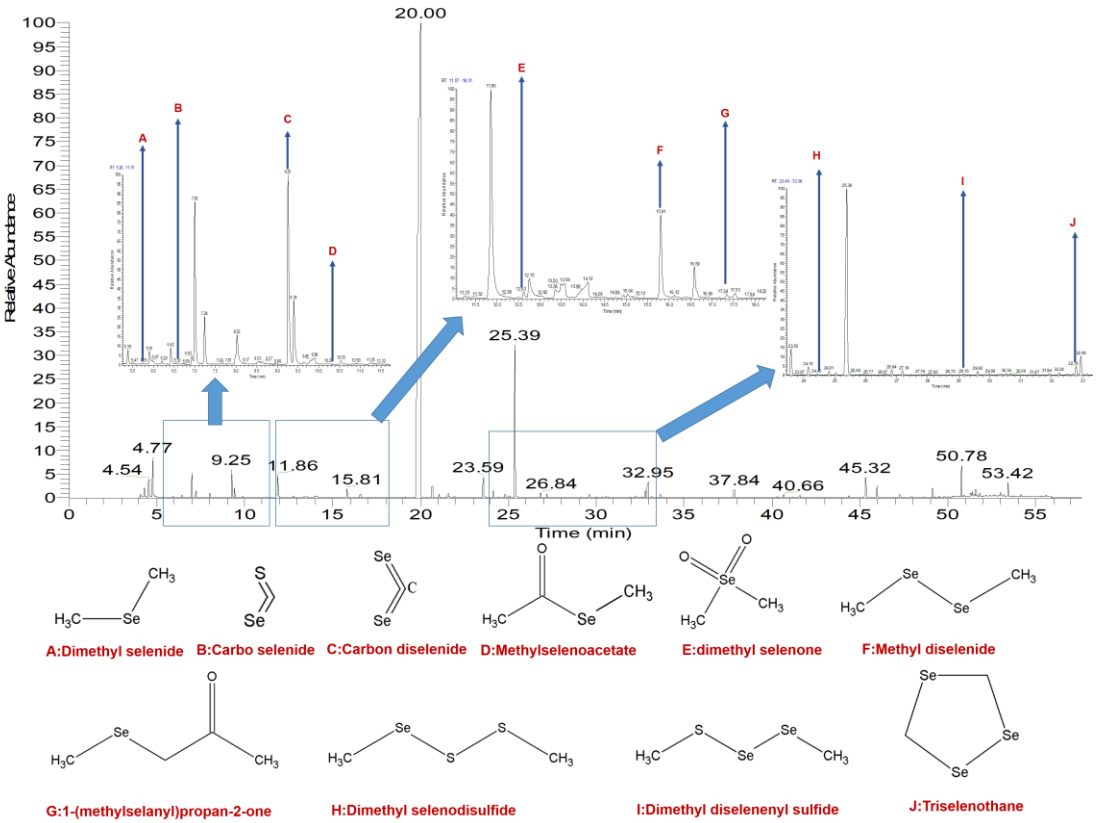


**Fig. S1** GC-MS total ion map and structures of the identified volatile Se-compounds

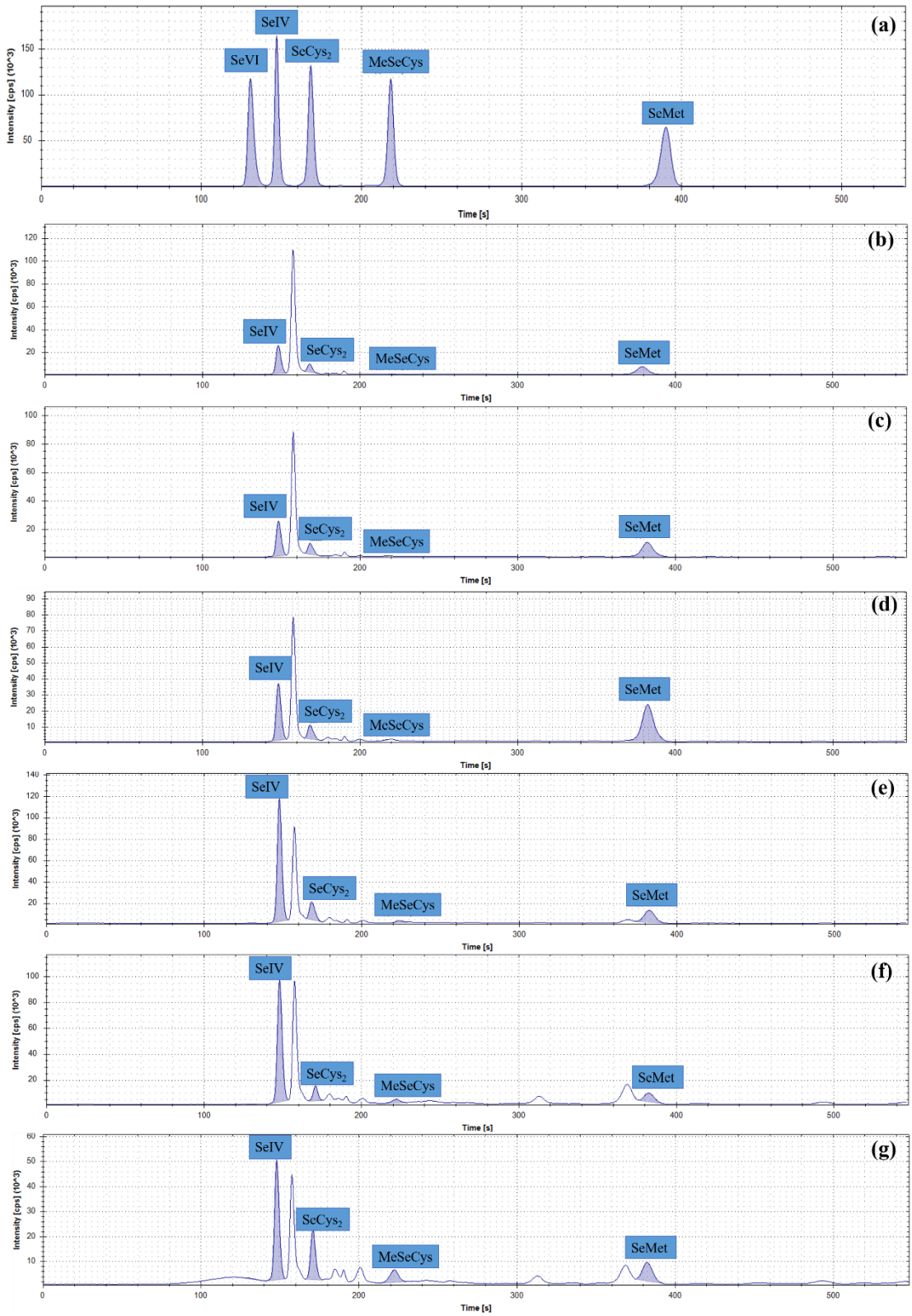


**Fig. S2** HPLC-ICP-MS map of the selenoamino acids. (a) standards; (b-d) *G. lucidum* cultured with 50 ppm $Na_2SeO_3$ from the 4$^{th}$ to 6$^{th}$ day; (e-g) *G. lucidum* cultured with 200 ppm $Na_2SeO_3$ from the 4$^{th}$ to 6$^{th}$ day.