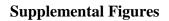
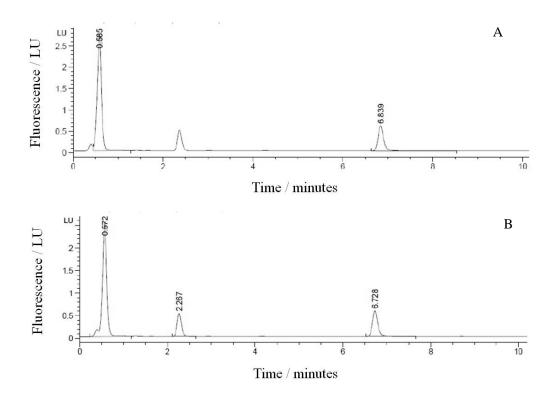
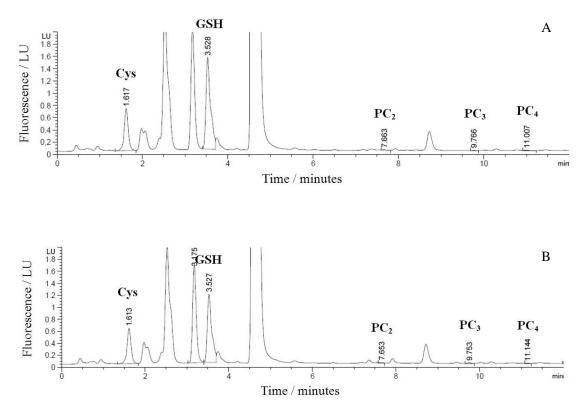
## **Electronic Supplementary Information**





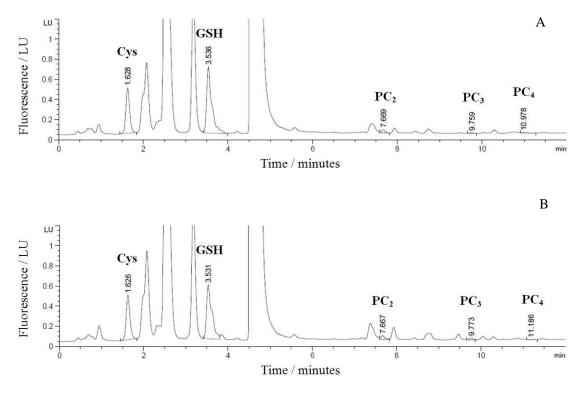
Supplemental Fig. 1. Chromatogram of a blank sample without (A) and with (B) the addition of

TCEP (without mBBr derivatization).



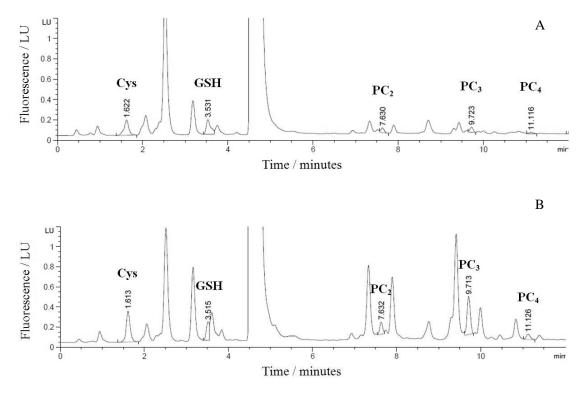
Supplemental Fig. 2. Separation profiles of mBBr derivatized thiols in the control (A) and  $1\mu M$ 

Cd treated (B) rice leaf samples.



Supplemental Fig. 3. Separation profiles of mBBr derivatized thiols in the control (A) and  $1\mu M$ 

Cd treated (B) rice stem samples.



Supplemental Fig. 4. Separation profiles of mBBr derivatized thiols in the control (A) and  $1\mu M$ 

Cd treated (B) rice root samples.

## Supplemental table

Component name	Retention time	Linear regression		
	(min)	Slope	Intercept	$r^2$
Cys	2.068	0.4523	0.0311	0.9999
GSH	3.521	0.2256	0.0430	0.9997
PC <sub>2</sub>	7.619	0.1643	0.0079	0.9999
PC <sub>3</sub>	9.709	0.1314	-0.0390	0.9999
PC <sub>4</sub>	11.106	0.0645	-0.0081	0.9997

Supplemental Table 1: Linearity and  $r^2$  values for mixed thiol standards (1-20  $\mu$ g·mL<sup>-1</sup>)