**Table S4.** **Hg species distribution in rice seeds samples**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Location** | **Sample name** | **THg** | **iHg** | **MeHg** | **% MeHg** |
| ng g-1 | ng g-1 | ng g-1 | % |
| Dashuixi | DSX1-RS | 121 | ± | 21 | 67 | ± | 21 | 54 | ± | 2 | 45 |
| DSX2-RS | 87 | ± | 1 | 30 | ± | 1 | 57 | ± | 1 | 66 |
| DSX3-RS | 89 | ± | 3 | 35 | ± | 3 | 55 | ± | 1 | 61 |
| DSX4-RS | 107 | ± | 1 | 42 | ± | 1 | 65 | ± | 1 | 61 |
| DSX5-RS | 103 | ± | 4 | 38 | ± | 3 | 65 | ± | 2 | 63 |
| Meizixi | MZX1-RS | 194 | ± | 6 | 151 | ± | 6 | 43 | ± | 1 | 22 |
| MZX2-RS | 113 | ± | 2 | 89 | ± | 2 | 24 | ± | 1 | 21 |
| MZX3-RS | 485 | ± | 31 | 457 | ± | 31 | 29 | ± | 2 | 6 |
| Baigoushu | BGS1-RS | 137 | ± | 6 | 114 | ± | 5 | 23 | ± | 3 | 17 |
| BGS2-RS | 316 | ± | 24 | 292 | ± | 24 | 24 | ± | 1 | 8 |
| Gouxi | GX1-RS | 301 | ± | 8 | 218 | ± | 8 | 83 | ± | 2 | 28 |
| GX2-RS | 204 | ± | 17 | 7 | ± | 2 | 197 | ± | 17 | 97 |
| GX3-RS1 | 579 | ± | 20 | 429 | ± | 19 | 152 | ± | 7 | 26 |
| GX4-RS1 | 171 | ± | 4 | 27 | ± | 0 | 144 | ± | 4 | 84 |

Results are expressed as mean value ± SD of triplicate sample analysis (n=3). SD means standard deviation. THg concentration corresponds to the sum of iHg and MeHg concentration that determined by GC-ICP-MS. The results exhibit good recovery with THg content in rice seeds sample that was determined by acid digestion CVAFS or thermal decomposition AAS). RS: rice seeds.