TABLE S-I. Participation of metals fraction (%) in total metal content for sequential microwave extraction at 50, 100 and 150 °C

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Element | | T / °C | Phase I | Phase II | Phase III | Phase IV | Phase V |
| Al | | 50 | 4.92 | 7.78 | 32.49 | 16.98 | 37.83 |
| 100 | 1.71 | 5.20 | 30.66 | 11.55 | 50.87 |
| 150 | 2.47 | 6.86 | 31.95 | 9.95 | 48.77 |
| Fe | | 50 | 1.35 | 4.67 | 55.03 | 7.13 | 31.81 |
| 100 | 0.31 | 5.24 | 52.07 | 7.57 | 34.82 |
| 150 | 0.18 | 8.50 | 54.30 | 9.61 | 27.41 |
| Mn | 50 | | 10.04 | 4.16 | 32.07 | 29.49 | 24.24 |
| 100 | | 7.23 | 5.94 | 28.90 | 33.58 | 24.34 |
| 150 | | 9.58 | 8.27 | 26.87 | 38.95 | 16.32 |
| As | 50 | | 17.38 | 11.21 | 69.88 | n.d.\* | 1.54 |
| 100 | | 2.92 | 11.71 | 85.37 | n.d | n.d. |
| 150 | | 6.11 | 11.30 | 82.01 | 0.57 | n.d |
| Be | 50 | | 12.36 | 11.24 | 41.57 | 13.48 | 21.35 |
| 100 | | 5.71 | 10.71 | 39.28 | 12.14 | 32.14 |
| 150 | | 8.00 | 14.86 | 38.86 | 8.00 | 30.28 |
| Cd | 50 | | 15.04 | 3.76 | 41.35 | 12.03 | 27.82 |
| 100 | | 2.30 | 4.15 | 46.08 | 11.98 | 35.48 |
| 150 | | 2.51 | 6.81 | 51.25 | 12.90 | 26.52 |
| Co | 50 | | 12.77 | 4.36 | 42.99 | 18.69 | 21.18 |
| 100 | | 9.08 | 4.34 | 38.40 | 23.00 | 25.17 |
| 150 | | 8.89 | 5.74 | 33.60 | 30.92 | 20.85 |
| Cr | 50 | | 8.56 | 6.25 | 45.90 | 18.85 | 20.43 |
| 100 | | 3.99 | 4.55 | 45.13 | 11.84 | 34.48 |
| 150 | | 0.63 | 4.25 | 51.04 | 7.26 | 36.83 |
| Ni | 50 | | 12.12 | 3.83 | 30.65 | 32.01 | 21.39 |
| 100 | | 9.15 | 3.64 | 34.74 | 26.70 | 25.77 |
| 150 | | 8.29 | 5.55 | 34.66 | 33.59 | 17.91 |
| Pb | 50 | | 3.77 | 25.08 | 19.14 | 28.69 | 23.32 |
| 100 | | 2.86 | 7.62 | 23.74 | 30.05 | 35.73 |
| 150 | | 3.77 | 7.97 | 25.22 | 32.28 | 30.76 |
| Cu | 50 | | 6.15 | 3.96 | 14.52 | 36.94 | 38.43 |
| 100 | | 6.58 | 4.08 | 16.26 | 36.49 | 36.59 |
| 150 | | 6.61 | 6.46 | 10.88 | 24.45 | 51.59 |

\*n.d. - not detected