**Table 2.** Parameterization coefficients for partitioning in the Fe-Ni-S, Fe-Ni-P, and Fe-Ni-C systems.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Element** | **Do** | **βSulfur** | **βPhosphorus** | **βCarbon** |
| P | 0.1\* | -2.40 ± 0.10 | -0.43 ±0.20 | - |
| V | 0.57 ± 0.15 | 3.00 ± 0.67 | - | - |
| Cr | 0.81 ± 0.1 | 1.66 ± 0.24 | -0.7 ± 1.4 | 1.36 ± 0.19 |
| Co | 0.95 ± 0.03 | -1.260 ± 0.088 | -0.70 ± 0.47 | -0.588 ± 0.060 |
| Ni | 0.874 ± 0.015 | -0.517 ± 0.021 | -0.016 ± 0.039 | -1.282 ± 0.049 |
| Cu | 0.77 ± 0.05 | 1.39 ± 0.17 | -1.29 ± 0.61 | -1.92 ± 0.29 |
| Zn | 0.66 ± 0.06 | 0.99 ± 0.57 | - | - |
| Ga | 0.76 ± 0.03 | -2.81 ± 0.19 | -4.16 ± 0.74 | -3.70 ± 0.43 |
| Ge | 0.63 ± 0.05 | -3.23 ± 0.18 | -4.23 ± 0.46 | -2.57 ± 0.21 |
| As | 0.23 ± 0.04 | -2.00 ± 0.13 | -3.42 ± 0.39 | -2.00 ± 0.28 |
| Mo | 0.67 ± 0.04 | -1.33 ± 0.17 | 2.08 ± 0.50 | - |
| Ru | 1.18 ± 0.05 | -3.89 ± 0.37 | -0.94 ± 0.65 | -1.60 ± 0.36 |
| Rh | 0.97 ± 0.04 | -2.66 ± 0.24 | -0.74 ± 0.50 | - |
| Pd | 0.54 ± 0.05 | -0.707 ± 0.074 | -0.87 ± 0.45 | -3.38 ± 0.26 |
| Ag | 0.15 ± 0.04 | 2.88 ± 0.51 | 0.45 ± 0.95 | - |
| Sn | 0.13 ± 0.03 |  -0.84 ± 0.24 | -2.20 ± 0.55 | -4.65 ± 0.50 |
| Sb | 0.12 ± 0.02 |  -0.61 ± 0.37 | -3.23 ± 0.63 | -4.97 ± 0.59 |
| W | 0.95 ± 0.04 | -3.88 ± 0.21 | -0.67 ± 0.65 | 3.36 ± 0.47 |
| Re | 1.65 ± 0.11 | -5.08 ± 0.21 | -3.79 ± 0.68 | 0.27 ± 0.36 |
| Os | 1.71 ± 0.11 | -5.34 ± 0.20 | -5.6 ± 1.1 | -2.80 ± 0.63 |
| Ir | 1.49 ± 0.07 | -5.04 ± 0.25 | -5.63 ± 0.68 | -4.23 ± 0.65 |
| Pt | 0.95 ± 0.04 | -4.20 ± 0.25 | -5.68 ± 0.70 | -4.81 ± 0.76 |
| Au | 0.37 ± 0.05 | -1.72 ± 0.15 | -3.19 ± 0.31 | -4.29 ± 0.28 |
| Pb | 0.025 ± 0.007 | 3.0 ± 2.4 | 1.9 ± 1.1 | - |
| Bi | 0.012 ± 0.003 | 7.5 ± 4.0 | 1.80 ± 0.90 | - |

All errors are ± 2. See Equation (1) for the form of the regression and Equation (2) for the calculation of *Fe Domains* for light element *i*.

\*D0 value estimated by extrapolation of the experimental data shown in Fig. 3.