Table 2. Experimental partitioning results from the Fe-Ni-P system. All errors are ±2σ.

Run # LB14 LB16 LB19 LB21 R1P1 R5P4 R2P8 R2P9

Temperature (°C) 1100 1075 1100 1100 1100 1075 1000 950

Duration (hours) 22 22 72 144 72 96 120 144

P-rich melt

Fe (wt%) 89.6 ± 0.7 88.2 ± 2.2 88.2 ± 2.3 88.8 ± 2.0 74.6 ± 0.9 65.9 ± 1.1 51.4 ± 1.8 42.2 ± 1.0

P (wt%) 11.1 ± 1.5 11.3 ± 1.5 12.1 ± 2.1 12.2 ± 1.6 13.9 ± 2.2 13.5 ± 1.8 12.1 ± 1.8 12.0 ± 1.6

Ni (wt%) — — — — 10.9 ± 2.7 21.4 ± 1.6 33.6 ± 2.9 42.3 ± 1.7

V (ppm) — 8.9 ± 1 — — 11 ± 3 22 ± 3 7.2 ± 0.2 3.5 ± 0.4

Co (ppm) 134 ± 32 113 ± 21 122 ± 29 129 ± 16 294 ± 16 454 ± 18 645 ± 49 732 ± 45

Cu (ppm) 428 ± 178 275 ± 61 319 ± 35 231 ± 70 391 ± 66 620 ± 103 455 ± 77 216 ± 27

Zn (ppm) — — — — 53 ± 17 151 ± 47 120 ± 56 63 ± 6

Ga (ppm) 57 ± 10 25 ± 6 43 ± 3 35 ± 6 58 ± 13 68 ± 5 96 ± 22 58 ± 23

Ge (ppm) 180 ± 45 201 ± 43 168 ± 13 228 ± 45 127 ± 29 140 ± 16 180 ± 29 151 ± 67

As (ppm) 178 ± 110 215 ± 75 211 ± 51 220 ± 86 166 ± 37 294 ± 83 283 ± 96 225 ± 98

Mo (ppm) 117 ± 38 110 ± 18 122 ± 11 121 ± 21 155 ± 8 183 ± 8 260 ± 7 245 ± 32

Ru (ppm) 103 ± 20 94 ± 9 111 ± 12 94 ± 5 123 ± 13 157 ± 20 165 ± 9 147 ± 13

Rh (ppm) 95 ± 24 87 ± 2 84 ± 11 89 ± 10 91 ± 5 111 ± 0.2 145 ± 5 115 ± 11

Pd (ppm) 114 ± 84 109 ± 38 141 ± 13 163 ± 64 142 ± 37 188 ± 7 230 ± 68 160 ± 66

Ag (ppm) — 15 ± 13 223 ± 205 — 311 ± 249 315 ± 123 553 ± 124 406 ± 189

W (ppm) 59 ± 10 69 ± 5 68 ± 15 63 ± 6 61 ± 1 76 ± 3 94 ± 7 83 ± 12

Re (ppm) 85 ± 23 90 ± 22 67 ± 12 84 ± 21 76 ± 12 110 ± 12 116 ± 16 85 ± 12

Os (ppm) 71 ± 17 94 ± 29 84 ± 30 86 ± 30 72 ± 15 87 ± 9 92 ± 7 70 ± 13

Ir (ppm) 130 ± 32 167 ± 50 116 ± 27 145 ± 49 119 ± 15 123 ± 3 153 ± 5 115 ± 23

Pt (ppm) 120 ± 26 167 ± 35 118 ± 33 144 ± 32 87 ± 18 91 ± 10 110 ± 13 87 ± 25

Au (ppm) — 265 ± 166 224 ± 33 208 ± 111 210 ± 102 315 ± 76 377 ± 88 389 ± 219

Schreibersite

Fe (wt%) 84.8 ± 2.7 84.6 ± 2.3 84.9 ± 1.3 84.9 ± 1.8 75.9 ± 2.1 69.0 ± 0.9 55.3 ± 1.8 44.1 ± 0.7

P (wt%) 15.2 ± 2.0 15.4 ± 2.0 16.5 ± 2.1 15.6 ± 2.0 15.8 ± 2.1 15.7 ± 2.0 15.6 ± 2.0 15.6 ± 2.0

Ni (wt%) — — — — 8.3 ± 2.1 15.4 ± 0.9 26.5 ± 1.1 36.9 ± 0.9

V (ppm) — 13 ± 3 2.5 ± 1.7 — 18 ± 0.9 24 ± 2 7.9 ± 2 4.2 ± 0.8

Co (ppm) — 83 ± 6 — — 307 ± 30 346 ± 42 540 ± 47 818 ± 77

Cu (ppm) — 91 ± 42 98 ± 44 62 ± 7 131 ± 8 120 ± 6 121 ± 11 63 ± 6

Table 2. *Continued*. Experimental partitioning results from the Fe-Ni-P system. All errors are ±2σ.

Run # LB14 LB16 LB19 LB21 R1P1 R5P4 R2P8 R2P9

Zn (ppm) — — — — — — — 7.9 ± 5

Ga (ppm) 7.2 ± 6.3 5.4 ± 5.2 4.2 ± 1.2 4.1 ± 0.1 4.7 ± 1 4.3 ± 1 4.8 ± 1 5.4 ± 2

Ge (ppm) 22 ± 21 — 14 ± 12 12 ± 8 13 ± 2 14 ± 1 17 ± 4 20 ± 3

As (ppm) 48 ± 45 — 32 ± 24 27 ± 1 25 ± 2 25 ± 0.8 34 ± 7 29 ± 3

Mo (ppm) — 89 ± 17 93 ± 14 95 ± 12 137 ± 21 128 ± 4 221 ± 45 239 ± 22

Ru (ppm) 91 ± 15 76 ± 10 100 ± 13 101 ± 4 166 ± 26 136 ± 14 165 ± 30 134 ± 11

Rh (ppm) 56 ± 9 55 ± 11 49 ± 6 51 ± 6 82 ± 16 67 ± 6 110 ± 20 87 ± 15

Pd (ppm) 29 ± 5 36 ± 23 29 ± 12 31 ± 4 36 ± 3 34 ± 4 40 ± 10 39 ± 3

Ag (ppm) — — 5.6 ± 2.3 3.6 ± 0.6 4.5 ± 0.7 — 7.8 ± 3 10 ± 5

W (ppm) 46 ± 10 57 ± 8 65 ± 11 63 ± 4 69 ± 10 88 ± 7 101 ± 20 86 ± 9

Re (ppm) 56 ± 14 48 ± 13 55 ± 10 71 ± 2 95 ± 14 157 ± 5 111 ± 34 87 ± 20

Os (ppm) 33 ± 3 32 ± 14 46 ± 9 35 ± 6 59 ± 21 90 ± 11 103 ± 30 107 ± 16

Ir (ppm) 35 ± 4 37 ± 29 33 ± 10 35 ± 1 64 ± 12 66 ± 8 79 ± 19 63 ± 7

Pt (ppm) 14 ± 4 — 12 ± 4 12 ± 1 20 ± 5 25 ± 2 21 ± 5 19 ± 4

Au (ppm) — — 3.1 ± 1.9 2.1 ± 0.4 3.7 ± 0.9 4.0 ± 1 4.3 ± 1 3.3 ± 0.9

D(schreibersite)/(P-rich melt)

P 1.37 ± 0.26 1.36 ± 0.25 1.32 ± 0.28 1.35 ± 0.25 1.13 ± 0.23 1.17 ± 0.22 1.29 ± 0.25 1.30 ± 0.24

Ni — — — — 0.77 ± 0.27 0.72 ± 0.07 0.79 ± 0.08 0.87 ± 0.04

V — 1.47 ± 0.44 — — 1.64 ± 0.46 1.09 ± 0.17 1.10 ± 0.22 1.20 ± 0.26

Co — 0.73 ± 0.14 — — 1.04 ± 0.12 0.76 ± 0.10 0.84 ± 0.10 1.12 ± 0.13

Cu — 0.33 ± 0.17 0.31 ± 0.14 0.27 ± 0.09 0.34 ± 0.06 0.19 ± 0.03 0.27 ± 0.05 0.29 ± 0.05

Zn — — — — — — — 0.13 ± 0.07

Ga 0.13 ± 0.11 — 0.10 ± 0.03 0.12 ± 0.02 0.08 ± 0.03 0.06 ± 0.02 0.05 ± 0.02 0.09 ± 0.05

Ge — — 0.09 ± 0.07 0.05 ± 0.03 0.10 ± 0.03 0.10 ± 0.01 0.09 ± 0.03 0.13 ± 0.06

As — — 0.15 ± 0.12 0.12 ± 0.05 0.15 ± 0.04 0.09 ± 0.02 0.12 ± 0.05 0.13 ± 0.06

Mo — 0.81 ± 0.20 0.76 ± 0.13 0.79 ± 0.17 0.88 ± 0.14 0.70 ± 0.04 0.85 ± 0.18 0.98 ± 0.16

Ru 0.88 ± 0.23 0.81 ± 0.14 0.89 ± 0.15 1.07 ± 0.07 1.35 ± 0.25 0.87 ± 0.14 1.00 ± 0.19 0.91 ± 0.11

Rh 0.59 ± 0.18 0.63 ± 0.13 0.58 ± 0.11 0.57 ± 0.09 0.90 ± 0.19 0.60 ± 0.06 0.76 ± 0.14 0.76 ± 0.15

Pd 0.26 ± 0.19 0.33 ± 0.24 0.21 ± 0.08 0.19 ± 0.08 0.25 ± 0.07 0.18 ± 0.02 0.17 ± 0.07 0.24 ± 0.10

Ag — — — — 0.014 ± 0.012 — 0.014 ± 0.006 0.03 ± 0.02

Table 2. *Continued*. Experimental partitioning results from the Fe-Ni-P system. All errors are ±2σ.

Run # LB14 LB16 LB19 LB21 R1P1 R5P4 R2P8 R2P9

W 0.78 ± 0.22 0.82 ± 0.13 0.96 ± 0.27 1.00 ± 0.11 1.13 ± 0.16 1.16 ± 0.11 1.07 ± 0.23 1.04 ± 0.19

Re 0.66 ± 0.24 0.53 ± 0.19 0.83 ± 0.21 0.84 ± 0.21 1.25 ± 0.27 1.43 ± 0.16 0.96 ± 0.32 1.02 ± 0.27

Os 0.46 ± 0.12 0.34 ± 0.18 0.55 ± 0.22 0.40 ± 0.16 0.82 ± 0.34 1.03 ± 0.16 1.12 ± 0.33 1.53 ± 0.37

Ir 0.27 ± 0.07 0.22 ± 0.19 0.29 ± 0.11 0.24 ± 0.08 0.54 ± 0.12 0.54 ± 0.06 0.52 ± 0.13 0.55 ± 0.12

Pt 0.11 ± 0.04 — 0.11 ± 0.04 0.08 ± 0.02 0.23 ± 0.07 0.27 ± 0.04 0.19 ± 0.05 0.22 ± 0.08

Au — — 0.014 ± 0.009 0.010 ± 0.006 0.02 ± 0.01 0.013 ± 0.006 0.010 ± 0.004 0.008 ± 0.005