**Table S1. The phases dataset which consists of 557 as cast CCAs**

| Alloys | Phase(s) | ML-A | ML-B | ML-C | Ref |
| --- | --- | --- | --- | --- | --- |
| Al0.8CoCrNiSi0.2 | BCC+B2+σ | MP | IM |  | 1 |
| Al0.44CoCrFeNi | BCC+FCC+B2 | MP | IM |  | 1 |
| Al0.43CoCr0.29NiSi0.14 | FCC+L12+L10 | MP | IM |  | 1 |
| CoCrCuFeMnNi | FCC | SP | SS | FCC | 2 |
| CoCrFeMnNbNi | FCC | SP | SS | FCC | 2 |
| CoCrFeGeMnNi | BCC+FCC | MP | SS | MSS | 2 |
| CoCrFeMnNiTi | BCC+FCC | MP | SS | MSS | 2 |
| Al0.8CrCuFeMn1.5Ni | 2BCC | MP | SS | BCC | 3 |
| AlCrCuFeMnNi | 2BCC | MP | SS | BCC | 3 |
| Al0.5CrCuFeMnNi | 2BCC+FCC | MP | SS | MSS | 3 |
| Al0.8CrCuFe1.5MnNi | 2BCC+FCC | MP | SS | MSS | 3 |
| Al0.8CrCuFeMnNi | 2BCC+FCC | MP | SS | MSS | 3 |
| Al0.3CrCuFeMnNi | BCC+2FCC | MP | SS | MSS | 3 |
| Al0.8CrCu1.5FeMnNi | BCC+FCC | MP | SS | MSS | 3 |
| AlCrMoNbTi | BCC | SP | SS | BCC | 4 |
| AlCr0.5CuFeNiTi | BCC+FCC | MP | SS | MSS | 5 |
| AlCr1.5CuFeNiTi | BCC+FCC | MP | SS | MSS | 5 |
| AlCr2CuFeNiTi | BCC+FCC | MP | SS | MSS | 5 |
| AlCr3CuFeNiTi | BCC+FCC | MP | SS | MSS | 5 |
| Al0.5CoCrCuFeNiV0.2 | 2FCC | MP | SS | FCC | 6 |
| Al0.5CoCrCuFeNiV0.4 | BCC+FCC | MP | SS | MSS | 6 |
| Al0.5CoCrCuFeNiV1.2 | BCC+FCC | MP | SS | MSS | 6 |
| Al0.5CoCrCuFeNiV1.4 | BCC+FCC | MP | SS | MSS | 6 |
| Al0.5CoCrCuFeNiV1.6 | BCC+FCC | MP | SS | MSS | 6 |
| Al0.5CoCrCuFeNiV1.8 | BCC+FCC | MP | SS | MSS | 6 |
| Al0.5CoCrCuFeNiV2.0 | BCC+FCC | MP | SS | MSS | 6 |
| Al0.5CoCrCuFeNiV0.6 | BCC+FCC+σ | MP | IM |  | 6 |
| Al0.5CoCrCuFeNiV0.8 | BCC+FCC+σ | MP | IM |  | 6 |
| Al0.5CoCrCuFeNiV1.0 | BCC+FCC+σ | MP | IM |  | 6 |
| Al0.5CoCrCuFeNiTi0.2 | FCC | SP | SS | FCC | 7 |
| Al0.5CoCrCuFeNiTi0.4 | 2BCC+FCC | MP | SS | MSS | 7 |
| Al0.5CoCrCuFeNiTi0.6 | 2BCC+FCC | MP | SS | MSS | 7 |
| Al0.5CoCrCuFeNiTi1.2 | 2BCC+FCC+NiTi2+σ | MP | IM |  | 7 |
| Al0.5CoCrCuFeNiTi0.8 | 2BCC+FCC+σ | MP | IM |  | 7 |
| Al0.5CoCrCuFeNiTi1.0 | 2BCC+FCC+σ | MP | IM |  | 7 |
| Al0.5CoCrCuFeNiTi1.4 | BCC+FCC+B2+NiTi2 | MP | IM |  | 7 |
| Al0.5CoCrCuFeNiTi1.6 | BCC+FCC+B2+NiTi2 | MP | IM |  | 7 |
| Al0.5CoCrCuFeNiTi1.8 | BCC+FCC+B2+NiTi2 | MP | IM |  | 7 |
| Al0.5CoCrCuFeNiTi2.0 | BCC+FCC+B2+NiTi2 | MP | IM |  | 7 |
| Al0.25MoNbTiV | BCC | SP | SS | BCC | 8 |
| Al0.50MoNbTiV | BCC | SP | SS | BCC | 8 |
| Al0.75MoNbTiV | BCC | SP | SS | BCC | 8 |
| AlMoNbTiV | BCC | SP | SS | BCC | 8 |
| MoNbTiV | BCC | SP | SS | BCC | 8 |
| Al1.50MoNbTiV | BCC+IM | MP | IM |  | 8 |
| Al2.08CoCrFeNi | BCC+B2 | MP | IM |  | 9 |
| Co1.5CrFeMo0.1Ni1.5Ti0.5 | FCC | SP | SS | FCC | 10 |
| Co1.5CrFeNi1.5Ti0.5 | FCC | SP | SS | FCC | 10 |
| Co1.5CrFeMo0.5Ni1.5Ti0.5 | FCC+σ | MP | IM |  | 10 |
| Co1.5CrFeMo0.8Ni1.5Ti0.5 | FCC+σ | MP | IM |  | 10 |
| CoCrCu1.5FeNi | 2FCC | MP | SS | FCC | 11 |
| CoCrFeNiSn | FCC+Orthorhombic | MP | IM |  | 11 |
| CoCrFeNiPd0.8 | FCC+IM | MP | IM |  | 11 |
| CoCrFeNiPd1.2 | FCC+IM | MP | IM |  | 11 |
| Co0.25Cr0.25FeMn | FCC | SP | SS | FCC | 12 |
| AlCrFeMoNi | B2+σ | MP | IM |  | 13 |
| AlCrFeMo0.8Ni | B2+σ | MP | IM |  | 13 |
| AlCrFeMo0.2Ni | BCC+B2 | MP | IM |  | 13 |
| AlCrFeMo0.5Ni | BCC+B2 | MP | IM |  | 13 |
| AlCrFeNi | BCC+B2 | MP | IM |  | 13 |
| Al0.15CrFe1.5Ni0.5 | BCC+B2 | MP | IM |  | 14 |
| Al0.2CrFe1.5Ni0.5 | BCC+B2 | MP | IM |  | 14 |
| Al0.3CrFe1.5Ni0.5 | B2 | SP | IM |  | 14 |
| Al0.4CrFe1.5Ni0.5 | B2 | SP | IM |  | 14 |
| CrHfNbTiZr | BCC+2Laves | MP | IM |  | 15 |
| HfNbTiVZr | BCC+IM | MP | IM |  | 15 |
| Al1.125CuFe0.75NiTi1.125 | 2FCC | MP | SS | FCC | 16 |
| AlCuFeNiTi | 2FCC | MP | SS | FCC | 16 |
| AlCuNiTi | FCC | SP | SS | FCC | 16 |
| Hf0.4Nb1.54Ta1.54Ti0.89Zr0.64 | BCC | SP | SS | BCC | 17 |
| HfNbTaTiVZr | BCC | SP | SS | BCC | 18 |
| Hf0.5Mo0.5NbTiZr | BCC | SP | SS | BCC | 19 |
| C0.1Hf0.5Mo0.5NbTiZr | BCC+MC-Carbide | MP | IM |  | 19 |
| C0.3Hf0.5Mo0.5NbTiZr | BCC+MC-Carbide | MP | IM |  | 19 |
| Hf0.5Mo0.5NbSi0.1TiZr | BCC+IM | MP | IM |  | 20 |
| Hf0.5Mo0.5NbSi0.3TiZr | BCC+IM | MP | IM |  | 20 |
| Hf0.5Mo0.5NbSi0.5TiZr | BCC+IM | MP | IM |  | 20 |
| Hf0.5Mo0.5NbSi0.7TiZr | BCC+IM | MP | IM |  | 20 |
| Hf0.5Mo0.5NbSi0.9TiZr | BCC+IM | MP | IM |  | 20 |
| HfMoNbTiZr | BCC | SP | SS | BCC | 21 |
| Al0.2CrCuFeNi2 | FCC | SP | SS | FCC | 22 |
| Al0.3CrCuFeNi2 | FCC | SP | SS | FCC | 22 |
| Al0.4CrCuFeNi2 | FCC | SP | SS | FCC | 22 |
| Al0.5CrCuFeNi2 | FCC | SP | SS | FCC | 22 |
| Al0.6CrCuFeNi2 | FCC | SP | SS | FCC | 22 |
| Al0.7CrCuFeNi2 | FCC | SP | SS | FCC | 22 |
| Al1.6CrCuFeNi2 | BCC+B2 | MP | IM |  | 22 |
| Al1.8CrCuFeNi2 | BCC+B2 | MP | IM |  | 22 |
| Al2.0CrCuFeNi2 | BCC+B2 | MP | IM |  | 22 |
| Al2.2CrCuFeNi2 | BCC+B2 | MP | IM |  | 22 |
| Al2.5CrCuFeNi2 | BCC+B2 | MP | IM |  | 22 |
| Al0.9CrCuFeNi2 | BCC+FCC+B2 | MP | IM |  | 22 |
| Al1.5CrCuFeNi2 | BCC+FCC+B2 | MP | IM |  | 22 |
| MoNbTaTiVW | BCC | SP | SS | BCC | 23 |
| MoNbTaTiW | BCC | SP | SS | BCC | 23 |
| MoNbTaTi0.25W | BCC | SP | SS | BCC | 24 |
| MoNbTaTi0.50W | BCC | SP | SS | BCC | 24 |
| MoNbTaTi0.75W | BCC | SP | SS | BCC | 24 |
| Al2(CoCrFeMnNi)98 | FCC | SP | SS | FCC | 25 |
| Al3(CoCrFeMnNi)97 | FCC | SP | SS | FCC | 25 |
| Al4(CoCrFeMnNi)96 | FCC | SP | SS | FCC | 25 |
| Al7(CoCrFeMnNi)93 | FCC | SP | SS | FCC | 25 |
| Al8(CoCrFeMnNi)92 | BCC+FCC | MP | SS | MSS | 25 |
| Al20(CoCrFeMnNi)80 | BCC+B2 | MP | IM |  | 25 |
| Al9(CoCrFeMnNi)91 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al10(CoCrFeMnNi)90 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al11(CoCrFeMnNi)89 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al12(CoCrFeMnNi)88 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al13(CoCrFeMnNi)87 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al14(CoCrFeMnNi)86 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al15(CoCrFeMnNi)85 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al16(CoCrFeMnNi)84 | BCC+FCC+B2 | MP | IM |  | 25 |
| Al1.5CoCrFeMo0.5Ni | B2+σ | MP | IM |  | 26 |
| Al2.0CoCrFeMo0.5Ni | BCC+B2 | MP | IM |  | 26 |
| Al0.5CoCrFeMo0.5Ni | FCC+σ | MP | IM |  | 26 |
| AlCoCrFe0.6Mo0.5Ni | BCC+σ | MP | IM |  | 27 |
| AlCoCrFe1.5Mo0.5Ni | BCC+σ | MP | IM |  | 27 |
| AlCoCrFe2Mo0.5Ni | BCC+σ | MP | IM |  | 27 |
| AlCo0.5CrFeMo0.5Ni | BCC+B2+σ | MP | IM |  | 28 |
| AlCo1.5CrFeMo0.5Ni | BCC+B2+σ | MP | IM |  | 28 |
| AlCo2CrFeMo0.5Ni | BCC+FCC+σ | MP | IM |  | 28 |
| AlCoCr0.5FeMo0.5Ni | B2+σ | MP | IM |  | 29 |
| AlCoCr1.5FeMo0.5Ni | B2+σ | MP | IM |  | 29 |
| AlCoCr2FeMo0.5Ni | B2+σ | MP | IM |  | 29 |
| AlCoFeMo0.5Ni | B2+σ | MP | IM |  | 29 |
| Al0.5B0.2CoCrCuFeNi | FCC+IM | MP | IM |  | 30 |
| Al0.5B0.6CoCrCuFeNi | FCC+IM | MP | IM |  | 30 |
| Al0.5BCoCrCuFeNi | L10+IM | MP | IM |  | 30 |
| AgAlCoCrCuNi | 2FCC+B2 | MP | IM |  | 31 |
| AlAuCoCrCuNi | FCC+L10 | MP | IM |  | 31 |
| AlCoCrCuNiTi | 2BCC+FCC | MP | SS | MSS | 32 |
| AlCoCrCuNiTiY0.8 | BCC+C15+L21 | MP | IM |  | 32 |
| AlCoCrCuNiTiY | BCC+C15+L21 | MP | IM |  | 32 |
| AlCoCrCuNiTiY0.5 | BCC+FCC+C15+L21 | MP | IM |  | 32 |
| HfTaTiZr | BCC | SP | SS | BCC | 33 |
| HfTa0.4TiZr | BCC+HCP | MP | SS | MSS | 33 |
| HfTa0.5TiZr | BCC+HCP | MP | SS | MSS | 33 |
| HfTa0.6TiZr | BCC+HCP | MP | SS | MSS | 33 |
| CoCrFeNb0.25Ni | FCC+Laves | MP | IM |  | 34 |
| CoCrFeNb0.45Ni | FCC+Laves | MP | IM |  | 34 |
| CoCrFeNb0.5Ni | FCC+Laves | MP | IM |  | 34 |
| CoCrFeNb0.75Ni | FCC+Laves | MP | IM |  | 34 |
| CoCrFeNb1.2Ni | FCC+Laves | MP | IM |  | 34 |
| CoCrFeNbNi | FCC+Laves | MP | IM |  | 34 |
| CoCrFeNiTa0.1 | FCC+Laves | MP | IM |  | 35 |
| CoCrFeNiTa0.2 | FCC+Laves | MP | IM |  | 35 |
| CoCrFeNiTa0.3 | FCC+Laves | MP | IM |  | 35 |
| CoCrFeNiTa0.4 | FCC+Laves | MP | IM |  | 35 |
| CoCrFeNiTa0.5 | FCC+Laves | MP | IM |  | 35 |
| CoCrFeNiTa0.75 | FCC+Laves | MP | IM |  | 35 |
| CoFeNiV | FCC | SP | SS | FCC | 36 |
| CoFeMoNi1.2V | FCC+IM(Co2Mo3) | MP | IM |  | 36 |
| CoFeMoNi1.4V | FCC+IM(Co2Mo3) | MP | IM |  | 36 |
| CoFeMoNi1.6V | FCC+IM(Co2Mo3) | MP | IM |  | 36 |
| CoFeMoNi1.8V | FCC+IM(Co2Mo3) | MP | IM |  | 36 |
| CoFeMoNi2.0V | FCC+IM(Co2Mo3) | MP | IM |  | 36 |
| CoFeMo0.2NiV | FCC+IM(CoMo2Ni) | MP | IM |  | 36 |
| CoFeMo0.4NiV | FCC+IM(CoMo2Ni) | MP | IM |  | 36 |
| CoFeMo0.6NiV | FCC+IM(CoMo2Ni) | MP | IM |  | 36 |
| CoFeMo0.8NiV | FCC+IM(CoMo2Ni) | MP | IM |  | 36 |
| CoFeMoNiV | FCC+IM(CoMo2Ni) | MP | IM |  | 36 |
| CoCrFeNiTi0.5 | FCC+C14+IM+σ | MP | IM |  | 37 |
| Al2.8CoCrCuFe | BCC | SP | SS | BCC | 38 |
| Al3.0CoCrCuFe | BCC | SP | SS | BCC | 38 |
| Al0.3CoCrCuFe | FCC | SP | SS | FCC | 38 |
| Al0.5CoCrCuFe | FCC | SP | SS | FCC | 38 |
| CoCrCuFe | FCC | SP | SS | FCC | 38 |
| Al0.8CoCrCuFe | BCC+2FCC | MP | SS | MSS | 38 |
| Al1.3CoCrCuFe | BCC+FCC | MP | SS | MSS | 38 |
| Al1.5CoCrCuFe | BCC+FCC | MP | SS | MSS | 38 |
| Al1.8CoCrCuFe | BCC+FCC | MP | SS | MSS | 38 |
| Al2.0CoCrCuFe | BCC+FCC | MP | SS | MSS | 38 |
| Al2.3CoCrCuFe | BCC+FCC | MP | SS | MSS | 38 |
| Al2.5CoCrCuFe | BCC+FCC | MP | SS | MSS | 38 |
| AlCoCrCuFe | BCC+FCC | MP | SS | MSS | 38 |
| AlCrCuFeNi0.6 | BCC+FCC+AlFe0.23Ni0.77 | MP | IM |  | 39 |
| AlCrCuFeNi0.8 | BCC+FCC+AlFe0.23Ni0.78 | MP | IM |  | 39 |
| AlCrCuFeNi1.2 | BCC+FCC+AlFe0.23Ni0.79 | MP | IM |  | 39 |
| AlCrCuFeNi1.4 | BCC+FCC+AlFe0.23Ni0.80 | MP | IM |  | 39 |
| HfMoTaTiZr | BCC | SP | SS | BCC | 40 |
| AlCoCrFeMo0.5 | B2+σ | MP | IM |  | 41 |
| AlCoCrFeMo0.5Ni0.5 | B2+σ | MP | IM |  | 41 |
| AlCoCrFeMo0.5Ni1.5 | FCC+B2+σ | MP | IM |  | 41 |
| AlCoCrFeMo0.5Ni2.0 | FCC+B2+σ | MP | IM |  | 41 |
| HfMo0.25NbTaTiZr | BCC | SP | SS | BCC | 42 |
| HfMo0.50NbTaTiZr | BCC | SP | SS | BCC | 42 |
| HfMo0.75NbTaTiZr | BCC | SP | SS | BCC | 42 |
| HfMoNbTaTiZr | BCC | SP | SS | BCC | 42 |
| AlCrMoTi | BCC | SP | SS | BCC | 43 |
| AlCrMoTiV | BCC | SP | SS | BCC | 43 |
| AlCrTi | BCC+B2 | MP | IM |  | 43 |
| AlCrTiV | BCC+B2 | MP | IM |  | 43 |
| AlMoTi | BCC+B2 | MP | IM |  | 43 |
| AlMoTiV | BCC+B2 | MP | IM |  | 43 |
| AlTiV | BCC+B2 | MP | IM |  | 43 |
| CoFeMnTi0.5VZr | C14 | SP | IM |  | 44 |
| CoFeMnTi1.5VZr | C14 | SP | IM |  | 44 |
| CoFeMnTi2.0VZr | C14 | SP | IM |  | 44 |
| CoFeMnTi2.5VZr | C14 | SP | IM |  | 44 |
| CoFeMnTiV0.4Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiV0.7Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiV1.3Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiV1.6Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiV2.0Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiV2.3Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiV2.6Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiV3.0Zr | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr0.4 | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr0.7 | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr1.3 | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr1.6 | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr2.0 | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr2.3 | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr2.6 | C14 | SP | IM |  | 44 |
| CoFeMnTiVZr3.0 | C14 | SP | IM |  | 44 |
| Al0.875CoCrFeNi | BCC | SP | SS | BCC | 45 |
| Al0.25CoCrFeNi | FCC | SP | SS | FCC | 45 |
| Al0.375CoCrFeNi | FCC | SP | SS | FCC | 45 |
| Al0.75CoCrFeNi | BCC+FCC | MP | SS | MSS | 45 |
| Al1.25CoCrFeNi | BCC+B2 | MP | IM |  | 45 |
| Al0.5CoCrCu0.5FeNi | FCC | SP | SS | FCC | 46 |
| AlCo3.5CrCu0.5FeNi | FCC | SP | SS | FCC | 46 |
| AlCo0.5CrCu0.5FeNi | BCC+FCC | MP | SS | MSS | 46 |
| AlCo2CrCu0.5FeNi | BCC+FCC | MP | SS | MSS | 46 |
| AlCo3.0CrCu0.5FeNi | BCC+FCC | MP | SS | MSS | 46 |
| AlCoCr1.5Cu0.5FeNi | BCC+FCC | MP | SS | MSS | 46 |
| AlCoCrCu0.5FeNi0.5 | BCC+FCC | MP | SS | MSS | 46 |
| AlCoCrCu0.5FeNi1.5 | BCC+FCC | MP | SS | MSS | 46 |
| AlCoCrCu0.5FeNi2.0 | BCC+FCC | MP | SS | MSS | 46 |
| AlCoCu0.5FeNi | BCC+FCC | MP | SS | MSS | 46 |
| AlCrCu0.5FeNi | BCC+B2 | MP | IM |  | 46 |
| AlCoCr0.5Cu0.5FeNi | BCC+FCC+B2 | MP | IM |  | 46 |
| AlCoCrCu0.5FeNi2.5 | BCC+L12 | MP | IM |  | 46 |
| AlCoCrCu0.5Fe | FCC+B2 | MP | IM |  | 46 |
| AlCo1.5CrCu0.5FeNi | FCC+B2 | MP | IM |  | 46 |
| AlCoCr2Cu0.5FeNi | FCC+B2 | MP | IM |  | 46 |
| AlCoCrCu0.5Fe1.5Ni | FCC+B2 | MP | IM |  | 46 |
| AlCoCrCu0.5Fe2Ni | FCC+B2 | MP | IM |  | 46 |
| Al1.5CoCrCu0.5FeNi | B2 | SP | IM |  | 46 |
| Al2CoCrCu0.5FeNi | B2 | SP | IM |  | 46 |
| AlCoCrCu0.5FeNi3.0 | L12 | SP | IM |  | 46 |
| AlCoCrCuFeNiV | BCC+FCC | MP | SS | MSS | 47 |
| AlCoCrCuFeNiTi | BCC+FCC+B2 | MP | IM |  | 47 |
| AlCoCrCuFeMnNi | BCC+FCC+IM | MP | IM |  | 47 |
| AlCoCr2FeNi | B2+L12 | MP | IM |  | 48 |
| CrCuFeMoNi | FCC | SP | SS | FCC | 49 |
| CrCuFeNiZr | BCC+IM | MP | IM |  | 49 |
| AlHfNbTaTiZr | 2BCC | MP | SS | BCC | 50 |
| Al0.3HfNbTaTiZr | BCC | SP | SS | BCC | 50 |
| Al0.5HfNbTaTiZr | BCC | SP | SS | BCC | 50 |
| Al0.75HfNbTaTiZr | BCC | SP | SS | BCC | 50 |
| HfNbTaTiZr | BCC | SP | SS | BCC | 50 |
| CoCuFeMnNi | FCC | SP | SS | FCC | 51 |
| CoCuFeMnNiSn0.03 | FCC | SP | SS | FCC | 51 |
| CoCuFeMnNiSn0.05 | FCC+Cu5.6Sn | MP | IM |  | 51 |
| CoCuFeMnNiSn0.08 | FCC+Cu5.6Sn | MP | IM |  | 51 |
| CoCuFeMnNiSn0.10 | FCC+Cu5.6Sn | MP | IM |  | 51 |
| CoCuFeMnNiSn0.20 | FCC+Cu5.6Sn | MP | IM |  | 51 |
| CoCuFeNi | FCC | SP | SS | FCC | 52 |
| CoCuFeNiSn0.02 | FCC | SP | SS | FCC | 52 |
| CoCuFeNiSn0.04 | FCC+Cu81Sn22 | MP | IM |  | 52 |
| CoCuFeNiSn0.05 | FCC+Cu81Sn22 | MP | IM |  | 52 |
| CoCuFeNiSn0.07 | FCC+Cu81Sn22 | MP | IM |  | 52 |
| CoCuFeNiSn0.10 | FCC+Cu81Sn22 | MP | IM |  | 52 |
| CoCuFeNiSn0.20 | FCC+Cu81Sn22 | MP | IM |  | 52 |
| CoCuFeNiSn0.50 | FCC+Cu81Sn22 | MP | IM |  | 52 |
| CoCrFeNb0.103Ni | FCC+Laves | MP | IM |  | 53 |
| CoCrFeNb0.155Ni | FCC+Laves | MP | IM |  | 53 |
| CoCrFeNb0.206Ni | FCC+Laves | MP | IM |  | 53 |
| CoCrFeNb0.309Ni | FCC+Laves | MP | IM |  | 53 |
| CoCrFeNb0.412Ni | FCC+Laves | MP | IM |  | 53 |
| HfMo0.5NbTiV0.5 | BCC | SP | SS | BCC | 54 |
| HfMo0.5NbSi0.3TiV0.5 | BCC+IM | MP | IM |  | 54 |
| HfMo0.5NbSi0.5TiV0.5 | BCC+IM | MP | IM |  | 54 |
| HfMo0.5NbSi0.7TiV0.5 | BCC+IM | MP | IM |  | 54 |
| Al0.8CoCrCuFeNi | BCC+FCC | MP | SS | MSS | 55 |
| AlCoCrFeNi2.1 | FCC+B2 | MP | IM |  | 56 |
| Al2CoCrFeNi | BCC | SP | SS | BCC | 57 |
| CoCrFeNiPd2 | FCC | SP | SS | FCC | 57 |
| CuHfNiTiZr | AM | AM |  |  | 58 |
| AlCoCrFeNb0.1Ni | BCC | SP | SS | BCC | 59 |
| AlCoCrFeNb0.25Ni | BCC+Laves | MP | IM |  | 59 |
| AlCoCrFeNb0.5Ni | BCC+Laves | MP | IM |  | 59 |
| HfNbTaZr | BCC | SP | SS | BCC | 60 |
| Al23Co15Cr23Cu8Fe15Ni16 | BCC+B2+IM | MP | IM |  | 61 |
| Al8Co17Cr17Cu8Fe17Ni33 | FCC+L12 | MP | IM |  | 61 |
| Hf0.75NbTa0.5Ti1.5Zr1.25 | BCC | SP | SS | BCC | 62 |
| Al0.2MoTaTiV | BCC | SP | SS | BCC | 63 |
| Al0.6MoTaTiV | BCC | SP | SS | BCC | 63 |
| AlMoTaTiV | BCC | SP | SS | BCC | 63 |
| MoTaTiV | BCC | SP | SS | BCC | 63 |
| Cr2CuFe2Mn2Ni2 | 2FCC | MP | SS | FCC | 64 |
| CrCu2Fe2MnNi2 | 2FCC | MP | SS | FCC | 64 |
| CrCuFeMn2Ni2 | FCC | SP | SS | FCC | 64 |
| Cr2Cu2FeMnNi2 | BCC+2FCC | MP | SS | MSS | 64 |
| Cr2CuFe2MnNi | BCC+2FCC | MP | SS | MSS | 64 |
| CrCu2Fe2Mn2Ni | BCC+2FCC | MP | SS | MSS | 64 |
| Cr2Cu2FeMn2Ni | BCC+FCC | MP | SS | MSS | 64 |
| CrMo0.5NbTa0.5TiZr | 2BCC+C15 | MP | IM |  | 65 |
| MoNbTaVW | BCC | SP | SS | BCC | 66 |
| MoNbTaW | BCC | SP | SS | BCC | 66 |
| Hf0.5Nb0.5Ta0.5Ti1.5Zr | BCC | SP | SS | BCC | 67 |
| CoCrFeNiTi0.3 | FCC+HCP+L12 | MP | IM |  | 68 |
| Al0.3CoCrFeNiTi0.1 | FCC | SP | SS | FCC | 69 |
| CoCrFeMo0.5Ni | FCC+σ | MP | IM |  | 70 |
| CoCrFeMo0.85Ni | FCC+σ+D85 | MP | IM |  | 70 |
| CrCuFeNi | FCC | SP | SS | FCC | 71 |
| CoCrFeMnNi | FCC | SP | SS | FCC | 72 |
| CoCrFeMnNiV0.25 | FCC | SP | SS | FCC | 72 |
| CoCrFeMnNiV0.5 | FCC+σ | MP | IM |  | 72 |
| CoCrFeMnNiV0.75 | FCC+σ | MP | IM |  | 72 |
| Al0.5CrNbTi2V0.5 | BCC | SP | SS | BCC | 73 |
| AlNbTiV | BCC | SP | SS | BCC | 74 |
| DyGdLuTbTm | HCP | SP | SS | HCP | 75 |
| DyGdLuTbY | HCP | SP | SS | HCP | 75 |
| CoCrFeMn0.2NiPd | FCC+MnxPdy | MP | IM |  | 76 |
| CoCrFeMn0.4NiPd | FCC+MnxPdy | MP | IM |  | 76 |
| CoCrFeMn0.6NiPd | FCC+MnxPdy | MP | IM |  | 76 |
| CoCrFeMn0.8NiPd | FCC+MnxPdy | MP | IM |  | 76 |
| AlCoCrFeNiTiVZr | AM | AM |  |  | 77 |
| AlCoFeNiTiVZr | AM | AM |  |  | 77 |
| AlCrTaTiZr | AM | AM |  |  | 77 |
| AlFeNiTiVZr | AM | AM |  |  | 77 |
| CoCrCuFeNiTiVZr | AM | AM |  |  | 77 |
| CoCrFeMoNiTiVZr | AM | AM |  |  | 77 |
| CoCuFeNiTiVZr | AM | AM |  |  | 77 |
| CoFeMoNiTiVZr | AM | AM |  |  | 77 |
| CuFeNiTiVZr | AM | AM |  |  | 77 |
| Cu6HfTiZr2 | AM | AM |  |  | 77 |
| FeMoNiTiVZr | AM | AM |  |  | 77 |
| NbTaTiZr | BCC | SP | SS | BCC | 78 |
| CoCr2FeNi | BCC+FCC | MP | SS | MSS | 79 |
| CoCrFeHfNi | BCC+C15 | MP | IM |  | 79 |
| CoCrFeNiZr | BCC+C15 | MP | IM |  | 79 |
| CoCrFeNiY | BCC+YX2+YNi+Y2X17 | MP | IM |  | 79 |
| CoCrFeNITa | FCC+C14 | MP | IM |  | 79 |
| CoCrFeNiW | FCC+μ+W | MP | IM |  | 79 |
| CoCrFeNiV | FCC+σ | MP | IM |  | 79 |
| Al0.8CrFe1.5MnNi0.5 | BCC | SP | SS | BCC | 80 |
| Al1.2CrFe1.5MnNi0.5 | BCC | SP | SS | BCC | 80 |
| CrFe1.5MnNi0.5 | FCC+σ | MP | IM |  | 80 |
| AlCo0.5CrCuFeNi | BCC+FCC+B2 | MP | IM |  | 81 |
| AlCoCr0.5CuFeNi | BCC+FCC+B2 | MP | IM |  | 81 |
| AlCoCrCuFe0.5Ni | BCC+FCC+B2 | MP | IM |  | 81 |
| AlCoCrCuFeNi0.5 | BCC+FCC+B2 | MP | IM |  | 81 |
| AlCo1.5CrFeNiTi0.5 | BCC+FCC | MP | SS | MSS | 82 |
| AlCo2CrFeNiTi0.5 | BCC+FCC | MP | SS | MSS | 82 |
| AlCo3.0CrFeNiTi0.5 | BCC+FCC | MP | SS | MSS | 82 |
| Al0.75CoCrCu0.25FeNiTi0.5 | 2BCC | MP | SS | BCC | 83 |
| Al0.25CoCrCu0.75FeNiTi0.5 | 2FCC | MP | SS | FCC | 83 |
| Al0.5CoCrCu0.5FeNiTi0.5 | 2BCC+FCC | MP | SS | MSS | 83 |
| MoNbTaTiZr | 2BCC | MP | SS | BCC | 84 |
| Al0.1CoCrFeNi | FCC | SP | SS | FCC | 85 |
| Al0.4CoCrFeNi | FCC | SP | SS | FCC | 85 |
| CoCrFeNi | FCC | SP | SS | FCC | 85 |
| Al0.9CoCrFeNi | BCC+B2 | MP | IM |  | 85 |
| Al1.2CoCrFeNi | BCC+B2 | MP | IM |  | 85 |
| Al1.8CoCrFeNi | BCC+B2 | MP | IM |  | 85 |
| Al0.6CoCrFeNi | BCC+FCC+B2 | MP | IM |  | 85 |
| Al0.7CoCrFeNi | BCC+FCC+B2 | MP | IM |  | 85 |
| Al0.8CoCrFeNi | BCC+FCC+B2 | MP | IM |  | 85 |
| CoCrCuFeNiTi0.5 | 2FCC | MP | SS | FCC | 86 |
| CoCrCuFeNiTi0.8 | FCC+C14 | MP | IM |  | 86 |
| AlCoFeNiTi | BCC | SP | SS | BCC | 87 |
| CoCuFeNiTi | FCC | SP | SS | FCC | 87 |
| CoFeNiTi | FCC+IM | MP | IM |  | 87 |
| CoCrCu0.5FeMoNi | BCC+2FCC | MP | SS | MSS | 88 |
| CoCrCu0.8FeMoNi | BCC+2FCC | MP | SS | MSS | 88 |
| CoCrCuFeMoNi | BCC+2FCC | MP | SS | MSS | 88 |
| CoCrCu0.1FeMoNi | BCC+FCC | MP | SS | MSS | 88 |
| CoCrCu0.3FeMoNi | BCC+FCC | MP | SS | MSS | 88 |
| HfNbTiZr | BCC | SP | SS | BCC | 89 |
| Mo1.5NbTiVZr | 2BCC | MP | SS | BCC | 90 |
| Mo1.7NbTiVZr | 2BCC | MP | SS | BCC | 90 |
| Mo2NbTiVZr | 2BCC | MP | SS | BCC | 90 |
| Mo0.1NbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| Mo0.3NbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| Mo0.3NbTiVZr | BCC | SP | SS | BCC | 90 |
| Mo0.5NbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| Mo0.5NbTiVZr | BCC | SP | SS | BCC | 90 |
| Mo0.7NbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| Mo0.7NbTiVZr | BCC | SP | SS | BCC | 90 |
| Mo1.3NbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| Mo1.3NbTiVZr | BCC | SP | SS | BCC | 90 |
| Mo1.5NbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| MoNbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| NbTiV0.3Zr | BCC | SP | SS | BCC | 90 |
| NbTiVZr | BCC | SP | SS | BCC | 90 |
| Cr0.66FeMnNi | FCC | SP | SS | FCC | 91 |
| CoCrMnNi | FCC | SP | SS | FCC | 92 |
| CoCrNi | FCC | SP | SS | FCC | 92 |
| CoFeMnNi | FCC | SP | SS | FCC | 92 |
| CoMnNi | FCC | SP | SS | FCC | 92 |
| FeMnNi | FCC | SP | SS | FCC | 92 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)85Al15 | AM | AM |  |  | 93 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)88Al12 | AM | AM |  |  | 93 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)90Al10 | AM | AM |  |  | 93 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)92Al8 | AM | AM |  |  | 93 |
| La32Ce32Al16Ni5Cu10Co5 | AM | AM |  |  | 93 |
| La32Ce32Al16Ni5Cu12Co3 | AM | AM |  |  | 93 |
| La32Ce32Al16Ni5Cu5Co10 | AM | AM |  |  | 93 |
| La32Ce32Al16Ni5Cu7Co8 | AM | AM |  |  | 93 |
| AlCoCrCu0.5FeNiTi | AM | AM |  |  | 93 |
| AlCrMoTaTiZr | AM | AM |  |  | 93 |
| Al10Cu22.5La22.5Nd22.5Pr22.5 | AM | AM |  |  | 93 |
| Ni42Ti20Zr20.5Al8Cu5Si4.5 | AM | AM |  |  | 93 |
| ErTbDyNiAl | AM | AM |  |  | 93 |
| AlMoNbSiTaTiVZr | AM | AM |  |  | 93 |
| (Fe44.3Cr5Co5Mo12.8Mn11.2C15.8B5.9)98.5Y1.5 | AM | AM |  |  | 93 |
| Fe39Co9Cr15Mo14C15B6Y2 | AM | AM |  |  | 93 |
| Fe41Co7Cr15Mo14C15B6Y2 | AM | AM |  |  | 93 |
| (Fe0.6Co0.4)48Cr15Mo14C15B6Tm2 | AM | AM |  |  | 93 |
| (Fe0.8Co0.2)48Cr15Mo14C15B6Tm2 | AM | AM |  |  | 93 |
| Fe43Co5Cr15Mo14C15B6Y2 | AM | AM |  |  | 93 |
| Fe45Co3Cr15Mo14C15B6Y2 | AM | AM |  |  | 93 |
| Fe46Mn10Mo16Cr4Ga2C15B7 | AM | AM |  |  | 93 |
| Fe48Mn10Mo13Cr4W3C15B7 | AM | AM |  |  | 93 |
| Fe49Mn10Mo13Cr3W3C15B7 | AM | AM |  |  | 93 |
| Fe49Mn10Mo14Cr4V1C15B7 | AM | AM |  |  | 93 |
| Fe49Mn10Mo14Cr4W1C15B7 | AM | AM |  |  | 93 |
| Fe30Cr30Mo15C15B10 | AM | AM |  |  | 93 |
| Fe37.5Cr15Mo22.5C15B10 | AM | AM |  |  | 93 |
| Fe37.5Cr22.5Mo15C15B10 | AM | AM |  |  | 93 |
| Fe30Co30Ni15Si8B17 | AM | AM |  |  | 93 |
| Zr41Ti14Cu12.5Ni2Be22.5C8 | AM | AM |  |  | 93 |
| Zr41Ti14Cu12.5Ni8Be22.5C2 | AM | AM |  |  | 93 |
| Zr36Nb12Cu10Ni6Fe2Be20Y2Mg12 | AM | AM |  |  | 93 |
| Zr36Ti14Cu12.5Ni5Be20.5Fe12 | AM | AM |  |  | 93 |
| Zr41Ti14Cu12.5Ni2Be22.5Fe8 | AM | AM |  |  | 93 |
| Zr41Ti14Cu12.5Ni5Be22.5Fe5 | AM | AM |  |  | 93 |
| Zr41Ti14Cu12.5Ni8Be22.5Fe2 | AM | AM |  |  | 93 |
| Zr36Nb12Cu10Ni8Be20Y2Mg12 | AM | AM |  |  | 93 |
| Zr26Ti10Cu8Ni8Be20Y4Mg24 | AM | AM |  |  | 93 |
| Zr40Ti15Cu11Ni11Be21.5Y1Mg0.5 | AM | AM |  |  | 93 |
| (Zr0.41Ti0.14Cu0.125Ni0.1Be0.225)98Y2 | AM | AM |  |  | 93 |
| Zr34Ti15Cu10Ni11Be28Y2 | AM | AM |  |  | 93 |
| Zr38.5Ti16.5Ni9.75Cu15.25Be20 | AM | AM |  |  | 93 |
| CaCuMgSrYbZn | AM | AM |  |  | 93 |
| Zn20Ca20Sr20Yb20Li11Mg9 | AM | AM |  |  | 93 |
| SrCaYbMgZn | AM | AM |  |  | 93 |
| ZrHfTiCuCo | AM | AM |  |  | 93 |
| CuFeHfTiZr | AM | AM |  |  | 93 |
| Zr17Ta16Ti19Nb22Si26 | AM | AM |  |  | 93 |
| AlCu0.5Li0.5MgSn0.2 | A5+D02+2IM | MP | IM |  | 94 |
| AlLiMgSnZn | A5+FCC+HCP+D02+IM | MP | IM |  | 94 |
| AlLi0.5MgSn0.2Zn0.5 | FCC+D02+2IM | MP | IM |  | 94 |
| AlCu0.2Li0.5MgZn0.5 | Mg32(AlZn)49 | SP | IM |  | 94 |
| Al0.25NbTaTiV | BCC | SP | SS | BCC | 95 |
| Al0.50NbTaTiV | BCC | SP | SS | BCC | 95 |
| AlNbTaTiV | BCC | SP | SS | BCC | 95 |
| MoNbTaTiV | BCC | SP | SS | BCC | 96 |
| NbTaTiV | BCC | SP | SS | BCC | 97 |
| NbTaTiVW | BCC | SP | SS | BCC | 97 |
| NbTaVW | BCC | SP | SS | BCC | 97 |
| MoNbTaV | BCC | SP | SS | BCC | 98 |
| CoCr0.4Fe8Mn5.4Ni5.2 | FCC | SP | SS | FCC | 99 |
| AlCoCrCuFeNiSi | BCC+FCC | MP | SS | MSS | 100 |
| AlCoCuNi | BCC+FCC | MP | SS | MSS | 100 |
| AlCuNi | FCC+B2 | MP | IM |  | 100 |
| Al0.5CoCrCuNi | FCC | SP | SS | FCC | 101 |
| AlCoCrCuFeNiTiV | BCC+FCC | MP | SS | MSS | 101 |
| AlCoCrCu0.5Ni | BCC+FCC+B2 | MP | IM |  | 101 |
| Al0.3CoCrCuFeNi | FCC | SP | SS | FCC | 102 |
| Al1.3CoCrCuFeNi | FCC+B2 | MP | IM |  | 102 |
| Al1.5CoCrCuFeNi | FCC+B2 | MP | IM |  | 102 |
| Al1.8CoCrCuFeNi | FCC+B2 | MP | IM |  | 102 |
| Al2.0CoCrCuFeNi | FCC+B2 | MP | IM |  | 102 |
| Al2.3CoCrCuFeNi | FCC+B2 | MP | IM |  | 102 |
| Al2.5CoCrCuFeNi | FCC+B2 | MP | IM |  | 102 |
| Cr2MoNbTaVW | 2BCC | MP | SS | BCC | 103 |
| Cr0.5MoNbTaVW | BCC | SP | SS | BCC | 103 |
| CrMoNbTaVW | BCC | SP | SS | BCC | 103 |
| Al1.5CoCrFeNiTi | BCC+B2 | MP | IM |  | 104 |
| Al2.0CoCrFeNiTi | BCC+B2 | MP | IM |  | 104 |
| Al0.5CoCrFeNiTi | BCC+B2+C14 | MP | IM |  | 104 |
| CoCrMoNbTi0.4 | BCC+B2 | MP | IM |  | 105 |
| CoCrMoNb | BCC+B2+Laves | MP | IM |  | 105 |
| CoCrMoNbTi | BCC+B2+Laves | MP | IM |  | 105 |
| CoCrMoNbTi0.2 | BCC+B2+Laves | MP | IM |  | 105 |
| CoCrMoNbTi0.5 | BCC+B2+Laves | MP | IM |  | 105 |
| MoNbTiV0.25Zr | 2BCC | MP | SS | BCC | 106 |
| MoNbTiV0.5Zr | 2BCC | MP | SS | BCC | 106 |
| MoNbTiV0.75Zr | 2BCC | MP | SS | BCC | 106 |
| MoNbTiV1.5Zr | 2BCC | MP | SS | BCC | 106 |
| MoNbTiV2Zr | 2BCC | MP | SS | BCC | 106 |
| MoNbTiV3Zr | 2BCC | MP | SS | BCC | 106 |
| MoNbTiZr | 2BCC | MP | SS | BCC | 106 |
| AlCoCrFeNb0.75Ni | BCC+Laves | MP | IM |  | 106 |
| HfNbSi0.5TiVZr | BCC+Laves+IM | MP | IM |  | 107 |
| HfNbSi0.5TiV | BCC+IM | MP | IM |  | 108 |
| AlCoCrCu0.25FeNi | BCC | SP | SS | BCC | 109 |
| CoCuFeNiV | FCC | SP | SS | FCC | 109 |
| AlTiVYZr | IM | SP | IM |  | 109 |
| BeCuNiTiVZr | IM | SP | IM |  | 109 |
| CoCrCuFeNiTi2 | IM | SP | IM |  | 109 |
| AlCoCrCu0.25FeNiTi0.5 | 2BCC | MP | SS | BCC | 110 |
| AlCoCrCu0.5FeNiTi0.5 | 2BCC | MP | SS | BCC | 110 |
| Al20(CoCrCuFeMnNiTiV)80 | BCC | SP | SS | BCC | 111 |
| Al11.1(CoCrCuFeMnNiTiV)88.9 | BCC+FCC | MP | SS | MSS | 111 |
| Al40(CoCrCuFeMnNiTiV)60 | BCC+D022+IM | MP | IM |  | 111 |
| Al0.25CoCrCu0.75FeNi | FCC | SP | SS | FCC | 112 |
| Al0.75CoCrCu0.25FeNi | BCC+FCC | MP | SS | MSS | 112 |
| AlCoCrFeNiTi0.5 | 2BCC | MP | SS | BCC | 113 |
| AlCoCrFeNiTi1.5 | 2BCC+C14 | MP | IM |  | 113 |
| AlC1.0CoCrFeNi | BCC+Graphite+ε | MP | IM |  | 114 |
| AlC1.5CoCrFeNi | BCC+Graphite+ε | MP | IM |  | 114 |
| AlC0.1CoCrFeNi | BCC+ε | MP | IM |  | 114 |
| AlC0.2CoCrFeNi | BCC+ε | MP | IM |  | 114 |
| AlC0.3CoCrFeNi | BCC+ε | MP | IM |  | 114 |
| AlC0.4CoCrFeNi | BCC+ε | MP | IM |  | 114 |
| AlC0.5CoCrFeNi | BCC+ε | MP | IM |  | 114 |
| AlCoCrCuFeMo0.2Ni | BCC+FCC | MP | SS | MSS | 115 |
| AlCoCrCuFeMo0.4Ni | BCC+α | MP | IM |  | 115 |
| AlCoCrCuFeMo0.6Ni | BCC+α | MP | IM |  | 115 |
| AlCoCrCuFeMo0.8Ni | BCC+α | MP | IM |  | 115 |
| AlCoCrCuFeMoNi | BCC+α | MP | IM |  | 115 |
| AlCoCrFeMo0.1Ni | BCC | SP | SS | BCC | 116 |
| AlCoCrFeMo0.2Ni | BCC+α | MP | IM |  | 116 |
| AlCoCrFeMo0.3Ni | BCC+α | MP | IM |  | 116 |
| AlCoCrFeMo0.4Ni | BCC+α | MP | IM |  | 116 |
| AlCoCrFeNiSi0.4 | 2BCC | MP | SS | BCC | 117 |
| AlCoCrFeNiSi0.2 | BCC | SP | SS | BCC | 117 |
| AlCoCrFeNiSi | 2BCC+δ | MP | IM |  | 117 |
| AlCoCrFeNiSi0.6 | 2BCC+δ | MP | IM |  | 117 |
| AlCoCrFeNiSi0.8 | 2BCC+δ | MP | IM |  | 117 |
| AlCo3.0CuFeNi | FCC | SP | SS | FCC | 118 |
| AlCo0.2CuFeNi | FCC+B2 | MP | IM |  | 118 |
| AlCo0.5CuFeNi | FCC+B2 | MP | IM |  | 118 |
| AlCo1.5CuFeNi | FCC+B2 | MP | IM |  | 118 |
| AlCo2.0CuFeNi | FCC+B2 | MP | IM |  | 118 |
| AlCoCuFeNiSi | BCC+FCC | MP | SS | MSS | 119 |
| AlCoCuFeNiZr | FCC+B2+D2b | MP | IM |  | 119 |
| Al0.25CoFeNi | FCC | SP | SS | FCC | 120 |
| CoFeNi | FCC | SP | SS | FCC | 120 |
| CoFeNiSi0.25 | FCC | SP | SS | FCC | 120 |
| Al0.5CoFeNi | FCC+B2 | MP | IM |  | 120 |
| Al0.75CoFeNi | FCC+B2 | MP | IM |  | 120 |
| CoFeNiSi0.50 | FCC+IM(Ni3Si) | MP | IM |  | 120 |
| CoFeNiSi0.75 | FCC+IM(Ni3Si) | MP | IM |  | 120 |
| AlCoFeNi | B2 | SP | IM |  | 120 |
| Ni45Fe13.33Co13.33Cr13.33Al7.5Ti7.5 | FCC+L12 | MP | IM |  | 121 |
| Cr0.4CuFe0.4MnNi | 2FCC | MP | SS | FCC | 122 |
| AlCoCrFeNi2 | FCC+B2 | MP | IM |  | 123 |
| AlCoCrFeNi2.2 | FCC+B2 | MP | IM |  | 123 |
| Al19Co20Fe20Ni41 | B2+L12 | MP | IM |  | 124 |
| Co9Cr7Cu36Mn25Ni23 | 2FCC | MP | SS | FCC | 125 |
| Al12.5Ni21.875Co21.875Fe21.875Cr21.875 | FCC+BCC+B2 | MP | IM |  | 126 |
| Al12.5Co17.5Cr17.5Fe35Ni17.5 | FCC+BCC+B2 | MP | IM |  | 126 |
| Al13Co21.75Cr21.75Fe21.75Ni21.75 | FCC+BCC+B2 | MP | IM |  | 127 |
| Al13Co21.69Cr21.69Fe21.69Ni21.69C0.25 | FCC+BCC+B2 | MP | IM |  | 127 |
| Al16Co21Cr21Fe21Ni21 | FCC+BCC+B2 | MP | IM |  | 127 |
| Al13Co21Cr21Fe21Ni21Ti3 | FCC+BCC+B2 | MP | IM |  | 127 |
| Al13Co20.94Cr20.94Fe20.94Ni20.94Ti3C0.25 | FCC+BCC+B2 | MP | IM |  | 127 |
| Fe23.5Co23.5Ni23.5Cr23.5Ti2Al4 | FCC | SP | SS | FCC | 128 |
| CoCrFeMo0.1Ni | FCC | SP | SS | FCC | 129 |
| CoCrFeMo0.2Ni | FCC | SP | SS | FCC | 129 |

**Table S2. The hardness dataset which consists of 290 as-cast CCAs**

| Alloys | Hardness (HV) |
| --- | --- |
| Al0.25CoCrFeNi | 110 |
| Al0.1CoCrFeNi | 117 |
| CoFeNi | 124 |
| Al0.4CoCrFeNi | 128 |
| CoCrFeNi | 129.8 |
| Al0.375CoCrFeNi | 130.8 |
| CoCrCuFeNi | 133 |
| CoCrCuFe | 134 |
| Al0.25CoFeNi | 136 |
| Al0.3CoCrFeNi | 137.5 |
| CoCrFeMnNi | 144 |
| CoFeNiSi0.25 | 148 |
| CoCrFeMnNiV0.25 | 151 |
| Al0.2CrCuFeNi2 | 161 |
| Al0.3CoCrFeMo0.1Ni | 162 |
| AlCo3.0CuFeNi | 166.4 |
| Al0.3CrCuFeNi2 | 168 |
| Al0.04(CoCrFeMnNi) | 171 |
| CoCrCu0.5FeNi | 173.5 |
| Al0.3CoCrCuFeNi | 179 |
| Al0.02(CoCrFeMnNi) | 180 |
| Al0.3CoCrCuFe | 180 |
| CoCrFeNiTa0.1 | 180 |
| Al0.07(CoCrFeMnNi) | 182 |
| Al0.08(CoCrFeMnNi) | 183 |
| CoCrFeMnNiV0.5 | 186 |
| CoCuFeMnNiSn0.03 | 192 |
| Al0.3CoCrFeNiTi0.1 | 199 |
| Al0.4CrCuFeNi2 | 199 |
| Al0.5CoCrFeNi | 200.7 |
| Al0.5CoCrCuFeNiV0.2 | 204 |
| CoCuFeMnNiSn0.05 | 205 |
| Al0.5CoCrCuFe | 207 |
| Al0.5CoCrCuNi | 208 |
| Al0.5CoFeNi | 208 |
| CoCuFeMnNi | 208 |
| Al0.5CoCrCuFeNi | 214.5 |
| CoCuFeMnNiSn0.08 | 219 |
| Al0.09(CoCrFeMnNi) | 220 |
| CoCrFeMo0.3Ni | 220 |
| Al0.5CoCrCuFeNiV0.4 | 231 |
| CoFeNiV | 238.1 |
| Al0.5CrCuFeNi2 | 239 |
| Al0.6CoCrFeNi | 240 |
| AlCo2.0CuFeNi | 249.3 |
| CoCuFeMnNiSn0.10 | 253 |
| CrCuFeMoNi | 263 |
| CoFeMo0.2NiV | 267.3 |
| Al0.8CoCrCuFe | 271 |
| Al0.5CoCrCuFeNiTi0.2 | 272 |
| Al0.8CoCrCuFeNi | 273.3 |
| AlAuCoCrCuNi | 276 |
| CoCrFeNiTa0.2 | 277 |
| Al0.10(CoCrFeMnNi) | 278 |
| Al0.6CrCuFeNi2 | 279 |
| Al8Co17Cr17Cu8Fe17Ni33 | 280 |
| CoFeNiSi0.50 | 286 |
| CrCuFeMnNi | 286.5 |
| Al0.7CrCuFeNi2 | 291 |
| Al0.3CrFe1.5MnNi0.5 | 297 |
| NbTaTiV | 298 |
| Hf0.5Nb0.5Ta0.5Ti1.5Zr | 301 |
| Al0.2CrFe1.5Ni0.5 | 303.8 |
| HfNbTaTiZr | 306.7 |
| CoCrFeNb0.25Ni | 309 |
| Al0.8CrCuFeNi2 | 316 |
| CoCuFeMnNiSn0.20 | 319 |
| Al0.5CoCrCuFeNiTi0.4 | 321 |
| Al0.3CrCuFeMnNi | 327 |
| Al0.5CoCrCuFeNiV0.6 | 328 |
| Al0.7CoCrFeNi | 337 |
| Al0.9CrCuFeNi2 | 338 |
| CoCrFeMnNiV0.75 | 342 |
| AlCr0.5CuFeNiTi | 343.7 |
| AlCoCuNi | 348 |
| AlCrCuFeNiTi | 348.8 |
| Al0.3HfNbTaTiZr | 353 |
| Hf0.75NbTa0.5Ti1.5Zr1.25 | 356.9 |
| AlCr1.5CuFeNiTi | 359.3 |
| HfNbTaZr | 364.5 |
| CoCrFeNiTa0.3 | 365 |
| AlCo1.5CuFeNi | 366.4 |
| AlCoCr0.5CuFeNi | 367 |
| AlCrCuFeNi1.4 | 367 |
| AlCr2CuFeNiTi | 368.3 |
| AlCr3CuFeNiTi | 369.3 |
| Al0.3CrFe1.5Ni0.5 | 371.3 |
| AlCuNi | 379 |
| Al0.75CoFeNi | 382 |
| CoFeMoNi2.0V | 382.3 |
| HfNbTiVZr | 387.5 |
| Al0.75CoCrFeNi | 388 |
| Al0.8CoCrFeNi | 388 |
| Al0.5CrCuFeMnNi | 390 |
| Al0.8CrCu1.5FeMnNi | 393 |
| AlCrCuFeNi2 | 393 |
| HfMo0.25NbTaTiZr | 395 |
| Al0.5CrFe1.5MnNi0.5 | 396 |
| Al0.5HfNbTaTiZr | 396 |
| Hf0.5Mo0.5NbTiZr | 400 |
| CoFeMo0.4NiV | 402.5 |
| HfMo0.5NbTiV0.5 | 403 |
| AlCoCrFeMo0.5Ni2.0 | 404 |
| Al0.11(CoCrFeMnNi) | 405 |
| AlCoCrCuFe | 407 |
| AlCrCuFeNi1.2 | 407 |
| AlCoCrCuFeNI | 412.4 |
| Al0.5B0.2CoCrCuFeNi | 415 |
| AlCoCrCuFe0.5Ni | 418 |
| AlCoCrCuNi | 418 |
| CoCrFeMo0.85Ni | 420 |
| AlCoCrCuFeNi0.5 | 423 |
| Al0.5CoCrFeMo0.5Ni | 425 |
| Al0.75HfNbTaTiZr | 427 |
| MoTaTiV | 433.2 |
| Al0.8CrCuFeMnNi | 436 |
| MoNbTiV | 440.7 |
| Al0.8CrCuFeMn1.5Ni | 441 |
| AlHfNbTaTiZr | 441 |
| Hf0.5Mo0.5NbSi0.1TiZr | 442 |
| MoNbTaTiV | 443 |
| Al0.15CrFe1.5Ni0.5 | 443.2 |
| Al0.5CoCrCuFeNiV0.8 | 447 |
| NbTaTiVW | 447 |
| Al0.2MoTaTiV | 450 |
| AlCoFeNi | 450 |
| Al0.4CrFe1.5Ni0.5 | 450.1 |
| AgAlCoCrCuNi | 451 |
| Al0.5CoCrCuFeNiTi0.6 | 458 |
| AlCoCrCu0.5FeNi | 458 |
| Al0.25MoNbTiV | 460.1 |
| Al0.8CrCuFe1.5MnNi | 462 |
| CrHfNbTiZr | 464 |
| HfNbSi0.5TiVZr | 464 |
| Al1.3CoCrCuFeNi | 470 |
| AlCoCuFeNiZr | 472 |
| AlCrFeNi | 472.4 |
| AlCo0.5CrCuFeNi | 473 |
| Al1.3CoCrCuFe | 476 |
| Al1.2CoCrFeNi | 478 |
| AlTiV | 478 |
| HfMo0.50NbTaTiZr | 480 |
| Al1.5CoCrFeNi | 482 |
| Al0.6MoTaTiV | 483.3 |
| Al1.8CoCrFeNi | 484 |
| Al0.12(CoCrFeMnNi) | 486 |
| AlCrCuFeNi0.8 | 486 |
| Al0.50MoNbTiV | 486.5 |
| Al1.25CoCrFeNi | 487 |
| AlMoTiV | 489 |
| HfNbSi0.5TiV | 490 |
| CoCrFeNiTa0.4 | 492 |
| HfMo0.75NbTaTiZr | 492 |
| NbTaVW | 493 |
| Hf0.5Mo0.5NbSi0.3TiZr | 494 |
| AlCrCuFeMnNi | 495 |
| CuHfNiTiZr | 495 |
| AlCoCrCu0.5Ni | 496 |
| AlCrCuFeNi0.6 | 496 |
| CoCrFeNiTa0.5 | 498 |
| MoNbTaTiW | 498.7 |
| MoNbTaTiZr | 499.6 |
| HfMo0.5NbSi0.3TiV0.5 | 500 |
| AlCoCrFeNi | 501.75 |
| MoNbTaV | 504 |
| Al0.5B0.6CoCrCuFeNi | 505 |
| HfMoNbTaTiZr | 505 |
| Al2.0CoCrFeNi | 506.5 |
| Al1.5CoCrCuFeNi | 507 |
| AlMoTaTiV | 509.5 |
| Al1.5CoCrCuFe | 510 |
| CoFeMoNi1.8V | 510.3 |
| MoNbTaTiVW | 510.3 |
| Al1.125CuFe0.75NiTi1.125 | 516 |
| AlCuFeNiTi | 516 |
| Al0.75MoNbTiV | 516.6 |
| CoCrFeNb0.5Ni | 518 |
| Al1.2CrCuFeNi2 | 520 |
| CoFeMoNi1.6V | 520.4 |
| CoCrFeNb0.45Ni | 521 |
| AlMoTi | 524 |
| Hf0.5Mo0.5NbSi0.5TiZr | 524 |
| Al0.9CoCrFeNi | 527 |
| Al0.13(CoCrFeMnNi) | 530 |
| AlCo0.2CuFeNi | 531.4 |
| Al0.15(CoCrFeMnNi) | 533 |
| Al0.16(CoCrFeMnNi) | 535 |
| AlCoCuFeNi | 536.2 |
| AlMoNbTiV | 536.6 |
| AlCuNiTi | 537 |
| CoFeMoNi1.4V | 537.5 |
| Al0.875CoCrFeNi | 538 |
| Al0.14(CoCrFeMnNi) | 539 |
| Al0.20(CoCrFeMnNi) | 539 |
| CrMo0.5NbTa0.5TiZr | 540 |
| HfMoTaTiZr | 542 |
| AlCo0.5CuFeNi | 544.9 |
| AlCrFeMo0.2Ni | 548.5 |
| Al1.5CrCuFeNi2 | 549 |
| Al1.8CrCuFeNi2 | 549 |
| CoCrFeNiTa0.75 | 550 |
| Al1.6CrCuFeNi2 | 553 |
| AlCrTiV | 555 |
| AlCrMoTiV | 556 |
| Al1.50MoNbTiV | 556.4 |
| CoFeMo0.6NiV | 556.7 |
| Al1.8CoCrCuFe | 557 |
| Al1.8CoCrCuFeNi | 557 |
| HfNbTaTiVZr | 558 |
| AlCoCrCuFeNiTiV | 560 |
| Al2.0CoCrCuFeNi | 562 |
| AlCoCrCuFeNiSi | 566 |
| CrCuFeNiZr | 566 |
| Al2.0CoCrCuFe | 567 |
| Al2.0CrCuFeNi2 | 567 |
| CoFeNiSi0.75 | 568 |
| AlCoCrFeNb0.1Ni | 569 |
| Al0.5CoCrCuFeNiV1.4 | 577 |
| AlCoCuFeNdNi | 577.6 |
| Al2.2CrCuFeNi2 | 578 |
| Al0.5CoCrCuFeNiV1.2 | 579 |
| Al23Co15Cr23Cu8Fe15Ni16 | 580 |
| Hf0.5Mo0.5NbSi0.7TiZr | 580 |
| HfMo0.5NbSi0.5TiV0.5 | 582 |
| Al0.5CoCrCuFeNiV2.0 | 587 |
| Al0.5CoCrCuFeNiTi0.8 | 590 |
| Al0.5CoCrCuFeNiV1.6 | 594 |
| Al2.5CrCuFeNi2 | 596 |
| AlCo2CrFeMo0.5Ni | 596 |
| Al0.5CoCrCuFeNiV1.8 | 597 |
| AlCoFeMo0.5Ni | 600 |
| CoCrFeNb0.75Ni | 600 |
| AlCoCr0.5FeMo0.5Ni | 602 |
| CoCrFeNbNi | 602 |
| CoFeMoNi1.2V | 602 |
| Al2.3CoCrCuFe | 603 |
| Al2.3CoCrCuFeNi | 603 |
| Al2.0CoCrFeMo0.5Ni | 605 |
| CoFeMo0.8NiV | 605.6 |
| AlCrMoTi | 606 |
| HfMo0.5NbSi0.7TiV0.5 | 612 |
| CoCrFeNiTi0.5 | 616.8 |
| AlCrFeMo0.5Ni | 621.5 |
| Al2.5CoCrCuFe | 624 |
| Al2.5CoCrCuFeNi | 624 |
| CoFeMoNiV | 624.6 |
| AlCoCuFeNiTi | 625.3 |
| AlCoCrFeMo0.5Ni1.5 | 627 |
| AlCoCrFe1.5Mo0.5Ni | 635 |
| Al0.5CoCrCuFeNiTi1.0 | 636 |
| Al0.5CoCrCuFeNiV1.0 | 639 |
| AlCoCrFe2Mo0.5Ni | 639 |
| Hf0.5Mo0.5NbSi0.9TiZr | 640 |
| Al3.0CoCrCuFe | 644 |
| Al3.0CoCrCuFeNi | 644 |
| Al0.5CoCrCuFeNiTi1.2 | 646 |
| CoCrFeMnNiV | 650 |
| Al1.5CoCrFeMo0.5Ni | 655 |
| Al2.8CoCrCuFeNi | 655 |
| Al0.5CoCrCuFeNiTi1.6 | 657 |
| Al2.8CoCrCuFe | 657 |
| Al0.5CoCrCuFeNiTi1.4 | 664 |
| Al0.5CoCrCuFeNiTi1.8 | 667 |
| AlCoCrFeNb0.25Ni | 668 |
| Cr0.5MoNbTaVW | 675.5 |
| AlCoCuFeNiSi | 680.4 |
| Al0.5CoCrCuFeNiTi2.0 | 696 |
| AlCrTi | 704 |
| CrMoNbTaVW | 704.6 |
| AlCo1.5CrFeMo0.5Ni | 711 |
| Al0.5BCoCrCuFeNi | 736 |
| AlCoCrFeNb0.5Ni | 747 |
| AlCoCrFe0.6Mo0.5Ni | 754 |
| Cr2MoNbTaVW | 754.9 |
| AlCoCrFeMo0.5Ni | 763.4 |
| AlCoCrFeMo0.5Ni0.5 | 775 |
| AlCo0.5CrFeMo0.5Ni | 788 |
| AlCoCr1.5FeMo0.5Ni | 800 |
| CoCrFeNb1.2Ni | 817 |
| CoCrMoNbTi0.4 | 829.6 |
| CoCrMoNbTi0.5 | 844.9 |
| CoCrMoNbTi | 849.6 |
| AlCoCr2FeMo0.5Ni | 850 |
| AlCrFeMo0.8Ni | 853.8 |
| AlCoCrCu0.5FeNiSi | 860 |
| AlCoCrCuFeMoNiTiVZr | 890 |
| AlCoCrFeMo0.5 | 904 |
| AlCrFeMoNi | 911.5 |
| CoCrMoNbTi0.2 | 916.2 |
| CoCrMoNb | 959.6 |

**Table S3. The tensile yield strength (YS) and ultimate tensile strength (UTS) dataset which consists of 71 as-cast CCAs**

| Alloys | YS (MPa) | UTS (MPa) |
| --- | --- | --- |
| AlCrCuNiFeCo | 790 | 790 |
| CoCrFeMnNi | 209 | 493.5 |
| Al4(CoCrFeMnNi)96 | 220 | 502 |
| Al7(CoCrFeMnNi)93 | 242 | 530 |
| Al8(CoCrFeMnNi)92 | 285 | 644 |
| Al9(CoCrFeMnNi)91 | 331 | 727 |
| Al10(CoCrFeMnNi)90 | 526 | 996 |
| Al11(CoCrFeMnNi)89 | 832 | 1174 |
| Al0.3CoCrFeNi | 275 | 528 |
| CoCrFeNiNb0.103 | 317 | 622 |
| CoCrFeNiNb0.155 | 321 | 744 |
| CoCrFeNiNb0.206 | 402 | 807 |
| CoCrFeNiNb0.309 | 478 | 879 |
| CoCrFeNiNb0.412 | 637 | 1004 |
| HfNbTiZr | 879 | 969 |
| Fe40Mn40Co10Cr10 | 240 | 489 |
| Ni45Fe13.33Co13.33Cr13.33Al7.5Ti7.5 | 811 | 1009 |
| Cr0.4CuFe0.4MnNi | 438 | 884 |
| AlCoCrFeNi2 | 545.6 | 1076 |
| AlCoCrFeNi2.1 | 546.4 | 1046 |
| AlCoCrFeNi2.2 | 545 | 1120 |
| Al19Co20Fe20Ni41 | 577 | 1103 |
| Co9Cr7Cu36Mn25Ni23 | 401 | 700 |
| Al12.5Ni21.875Co21.875Fe21.875Cr21.875 | 598 | 930 |
| Al12.5Ni17.5Co17.5Fe35Cr17.5 | 991 | 1245 |
| CoCrNi | 100 | 450 |
| TaHfZrTi | 1400 | 1500 |
| Ta0.6HfZrTi | 800 | 1080 |
| Ta0.5HfZrTi | 700 | 1095 |
| Ta0.4HfZrTi | 400 | 1116 |
| Al13Co21.74Cr21.74Fe21.74Ni21.74 | 412 | 932 |
| Al13Co21.69Cr21.69Fe21.69Ni21.69C0.25 | 450 | 908 |
| Al16Co21Cr21Fe21Ni21 | 1207 | 1398 |
| Al13Co21Cr21Fe21Ni21Ti3 | 1098 | 1415 |
| Al13Co20.94Cr20.94Fe20.94Ni20.94Ti3C0.25 | 960 | 1344 |
| HfNbTaTiZr | 820 | 870 |
| Hf0.5Nb0.5Ta0.5Ti1.5Zr | 903 | 990 |
| FeMnNiCuCo |  | 478 |
| FeMnNiCuCoSn0.03 |  | 465 |
| FeMnNiCuCoSn0.05 |  | 475 |
| FeMnNiCuCoSn0.08 |  | 425 |
| FeMnNiCuCoSn0.1 |  | 470 |
| FeMnNiCuCoSn0.2 |  | 368 |
| FeCoCuNi |  | 480 |
| FeCoCuNiSn0.02 |  | 548 |
| FeCoCuNiSn0.04 |  | 594 |
| FeCoCuNiSn0.05 |  | 615 |
| FeCoCuNiSn0.07 |  | 632 |
| FeCoCuNiSn0.1 |  | 602 |
| FeCoCuNiSn0.2 |  | 261 |
| Al0.5CrCuFeNi2 | 363 | 500 |
| Fe23.5Co23.5Ni23.5Cr23.5Ti2Al4 | 190 | 503 |
| CoCrFeNi | 155 | 480 |
| CoCrFeMo0.1Ni | 198.8 | 479 |
| CoCrFeMo0.2Ni | 254.7 | 589.6 |
| CoCrFeMo0.3Ni | 305.3 | 709.7 |
| CoCrFeNiV | 311 | 311 |
| CoCrFeNiMnV | 90 | 90 |
| Zn20Ca20Sr20Yb20Li11Mg9 |  | 320 |
| Zr36Ti14Cu12.5Ni5Be20.5Fe12 |  | 1854 |
| SrCaYbMgZn |  | 456 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)85Al15 |  | 2350 |
| Zr34Ti15Cu10Ni11Be28Y2 |  | 2206 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)88Al12 |  | 2342 |
| Zr40Ti15Cu11Ni11Be21.5Y1Mg0.5 |  | 1884 |
| Zr41Ti14Cu12.5Ni5Be22.5Fe5 |  | 1968 |
| (Zr0.41Ti0.14Cu0.125Ni0.1Be0.225)98Y2 |  | 2146 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)90Al10 |  | 2362 |
| Zr41Ti14Cu12.5Ni2Be22.5Fe8 |  | 1876 |
| Zr41Ti14Cu12.5Ni8Be22.5Fe2 |  | 1956 |
| (Zr46.75Ti8.25Cu7.5Ni10Be27.5)92Al8 |  | 1734 |

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