Table 3 Initial parameters for the structural refinements of the ODS FeNiCrY2O3 cast alloy

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| --- | --- | --- |
| Crystallographic data | Phase-1 | Phase-2 |
| Formula | FeNiCr | Y2O3 |
| Space group | Fm-3m (I-225) | Ia-3 (I-206) |
| Lattice parameter: |  |  |
| a (Å) | 3.599724 | 10.599373 |
| b (Å) | 3.599724 | 10.599373 |
| c (Å) | 3.599724 | 10.599373 |
| α, β, γ (°) | 90, 90, 90 | 90, 90, 90 |
| Cell volume (Å3) | 46.645262 | 1,190.804663 |
| Atomic number in unit cell, Z | 4 | 144 |
| Atomic position, x, y, z | Fe1: 0.00, 0.50, 0.50 | Y1: 0.26, 0.06, 0.21Y2: 0.25, 0.00, 0.53O1: 0.16, 0.33, 0.13 |
| Uo parameter | 0.0011 | 0.19701 |
| Young modulus (GPa) (Moreau, et al., 2008) | 198 | 63.5 |