**Supplementary Information**

**On the effect of Re addition on microstructural evolution of a CoNi-based superalloy**

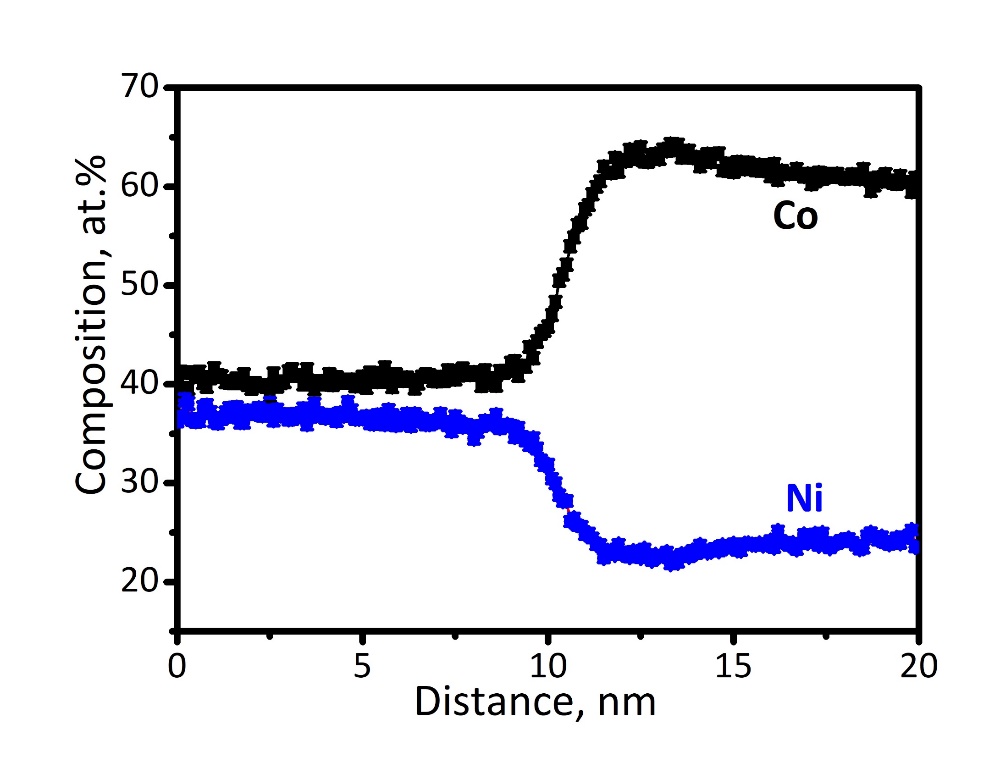
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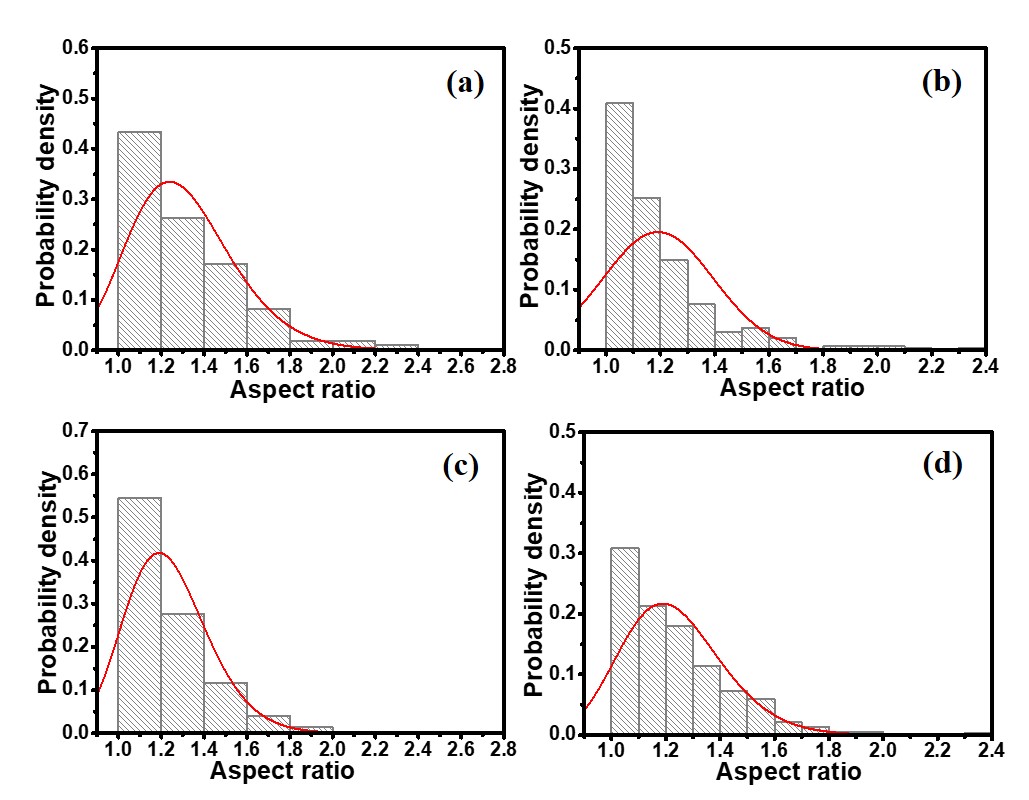
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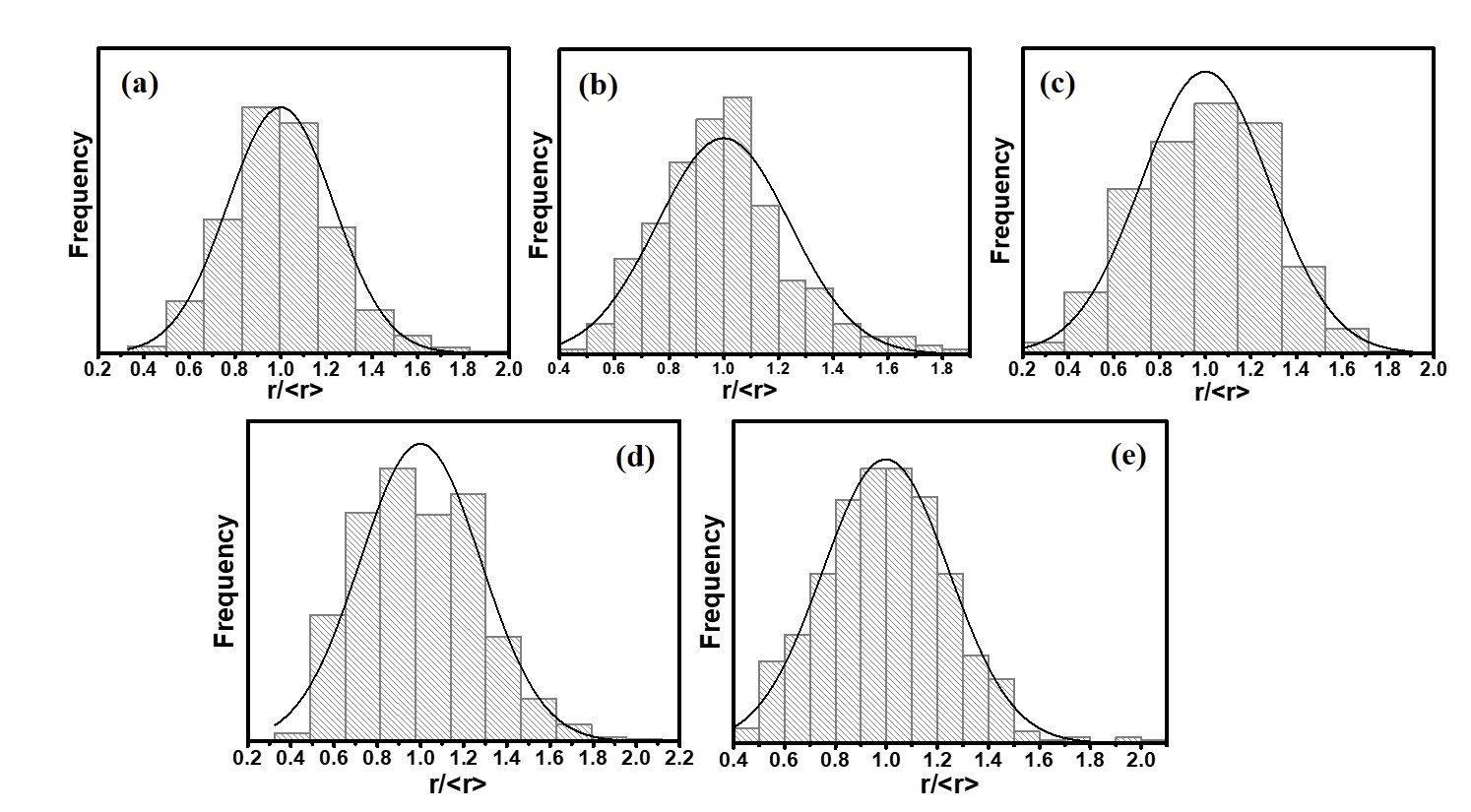
**Figure S1:** The proximity histogram plot showing composition profiles across the γ/γ′ interface for Co and Nifor the Co-30Ni-10Al-5Mo-2Nb-2Re (2Nb2Re) alloy subjected to aging at 900 °C for 50 hours.

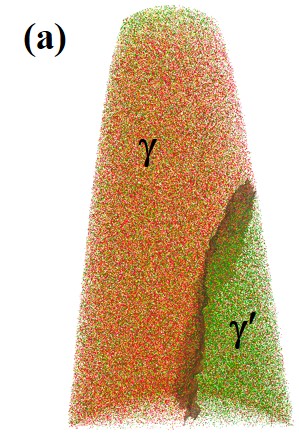


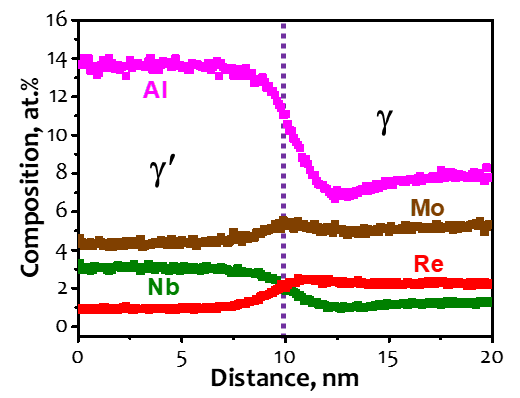
**γ**

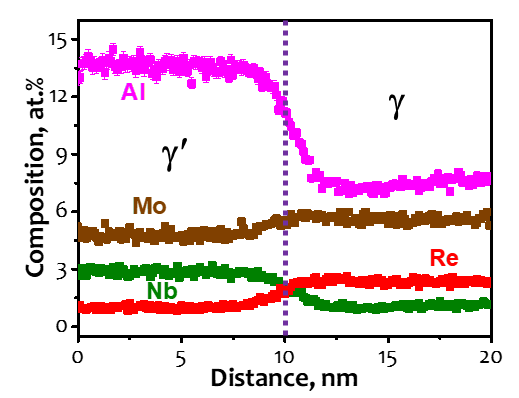
**γ′**

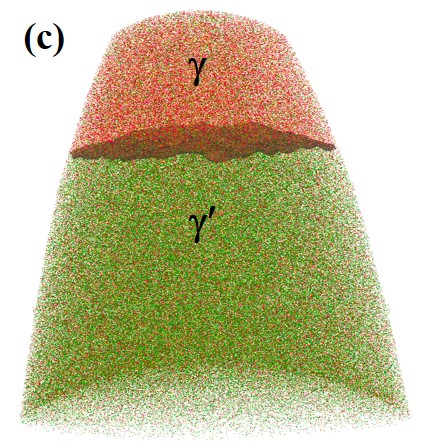
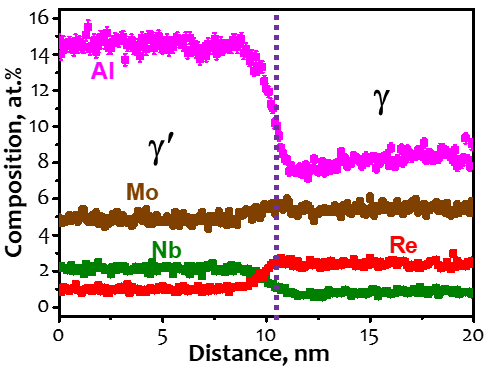
**Figure S2:** Changein the probability distribution function (PDF) ofaspect ratios() of the γ′ precipitates in the 2Nb2Re alloy subjected to aging at 900 °C: (a) 50 h, (b) 200h, (c) 500h and (d) 1000 h.

**Figure S3:** Changein the precipitate size distribution (PSD) as a function of the normalized precipitate size (r/<r>) of the γ′ precipitates in the 2Nb2Re alloy subjected to aging at 900 °C: (a) 50 h, (b) 200h, (c) 300h, (d) 500h and (e) 1000h. The normal distribution of precipitate size distribution is superimposed.

**Figure S4:** 3D-APT reconstruction for 2Nb2Re alloy aged at 900 C° for (a) 200 h (b) 500h and (c) 1000h, delineated by 46 at.% Co isoconcentration surface showing a partial γ′ precipitate and γ matrix and corresponding proximity histograms of the solute species Al, Mo, Nb and Re on both sides of the γ/γ′ interface. The zero position in the plot corresponds to the 46 at. % Co.







**Figure S5:** The composition profiles across the γ/γ′ interface for Re and Mo obtained for 2Nb2Re alloy after aging at 900 °C for (a) 200 hours, (b) 500 hours and (c) 1000 hours.

