

Supplementary information

Multimodality of critical strength for incipient plasticity in L1₂- precipitated (CoCrNi)₉₄Al₃Ti₃ medium-entropy alloy: coherent interface-facilitated dislocation nucleation

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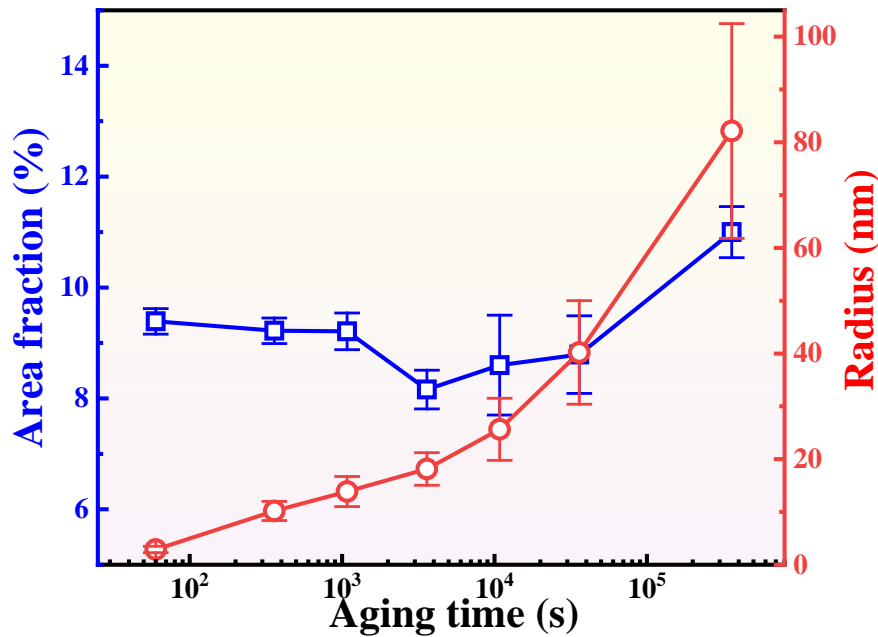


Fig. S1. Variations of the area fraction f and radius r of the L1₂ phase with aging time t in the (CoCrNi)₉₄Al₃Ti₃ alloy.

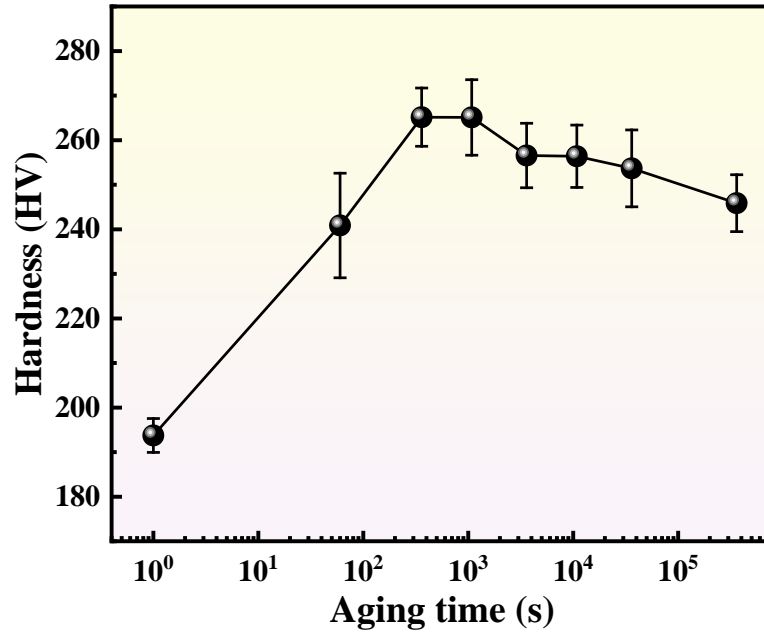


Fig. S2. Variations of Vickers hardness with aging time t in the $(\text{CoCrNi})_{94}\text{Al}_3\text{Ti}_3$ alloy.

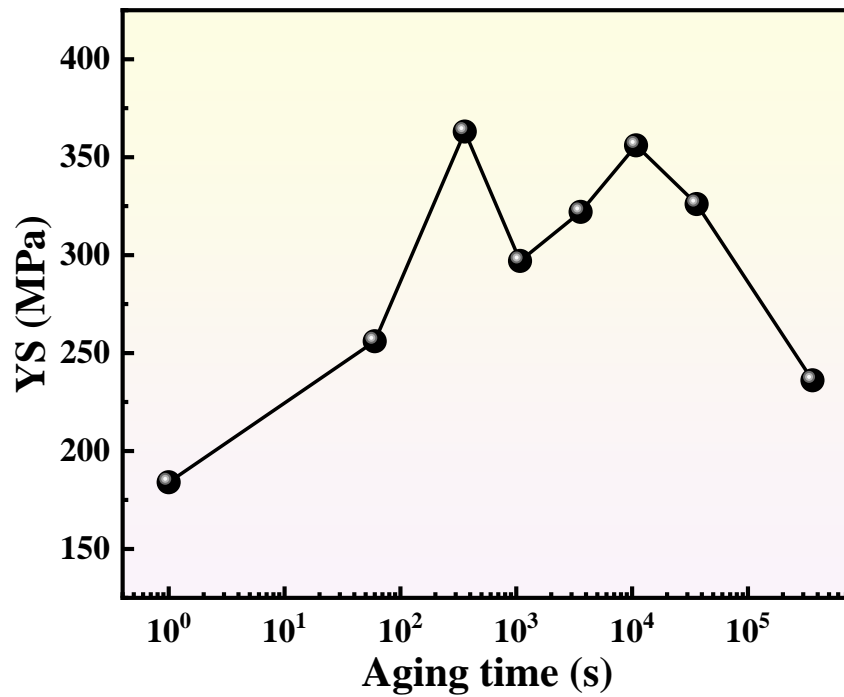


Fig. S3. Variations of yield strength (YS) with aging time t in the $(\text{CoCrNi})_{94}\text{Al}_3\text{Ti}_3$ alloy. The results were obtained using indentation plastometry.

Table S1. Reduced modulus E_r , elastic modulus E and shear modulus G of $(\text{CoCrNi})_{94}\text{Al}_3\text{Ti}_3$ alloy. The results were achieved assuming Poisson's ratio $\nu = 0.3$.

Aging time, t (mins)	E_r (GPa)	E (GPa)	G (GPa)
0	249	289	111
1	254	297	114
6	254	297	114
18	245	284	109
60	246	285	110
180	245	284	109
600	247	286	110
6000	244	282	108

Table S2. Chemical composition (at.%) of L_{12} phase in the $(\text{CoCrNi})_{94}\text{Al}_3\text{Ti}_3$ alloy aged for different times (Measured by TEM equipped with an EDS).

Aging time (mins)	Chemical composition (at.%)				
	Co	Cr	Ni	Al	Ti
6	24.33	16.47	48.06	3.55	7.59
60	20.79	10.50	52.84	4.65	11.24
600	16.58	3.71	58.61	5.78	15.32
6000	17.19	3.34	60.45	4.86	14.16