

Supporting Information

Improvement in mechanical as well as magnetic properties of a $(\text{FeCoNi})_{90}\text{Ti}_{10-x}\text{Al}_x$ complex concentrated alloy series by tuning the chemical order

X. Xu¹, K. P. Davidson², L. P. Tan², Stéphane Gorsse³, V. Chaudhary^{4*}, R. V.
Ramanujan^{2*}

1 School of Materials Science and Engineering, Nanjing University of Science and Technology, Nanjing 210094, China

2 School of Materials Science and Engineering, Nanyang Technological University, 639798, Singapore

3 Univ. Bordeaux, CNRS, Bordeaux INP, ICMCB, UMR 5026, F-33600 Pessac, France

4 Industrial and Materials Science, Chalmers University of Technology, SE-41296, Gothenburg, Sweden

*Emails: varunc@chalmers.se (VC), ramanujan@ntu.edu.sg (RVR)

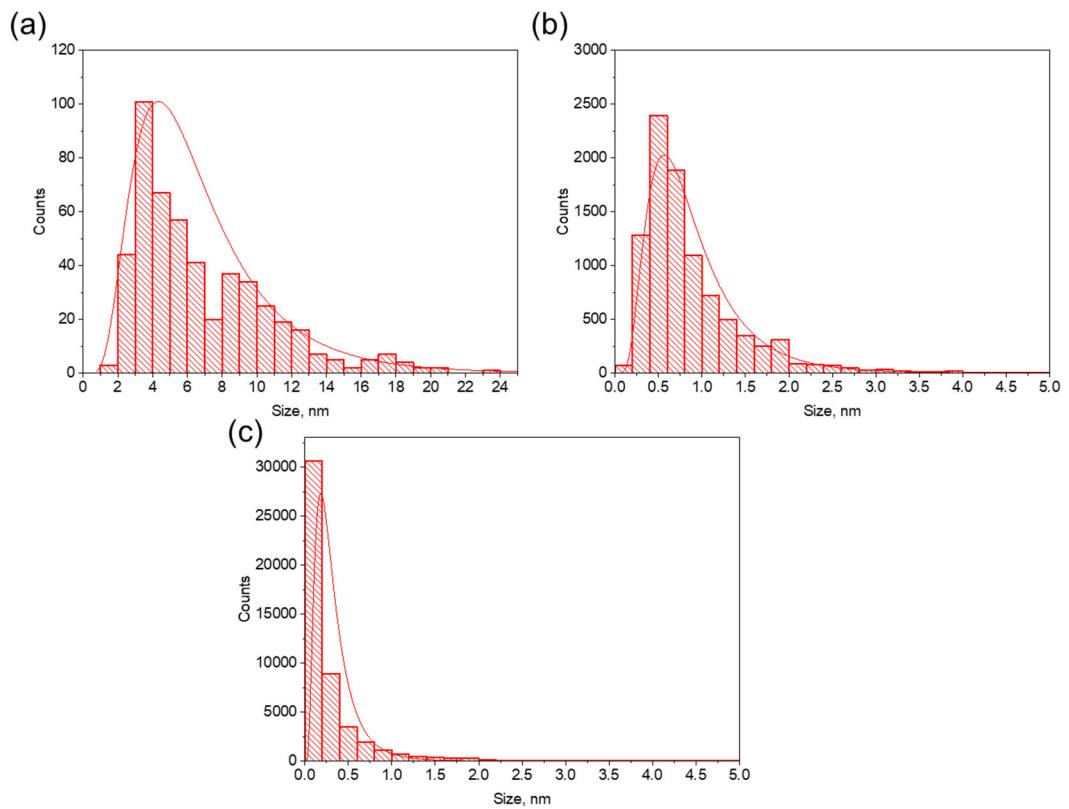


Fig. S1. Size distribution of nanoprecipitate in the $(\text{FeCoNi})_{90}\text{Ti}_{10-x}\text{Al}_x$ complex concentrated alloys
(a) Ti_{10} alloy, (b) Ti_7Al_3 alloy, (c) Ti_5Al_5 alloy.

Table S1 Mechanical and magnetic properties of the $(\text{FeCoNi})_{90}\text{Ti}_{10-x}\text{Al}_x$ alloys

Alloy	Yield strength (MPa)	UTS (MPa)	Elongation (%)	M_s (emu/g)	H_c (Oe)	Grain size (μm)	Average precipitate size (nm)	Volume fraction of nanoprecipitate (%)
Ti_{10}	1050	1253	7.5	115.2	17.9	199.7	~7	43.7
Ti_7Al_3	677	1006	29.3	117.9	8.1	183.6	~1	23.4
Ti_5Al_5	463	754	50.7	121.1	6.5	186.4	<1	9.8
Ti_3Al_7	325	659	53.2	125.7	6.3	162.9	-	-
Al_{10}	232	549	48.5	136.7	4.2	175.3	-	-