Supplementary Materials: A cost-effective approach to optimizing microstructure and magnetic properties in $Ce_{17}Fe_{78}B_6$ alloys

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Figure S1 shows the grain size distribution of $Ce_2Fe_{14}B$ and $CeFe_2$ phases in samples P2-15, P5-15 and P7-15. The average grain size of both phases decreased with an increase of chamber pressure.

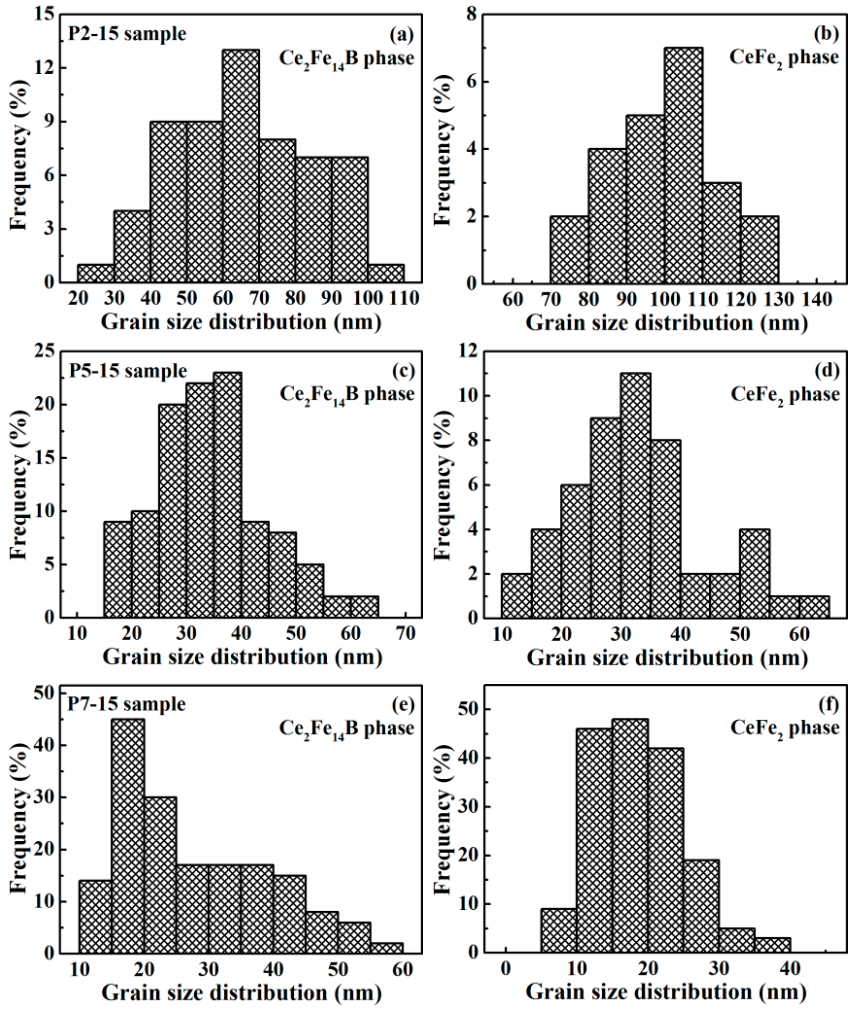

Figure S1. Grain size distribution of $Ce_2Fe_{14}B$ and $CeFe_2$ phases in as-spun $Ce_{17}Fe_{78}B_6$ ribbons: (a) (b) P2-15 sample, (c) (d) P5-15 sample, and (e) (f) P7-15 sample.

Table S1 The grain size (d) of $Ce_2Fe_{14}B$ and $CeFe_2$ phases of $Ce_{17}Fe_{78}B_6$ ribbons prepared at various chamber pressure ($P_{chamber}$) and the wheel speed (ν) of 15 $m \cdot s^{-1}$.

Samples	$P_{chamber}$ (MPa)	ν ($m \cdot s^{-1}$)	$d_{Ce2Fe14B}$ (nm)	d_{CeFe2} (nm)
P2-15	0.02	15	66 ± 18	100 ± 13
P5-15	0.05	15	34 ± 9	32 ± 10
P7-15	0.07	15	27 ± 11	19 ± 6