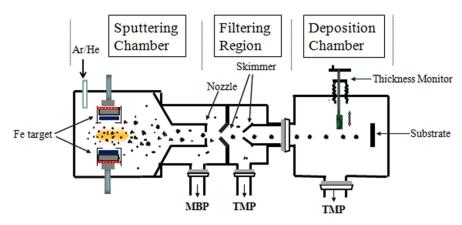
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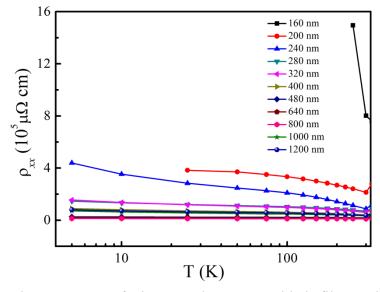
## Enhanced anomalous Hall effect in Fe nanocluster assembled thin films

Junbao Wang, a Wenbo Mi, b Laisen Wang, Oinfu Zhang, Dongliang Penga

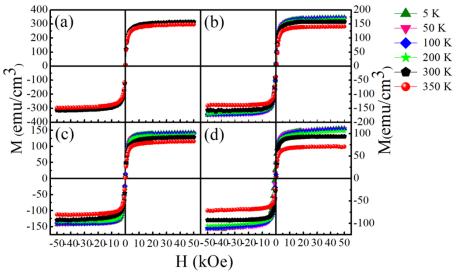
## Supporting Display items



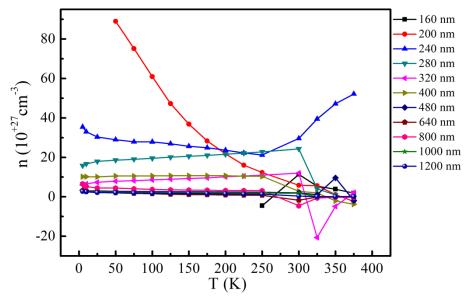
**Figure S1.** Schematic drawing of plasma-gas-condensation cluster deposition (PGCCD) system



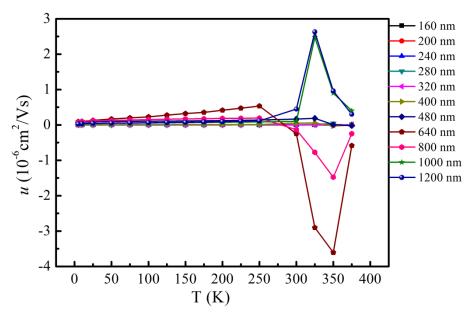
**Figure S2.**  $\rho_{xx}$ –logT curves of the Fe cluster-assembled films with different thicknesses.



**Figure** S3. *M-H* curves of the Fe cluster-assembled films with different thickness measured at different temperature: (a)  $t_a$ =160 nm, (b)  $t_a$ =400 nm, (c)  $t_a$ =640 nm, (d)  $t_a$ =1200 nm.



**Figure** S4. Carrier concentration (n) extracted from the ordinary Hall coefficient versus T at different thickness.



**Figure** S5. Carrier mobility (*u*) extracted from the ordinary Hall coefficient and the resistivity versus T at different thickness.