Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary information

Intrinsically dominated anomalous Hall effect in pulsed laser deposited epitaxial Co_2MnGe ferromagnetic full Heusler alloy thin films

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S1: Anomalous Hall resistivity and anomalous Hall coefficient

The temperature dependent anomalous Hall resistivity, ρ_{xy}^{AHE} is presented in **Fig. S1(a)**, where a monotonic increase with the temperature can be seen in the entire range of 5-300K. The anomalous Hall coefficient, R_S was calculated by using the relation, $\rho_{xy}^{AHE} = 4\pi R_S M$ and **Fig. S2(b**) presents the corresponding results at each of the sample temperatures.

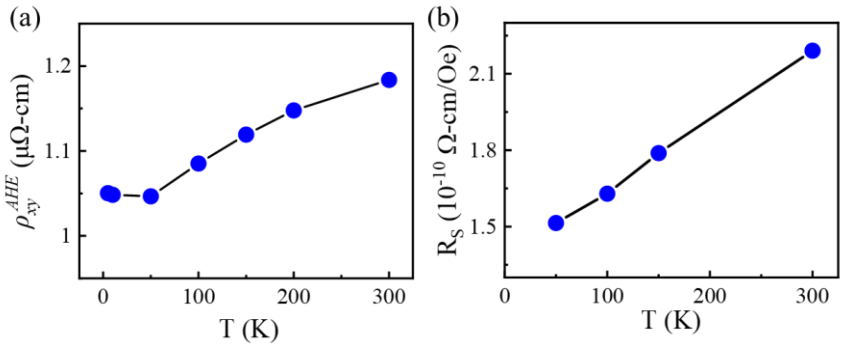
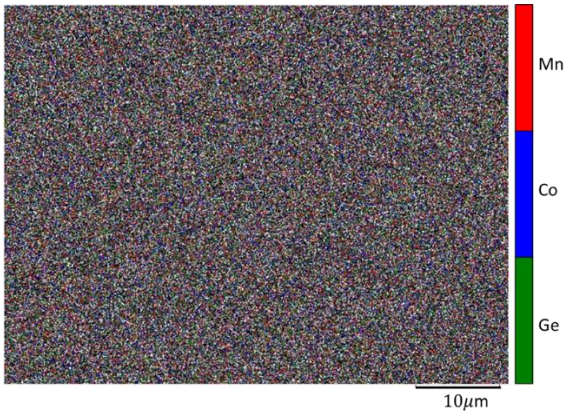


Figure S1: (a) Anomalous Hall resistivity, ρ_{xy}^{AHE} as a function of sample temperature. (b) Anomalous Hall coefficient, R_S at varying sample temperatures.

S2: Compositional analysis by electron probe microanalysis

Figure S2 shows the results from electron probe microanalysis (EPMA) for compositional analysis of the Co_2MnGe film. The summary of the elemental analysis in terms of atomic % is provided in the associated tabular form. The result clearly indicates uniform material stoichiometry in the film. The data presented in the figure is an average of 4 measurements on different points on the sample.



Element	Atomic (%)
Manganese	26.85
Cobalt	46.13
Germanium	27.02

Figure S2: Combined elemental mapping of Co, Mn and Ge from EPMA. The corresponding results for the atomic % of the elements present are provided in the tabular form.