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Mechanism for normal chirality at hexagonal interfaces[1] J.T. HARALDSEN, R.S. FISHMAN, Materials Science and Technology Division, Oak Ridge National Laboratory — We study the net chirality created by the Dzyaloshinkii-Moriya interaction (DMI) at the boundary between hexagonal layers of magnetic and non-magnetic materials. It is determined that another mechanism besides elastic torsion is required to understand the change in chirality observed in Dy/Y multilayers during field cooling. We show that due to the overlap between magnetic and non-magnetic atoms, interfacial steps may produce a DMI normal to the interface in magnetic heterostructures.

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