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**Exchange bias in a ferrimagnetic/antiferromagnetic system**[1] M.R. HOSSU, The University of Texas at Arlington, Arlington, TX 76019, S. DEMIRTAS, M.B. SALAMON, University of Texas at Dallas, Richardson, TX 75083, A.R. KOYMEN, The University of Texas at Arlington, Arlington, TX 76019 — The effect of antiferromagnetic FeMn on ferrimagnetic $(Co4nm/Gd4nm)_4$ multilayer was investigated by measuring the exchange bias and coercivity fields. It was observed that magnetic properties depend on whether the multilayers are Co or Gd terminated. The exchange bias increased at low temperatures from 50Oe to 350Oe when FeMn layers are on both surfaces of Co terminated [FeMn10nm/Co4nm/ $(Gd4nm/Co4nm)_4$/FeMn10nm] multilayer, compared to single FeMn layer. However for the Gd terminated [FeMn10nm/Gd4nm/ $(Co4nm/Gd4nm)_4$/FeMn10nm] multilayer the Gd/FeMn interface does not induce exchange bias. Moreover exchange spring behavior is observed around compensation temperature due to the uncompensated moment in FeMn layers.

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M.R. Hossu
The University of Texas at Arlington, Arlington, TX 76019

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