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Ultrafast spin precession dynamics in exchange-biased FeNi/FeMn/FeNi films JOO IN LEE, CHAN YONG HWANG, Korea Research Institute of Standards and Science — We investigated the spin precession dynamics in exchange-biased FeNi/FeMn/FeNi films by means of time-resolved magneto-optical Kerr effect (TR-MOKE). We observed the spin precession of all FeNi/FeMn/FeNi films in the TR-MOKE signals. The precession oscillations of the films changed rapidly as varying a thickness of antiferromagnet (FeMn). The period of the precession oscillations was not single and in the range of 10 to 20 ps. It is supposed that this is not only related to the exchange bias between ferromagnet and antiferromagnet but also double exchange biases in FeNi/FeMn/FeNi films.

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