

Abstract Submitted  
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**Mechanism of the two sign changes in the spin Seebeck effect of a compensated ferrimagnet** YUICHI OHNUMA, Tohoku University, HIROTO ADACHI, Japan Atomic Energy Agency, EIJI SAITOH, Tohoku University, SADAMICHI MAEKAWA, Japan Atomic Energy Agency — Spin Seebeck effect is the mechanism of thermal spin injection from a precessing ferromagnet into an attached paramagnetic metal [Uchida et al., *Nature* 455, 778 (2008)]. We have theoretically investigated the spin Seebeck effect in compensated ferrimagnets [Ohnuma et al., *Phys. Rev. B* 87, 014423 (2013)] and predicted that the sign of the spin Seebeck signal changes at the compensation temperature, which is recently confirmed by an experiment [Geprägs et al., arXiv:1405.4971 (2014)]. Interestingly, the experiment found another sign change at a lower temperature. Here we explain its origin by taking account of sublattice dependence of the exchange coupling at the ferrimagnet/paramagnet interface.

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