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Three-body recombination near a narrow Feshbach resonance in ^{6}Li LE LUO, JIAMING LI, JI LIU, LEONARDO DE MELO, Indiana University Purdue University Indianapolis,, BO GAO, University of Toledo — ^{6}Li narrow Feshbach resonance near a magnetic field of 543.3 Gauss allows studies of strongly interacting fermions with a large effective range [1]. Above the resonance threshold, three-body recombination rate L_3 is dramatically enhanced by the formation of metastable dimers [2], which subsequently decay via atom-dimer relaxation that can be described by a rate constant K_{ad}. By preparing atoms at various temperatures and sweep the magnetic field close to the resonance, we map out the dependence of L_3 on both the magnetic field and the temperature. From such L_3 we extract, what we believe, a first experimental measurement of the temperature dependence of $K_{ad}(T)$. We find that K_{ad} decreases with temperature in the ultracold regime, as predicted in [3], but with absolute values that differ from those of the universal quantum Langevin model [3], at least at this initial stage of analysis. [1] Tin-Lun Ho, Xiaoling Cui and Weiran Li, Phys. Rev. Lett., **108**, 250401, (2012) [2] E. L. Hazlett, Y. Zhang, R.W. Stites and K. M. O'Hara, Phys. Rev. Lett., **108**, 045304, (2012) [3] Bo Gao, Phys. Rev. Lett., **105**, 263203, (2010)

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