Abstract Submitted
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Spin dynamics in the triangular-lattice antiferromagnet Cs_2CuBr_4[1] S. ZVYAGIN, E. SCHULZE , A. PONOMARYOV, J. WOSNITZA, HLD-HZDR, Germany, M. OZEROV , D. KAMENSKYI, Radboud University Nijmegen, The Netherlands, J. KRZYSTEK, NHMFL-FSU, USA, D. YOSHIZAWA, M. HAGIWARA, Osaka University, Japan, R. HU, Brookhaven National Laboratory, USA and Stony Brook University, USA , H. RYU, C. PETROVIC , Brookhaven National Laboratory, USA , M. ZHITOMIRSKY , CEA-INAC/UJF, France — We present results of our recent electron spin resonance (ESR) studies of Cs_2CuBr_4, a spin-1/2 Heisenberg antiferromagnet with a distorted triangular-lattice structure, in magnetic fields up to 50 T. Studying the magnetic excitation spectrum in the magnetically saturated phase ($H_{sat} \sim 30$ T) allowed us to accurately determine exchange parameters of Cs_2CuBr_4. In addition, we report on the observation of a substantial zero-field gap, ~ 10 K, whose origin will be discussed. The peculiarities of the ESR spectrum above and below H_{sat} are described taking into account the effect of the Dzyaloshinskii-Moriya interaction.

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