

Abstract Submitted  
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**ESR Studies of the Quantum Spin-Ladder System BPCB** SERGEI ZVYAGIN<sup>1</sup>, Dresden High Magnetic Field Laboratory/FZD, E. ČIŽMÁR, Centre of Low Temperature Physics, P.J. Šafarik University, SK-041 54 Košice, Slovakia, M. OZEROV, J. WOSNITZA, Dresden High Magnetic Field Laboratory/FZD — Magnetic excitations in the spin-ladder material  $(\text{C}_5\text{H}_{12}\text{N})_2\text{CuBr}_4$  (known as BPCB) have been probed by means of electron spin resonance (ESR). A pronounced anisotropy ( $\sim 5\%$  of the rung interaction) was revealed. Our observations are in contrast to the isotropic spin-ladder model, previously employed for analysis of magnetic properties and the phase diagram of this compound. It is argued that such an anisotropy in BPCB is determined by the substantial spin-orbit coupling illuminating the importance of anisotropy effects in BPCB and other spin systems with the cooperative ground state. Details of the ESR magnetic excitation spectrum in BPCB are discussed.

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