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Low-temperature states in quasi-one-dimensional charge transfer salt $(TMTTF)_2SbF_6$ studied by ^{13}C NMR under hydrostatic high pressures FUMITATSU IWASE, Institute for Molecular Science, KOICHI SUGIURA, The Graduate University for Advanced Studies, KOU FURUKAWA, TOSHIKAZU NAKAMURA, Institute for Molecular Science — We report ^{13}C NMR study of a quasi-one-dimensional charge transfer salt, $(TMTTF)_2SbF_6$, under the application of the hydrostatic pressure. The antiferromagnetic phase transition at ambient pressure was confirmed by the line splitting and the divergent increase of the spin-lattice relaxation rate $1/T_1$. Under $\sim$5 kbar, $1/T_1$ deceases abruptly at low temperatures without the enhancement, indicating that the ground state is a spin-gapped phase. However, the decrease of the Knight shift expected for spin-Peierls phase transition has not been observed. We observed additional lines, which split symmetrically, at low temperatures under the pressure of $\sim$17 kbar. The possible reentrant antiferromagnetic phases are discussed.

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