

Abstract Submitted  
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**$^{87}\text{Rb}$  Nuclear Magnetic Resonance Measurements of  $\text{RbKSO}_4$  Single Crystal** MOOHEE LEE, KIHYEOK KANG, B. J. MEAN, SUNG HOON KIM, Konkuk University, Seoul 143-701, Korea, AE RAN LIM, Jeonju University, Jeonju 560-759, Korea —  $^{87}\text{Rb}$  Nuclear Magnetic Resonance (NMR) measurements have been performed on a single crystal of ferroelectric  $\text{RbKSO}_4$  at 4.8 and 8.0 T from room temperature down to 70 K. Two first-order phase transitions were reported to occur at 116 and 820 K. The crystal axes of  $\text{RbKSO}_4$  single crystal are well defined by XRD and NMR measurements. NMR spectrum, shift, linewidth, spin-lattice relaxation rate  $1/T_1$  and spin-spin relaxation rate  $1/T_2$  are measured as a function of temperature and rotation angle of the crystal axis to the magnetic field. The central peak of  $^{87}\text{Rb}$  NMR spectrum at room temperature shows a different behavior for the three crystal axes. The satellite peaks are extremely broad compared with the central peak. The spin-lattice relaxation rate  $1/T_1$  significantly decreases as temperature goes down. The spin-spin relaxation rate  $1/T_2$  is almost same and independent of the temperature variation.

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