¹⁴N NQR Study of Mixed Complexes (NaNO₂)_{1-x}(ANO₃)_x: (A=K, Na)*

Y. M. Park, S. K. Song, Y. M. Seo^a, J. K. Jung^a, and S. H. Choh^a

Department of Physics, Myong Ji University, Yongin Kyonggi-do, 449-728, Korea ^a Department of Physics, Korea University, Seoul, 136-701, Korea

Z. Naturforsch. **53a**, 620–624 (1998); received March 24, 1998

¹⁴N nuclear quadrupole resonance of the system $(NaNO_2)_{1-x}(ANO_3)_x$ with A=K and Na in the x-range $0 \le x < 0.5$ and the temperature range 77 K ≤ T < 360 K has been studied. The ¹⁴N NQR frequency of NaNO₂ and its line width do not change with x, the latter fact untrasting the results of other mixed systems such as Na_{1-x}Ag_xNO₂. This indicates that in $(NaNO_2)_{1-x}(ANO_3)_x$ highly mobile lattice defects exist. The dependence on x of the rate of change in the spin-lattice relaxation time T_1 near the transition temperature is discussed in terms of a correlated flipping motion of the NO₂ ion groups.

Reprint requests to Prof. S. K. Song. E-mail: sksong@wh.myongji.ac.kr