Magnetic Excitations in Strongly Correlated Electrons
J. Phys. Soc. Jpn. **69** (2000) Suppl. B. pp. 155–160

NMR Study of Charge Ordering and Magnetic Correlation in Vanadium Oxide Bronzes

Masayuki ITOH*, Nobuyuki AKIMOTO[1], Hiroyuki YAMADA[2], Masahiko ISOBE[2] and Yutaka UEDA[2]

Department of Physics, Faculty of Science, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522
[1]*Graduate School of Science and Technology, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522*
[2]*Institute for Solid State Physics, University of Tokyo, 7-22-1 Roppongi, Minato-ku, Tokyo 106-8666*

(Received December 20, 1999)

We have made ^{51}V NMR experiments to study the charge ordering and the magnetic correlation in vanadium oxide bronzes β-AV_6O_{15} (A= Na, Ag and Ca). We observed a drastic change in the ^{51}V NMR spectrum accompanied by the charge ordering. Thus we can confirm from the microscopic point of view that the charge ordering commonly takes place in β-AV_6O_{15} (A= Na, Ag and Ca). A charge ordering structure is also discussed with a magnetic structure.

KEYWORDS: charge ordering, NMR, one-dimensional metal, NaV_6O_{15}, AgV_6O_{15}, CaV_6O_{15}