

Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

^{11}B Nuclear Magnetic Resonance Study of Ferromagnetic CaB_6
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Korea — We have performed ^{11}B nuclear magnetic resonance(NMR) measurements
to microscopically investigate an electronic structure of the ferromagnetic state in
 CaB_6 single crystals. Although the crystal structure of CaB_6 is cubic and three NMR
lines are usually expected for the nuclear spin $3/2$ of ^{11}B , a larger number of NMR
resonance peaks have been observed. The frequency and intensity of those peaks
distinctively changes depending on the angle between crystalline axis and magnetic
field. Analyzing this behavior, we find that the electric field gradient(EFG) tensor at
the boron has its principal axis perpendicular to the six cubic faces with a quadrupole
resonance frequency $\nu_Q \approx 600$ kHz. Even though the magnetization data highlight
the ferromagnetic hysteresis, ^{11}B NMR linewidth data show no clear microscopic
evidence of the ferromagnetic state in several different compositions of CaB_6 single
crystals.

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Date submitted: 01 Dec 2004

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