

²⁷Al- and ⁹⁵Mo-NMR Study on Noncentrosymmetric Superconductor Mo₃Al₂C

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Superconductivity on a crystal without inversion center is of great interest as the absence of parity can induce a novel superconducting (SC) pairing state. The first discovered noncentrosymmetric superconductor (NCS) CePt₃Si undergoes a magnetic transition at $T_N \simeq 2.2$ K before the SC transition at $T_c \simeq 0.75$ K. The strong electron-electron interactions complicate the electronic states where superconductivity appears.¹ A weakly-correlated NCS, Li₂Pt₃B then has been investigated to extract a purely crystal-structure involved effect on superconducting pairs. In another weakly-correlated NCS Mo₃Al₂C with $T_c \simeq 9$ K, a power law temperature dependence of specific heat was clearly observed in the SC state.^{2,3} Rather high T_c of Mo₃Al₂C allows us to study the SC state using various experimental techniques. We have performed ²⁷Al- and ⁹⁵Mo-NMR experiments on Mo₃Al₂C to explore both the normal and SC state. Exotic SC properties of this compound will be discussed on the basis of the results at low temperatures.

¹E. Bauer, *et al.* Phys. Rev. Lett. **92**, 027003 (2004).

²E. Bauer, *et al.*, Phys. Rev. B **82**, 064511 (2010)

³A. B. Karki, *et al.* Phys. Rev. B **82**, 064512 (2010)