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Low Temperature Phase Diagram in $\gamma - p$-NPNN KOICHI KAJIYOSHI[1], TAKASHI KAMBE, KOKICHI OSHIMA, Graduate School of Natural Science and Tech., DEP. OF PHYSICS, FAC. OF SCIENCE, OKAYAMA UNIVERSITY TEAM — We performed the magnetic torque measurements of γ-phase of *para*-Nitrophenyl Nitronyl Nitroxide (being p-NPNN), which is considered to be as a quasi-one-dimensional ferromagnet, in the vicinity of T_N (=0.65K) using a piezo-resistive micro-cantilever. Typical sample dimension is about $0.25 \times 0.10 \times 0.10\text{mm}^3$. At 0.4K, a spin-flop transition (H_{SF}) and an antiferromagnetic-paramagnetic transition (H_C) are clearly observed in the magnetic field of about 470 Gauss and 2100 Gauss, respectively. The spin-easy axis is almost parallel to the direction to phenyl ring from the ONCNO fragments. $H - T$ phase diagram is determined properly. These results are consistent with our recent low frequency ($\sim$ 300 MHz) and low-temperature (0.4 K) ESR. We will discuss the $H - T$ phase diagram of $\gamma - p$-NPNN in comparison with the one- dimensional Heisenberg ferromagnetic model.

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