

Abstract Submitted
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Development of polarized HD target for LEPS experiment(2) TAKESHI OHTA, MAMORU FUJIWARA, KOUJI FUKUDA, HIDEKI KOHRI, TOMOAKI HOTTA, TAKAYUKI KUNIMATSU, CHIHARU MORISAKI, KEISUKE UEDA, MICHIO URAKI, MASAHIKO UTSURO, MASARU YOSOI, RCNP, Osaka University, SU-YIN WANG, Institute of Physics, Academia Sinica, Taiwan, MASA TANAKA, Kobe Tokiwa University, Japan, GERARD ROUILLE, SYLVAIN BOUCHIGNY, JEAN-PIERRE DIDELEZ, IN2P3, Institute de Physique, France, HD-LEPS TEAM — We develop the polarized HD target in order to perform the “complete” experiments with a polarized photon beam and a polarized target. The first goal of the HD target project is a search for a strange quark content in the nucleon via the ϕ meson photoproduction reaction. This experiment is scheduled at the LEPS facility of SPring-8 in 2010. At RCNP, we have already succeeded in producing the polarized HD target and measuring the polarization and relaxation time by using NMR method. The measured relaxation time was not long enough. Since the relaxation time of the HD target depends on its purity, we are developing the purification systems for the HD gas. The next step is transport system for the HD target to SPring-8 by keeping the polarization. We are developing transportation cryostats so as not a sizable depolarization of the HD target. Design and development of the polarized HD target will be reported.

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