

Abstract Submitted
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Diffractive ϕ photo-production off the Deuteron Near Threshold in LEPS/SPring-8 MANABU MIYABE, Department of Physics, Kyoto University, KEITO HORIE, Research Center for Nuclear Physics, SUGURU SHIMIZU, Department of Physics, Graduate School of Science Osaka University, WEN CHEN CHANG, Institute of Physics Academia Sinica, DEPARTMENT OF PHYSICS, KYOTO UNIVERSITY TEAM, RESEARCH CENTER FOR NUCLEAR PHYSICS TEAM, DEPARTMENT OF PHYSICS, GRADUATE SCHOOL OF SCIENCE OSAKA UNIVERSITY TEAM, INSTITUTE OF PHYSICS ACADEMIA SINICA TEAM, SPRING-8/LEPS COLLABORATION — Measurement of ϕ photo-production off the deuteron at forward angles investigate a unique way of studying the reaction mechanisms. Close to production threshold, meson-exchange processes such as exchange of π or η shows up, other than the dominating channel of Pomeron exchange in the high energy region. The isovector π -meson exchange can be eliminated in coherent photoproduction from the deuteron as an isoscalar target. In the SPring-8/LEPS experiment, we have measured photo-production of ϕ from liquid deuteron target with a photon energy from production threshold to 2.4 GeV. Linearly polarized photon beam was generated by backward Compton scattering. In this talk, we will report preliminary results of differential cross section and decay asymmetry for both coherent and incoherent production.

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