

## EXPERIMENT OF THE $(n,\gamma)$ REACTION FOR DISCRETE SYMMETRY

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The weak interaction contained in the nuclear interaction can be observed as the P-violating asymmetry of the neutron capture cross section. The discovery of large enhancement of the P-violating asymmetry in p-wave compound resonances led to a systematic survey in 1990's. The largest enhancement is almost  $10^6$  compared with the nucleon-nucleon P-violating effect and the enhancement is explained as the interference between incident s- and p-wave amplitude. The mechanism of the P-violation has been proposed theoretically to be applicable to enhance the experimental sensitivity to breaking of the symmetry under the time-reversal operation. High counting rate detector and polarized devices such as polarized beam and targets are needed for this study. We report the current status of this preliminary experiment and device development.