

Abstract Submitted  
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**Measurement of deep hole states in  $^{39}\text{K}$  by  $^{40}\text{Ca}(\overrightarrow{p}, 2p)$  reaction at 392 MeV** YUSUKE YASUDA, HARUTAKA SAKAGUCHI, KICHIJI HATANAKA, MASARU YOSOI, JUZO ZENIHIRO, RCNP, Osaka University, TETSUO NORO, TOMOTSUGU WAKASA, KUNIHIRO FUJITA, Kyushu University, TAKAHIRO KAWABATA, Kyoto University, YASUHIRO SAKEMI, MASATOSHI ITOH, HIDETOMO YOSHIDA, TAKASHI ISHIDA, Tohoku University, HIROYUKI TAKEDA, RIKEN, MAKOTO UCHIDA, Tokyo Inst. of Tech., SATORU TERASHIMA, GSI, YOHEI SHIMIZU, CNS, University of Tokyo, YUJI TAMESHIGE, NIRS — The spectroscopic factor and the width of  $1s_{1/2}$  state in  $^{40}\text{Ca}$  have been deduced from  $^{40}\text{Ca}(p, 2p)$  reaction experiment. In the experiment the cross sections and analyzing powers of the  $^{40}\text{Ca}(\overrightarrow{p}, 2p)$  reaction at 392 MeV have been measured. The strength distributions of the single-hole states in  $^{39}\text{K}$  were successfully obtained by multipole decomposition analysis on the basis of the angular momentum  $L$ . The central value and the width (FWHM) of the obtained strength distribution of  $1s_{1/2}$  are 52 MeV and 22 MeV. The obtained spectroscopic factor of  $1s_{1/2}$  state is about 60% of the  $2J+1$ . This value will be compared with the theoretical calculations that include short-range correlations and tensor correlations.

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