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Nuclear g-factor measurement for the low-lying state in ^{109}Rh using On-line TDPAC technique and RF-IGISOL technique YUJI MIYASHITA, HIROYUKI OUCHI, SAYAKA IZUMI, AYAKO SASAKI, NOZOMI SATO, MIKI TATEOKA, SAYO HOSHINO, TETSUYA NAGANO, WATARU YAMASHITA, Department of Physics, Tohoku University, Sendai, Japan, AKIYOSHI YAMAZAKI, KENZI SHIMADA, TAKASHI ISHIDA, TAKASHI WAKUI, TSUTOMU SHINOZUKA, Cyclotron and Radioisotope Center, Tohoku University, Sendai, Japan, MINORU TANIGAKI, Research Reactor Institute, Kyoto University, Osaka, Japan — To extend the studies on neutron-rich nuclei, we have developed an RF-IGISOL technique, which is combination of the gas catcher technique and the electrical field guiding technique with a large volume gas cell. As the first step to such approach, we are planning and trying the systematic measurement of g-factor in the neutron rich nuclei extracted as an radioactive beam from our RF-IGISOL at Tohoku University. The g-factor measurement for the low-lying state of ^{109}Rh ($E_x = 225.98$ keV, $T_{1/2} = 1.66$ μs) is the first on-line experiment with our RF-IGISOL system. The g-factor for this state has been determined to be $g = 0.78^{+0.17}_{-0.03} \mu_N$ by the on-line TDPAC method. In this contribution, the details of experimental results will be reported.

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