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Electromagnetic Moments of ^{28}P KENSAKU MATSUTA, M. MIHARA, D. NISHIMURA, M. FUKUDA, R. MATSUMIYA, Dpt. of Physics, Osaka Univ., T. NAGATOMO, ICU, S. MOMOTA, K. OHI, Kochi Univ. of Tech., T. IZUMIKAWA, T. OHTSUBO, Y. NAMIKI, M. NAGASHIMA, Niigata Univ., D.M. ZHOU, Y.N. ZHENG, D.Q. YUAN, Y. ZUO, P. FAN, S.Y. ZHU, CIAE, A. KITAGAWA, M. KANAZAWA, M. TORIKOCHI, S. SATO, NIRS, T. SUMIKAMA, Tokyo Univ. of Tech. — In order to study nuclear structure of proton-rich nucleus ^{28}P (I^{π}=3^{+}, $T_{1/2}$ = 270.3 ms), electro magnetic moments of this nucleus have been measured. Obtained precise value of magnetic moment is $|\mu(^{28}\mathrm{P})|$ = 0.3115(34) μ_N. The experimental magnetic moment is much quenched from the Schmidt value +0.88, but is well reproduced by the shell model value +0.306. To measure quadrupole moment, β-NMR has been observed on ^{28}P implanted in α-Al_2O_3. As a preliminary result, possible resonance was found around quadrupole frequency $|\nu_Q|$ = 200 kHz, which corresponds to the quadrupole moment of about 120 mb, which is consistent with the shell model value.

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