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A windowless He-gas target for astrophysics experiments SAYAKA MATSUDA, KENSHI SAGARA, TAKASHI TERANISHI, KUNIHIRO FUJITA, RIE IWABUCHI, MASAHIKO TANIGUCHI, TAKASHI GOTOH, KEIZYU NAKANO, NOZOMI OBA, HIROYUKI YAMAGUCHI, Department of Physics, Kyushu University — In He-burning in stars ^{4}He(^{12}C,^{16}O)γ reaction plays an important role, however, the reaction cross section at stellar energy has not been measured yet. This experiment is very difficult. To measure the ^{4}He(^{12}C,^{16}O)γ cross section, a thick (24Torr x 3cm) windowless ^{4}He gas target has been developed at Kyushu University. Structure of the windowless gas target and measurement of the target thickness using a proton beam will be reported.

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