Angular distribution of the ^{4}He(^{3}He,γ)^{7}Be reaction[1] ALIESHA AN-
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HENRY WELLER, Duke Unversity — The ^{4}He(^{3}He,γ)^{7}Be is key reaction in high
energy solar neutrino production. A measurement of the gamma-ray angular distri-
bution provides insight into the reaction mechanism and allows better extrapolation
of the cross section to low energies. A gas cell experiment has been designed and built
to study the angular distribution. This work reports on the design and construction
of the gas cell and the gas handling system as well as energy loss measurements in the
cell. The cell was designed to reduce the background due to beam interaction with
the entrance and exit foils. The detector geometry was studied and calculated to
optimize response and efficiency. Results of preliminary gamma ray measurements
with a ^{3}He beam will be presented.

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Date submitted: 30 Jun 2005   Electronic form version 1.4