

Simulation status

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for the Belle2 Collaboration

Weekly Belle2 BEAST II Meeting - Monday 3rd, June 2013

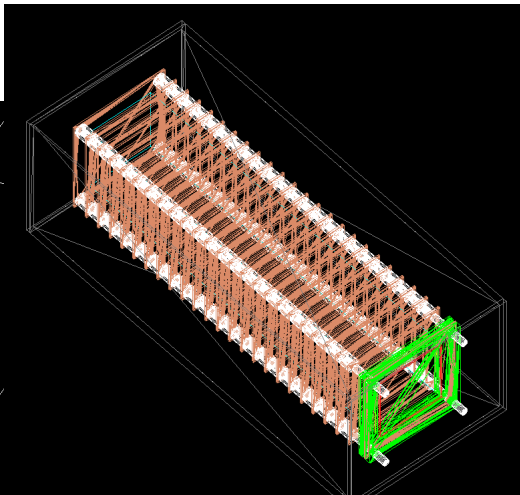
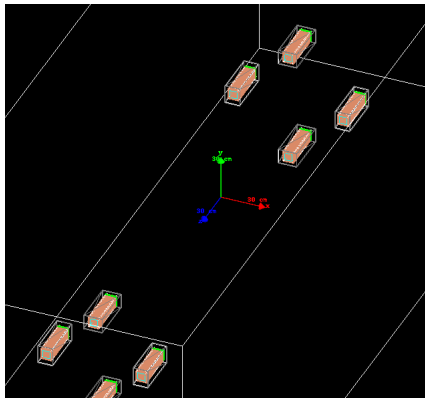
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1 Update geometry

2 Rates

Update geometry

- 8 TPC chambers $10.12 \times 12.7 \times 30 \text{ cm}^3$ (surface $4 \times 5 \text{ inch}^2$)
- active volume $5 \times 5 \times 25 \text{ cm}^3$
- surface from 0.72×0.8 to $4 \times 3.36 \text{ cm}^2$ can be instrumented (1 FE-I3 to 4 FE-I4)
- $E \parallel B$ (0.3 to 0.9 kV/cm [depending of the chip and gas] $\parallel 1.5 \text{ T}$)

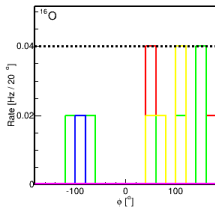
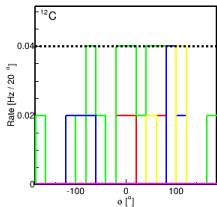
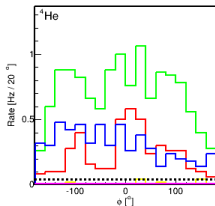
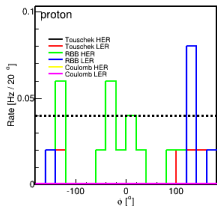


Angular rate expected of recoils measured at phase 2

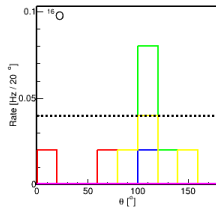
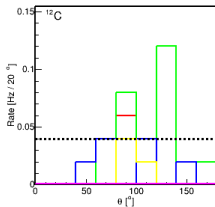
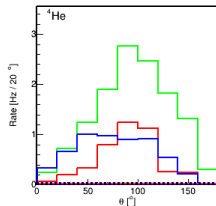
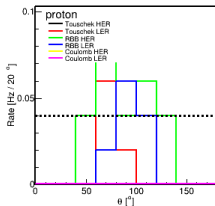
gas mixture He:CO₂:70:30 at 1 atm

- 4 chips, directional and edge cuts
- rates for different recoils
- compared to irreducible internal detector background (dashed black line)

► azimuthal rates



► polar rates

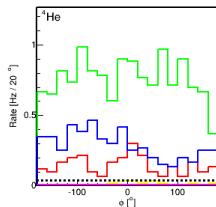
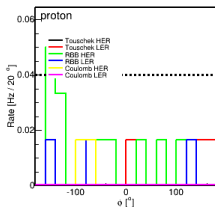


Angular rate expected of recoils measured at phase 2

gas mixture He:CO₂:70:30 at 1 atm with previous geometry

- 4 chips, directional and edge cuts
- rates for different recoils
- compared to irreducible internal detector background (dashed black line)

► azimuthal rates



► polar rates

