CALORIMETRO

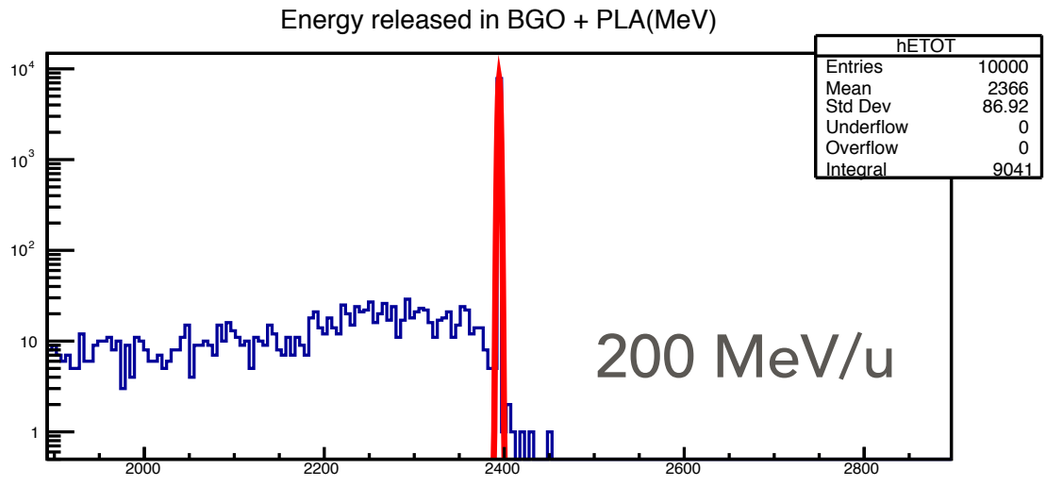
CRISTALLO MONOBLOCCO

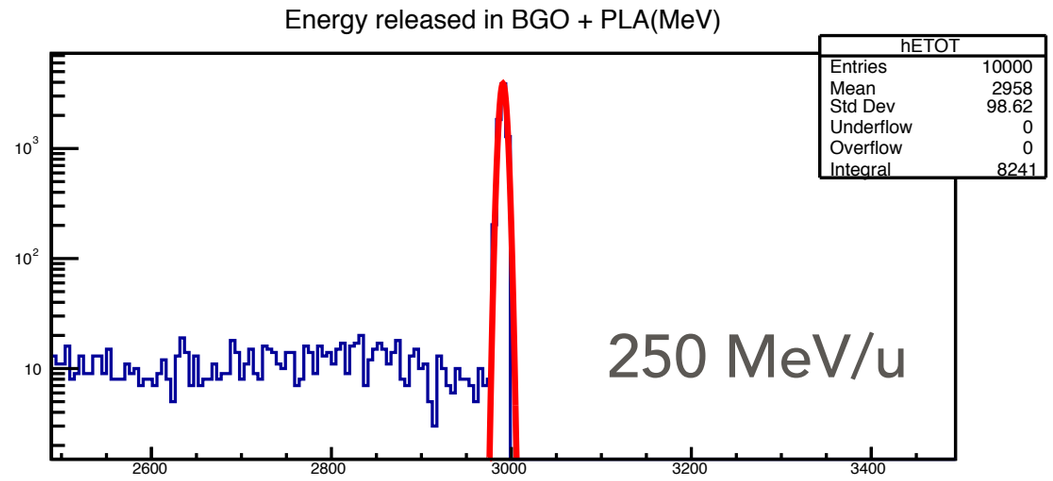
SETUP (1): single crystal cylinder r=22 cm x 11 cm
SETUP (2): single crystal r=22 cm x 14 cm
SETUP (3): single crystal r=22 cm x 22 cm
SETUP (4): single plastic scintillator r=22 cm x 22 cm

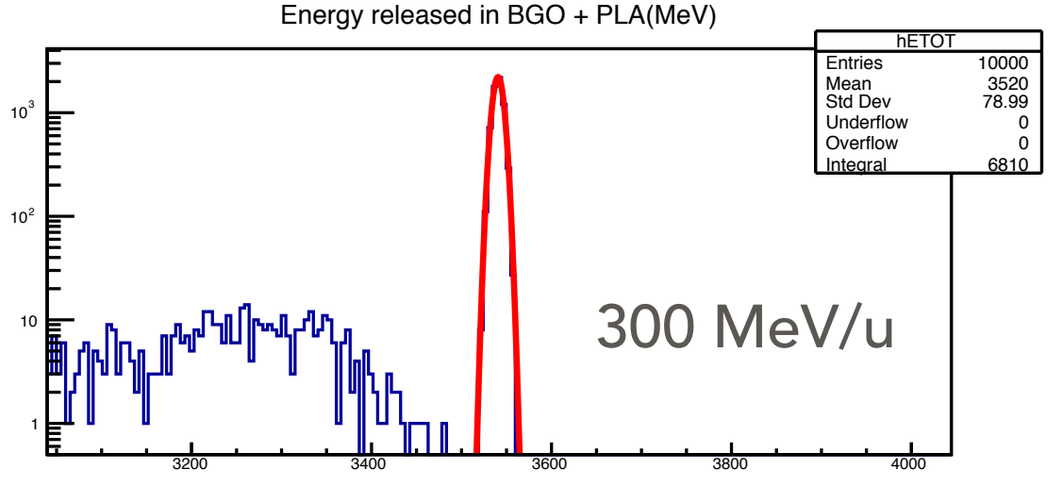
Carbon ion energy: 200, 250, 300 MeV/u

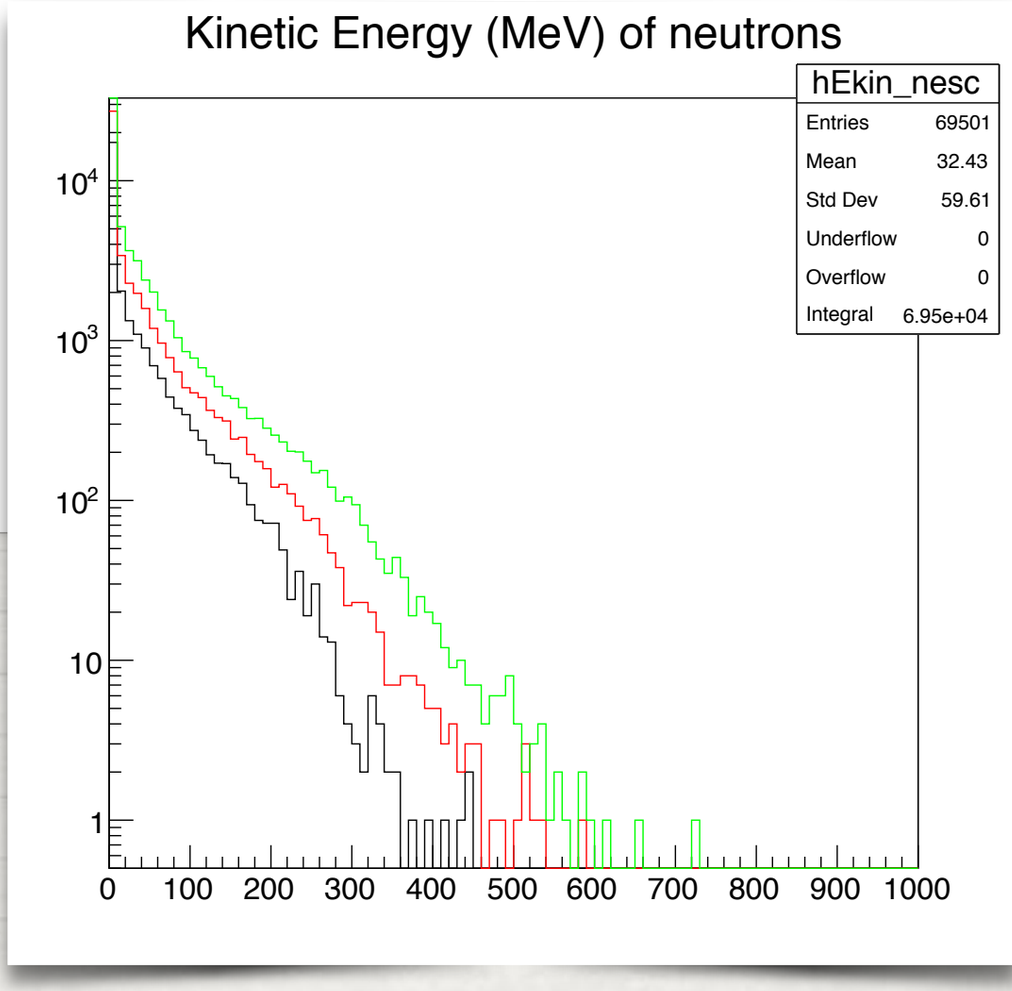
CALORIMETRO

CRISTALLO MONOBLOCCO 7 CM





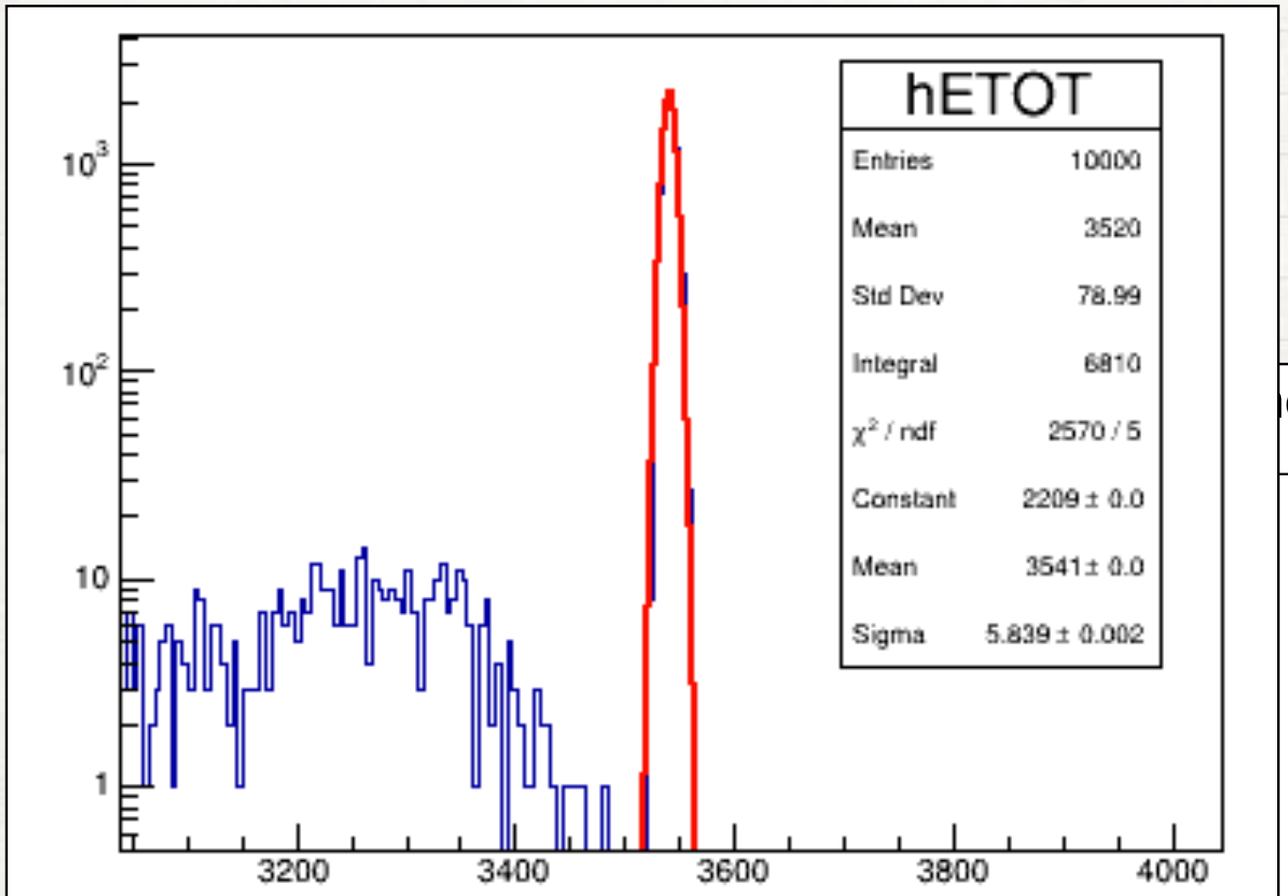




CALORIMETRO

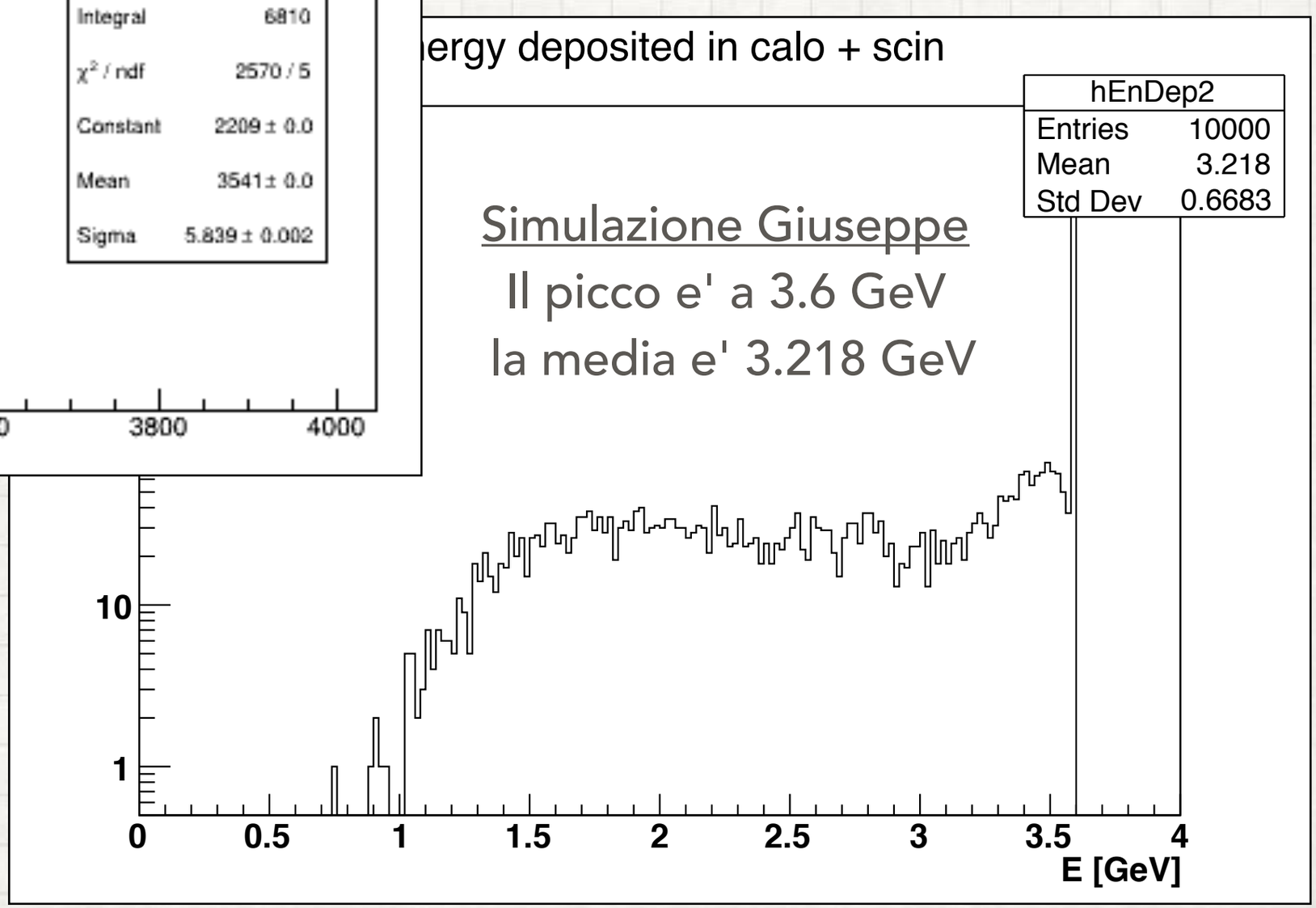
CRISTALLO MONOBLOCCO 7 CM

300 MeV/u



Il picco e' < 3.6 GeV !!
la media e' 3.5 GeV

ergy deposited in calo + scin



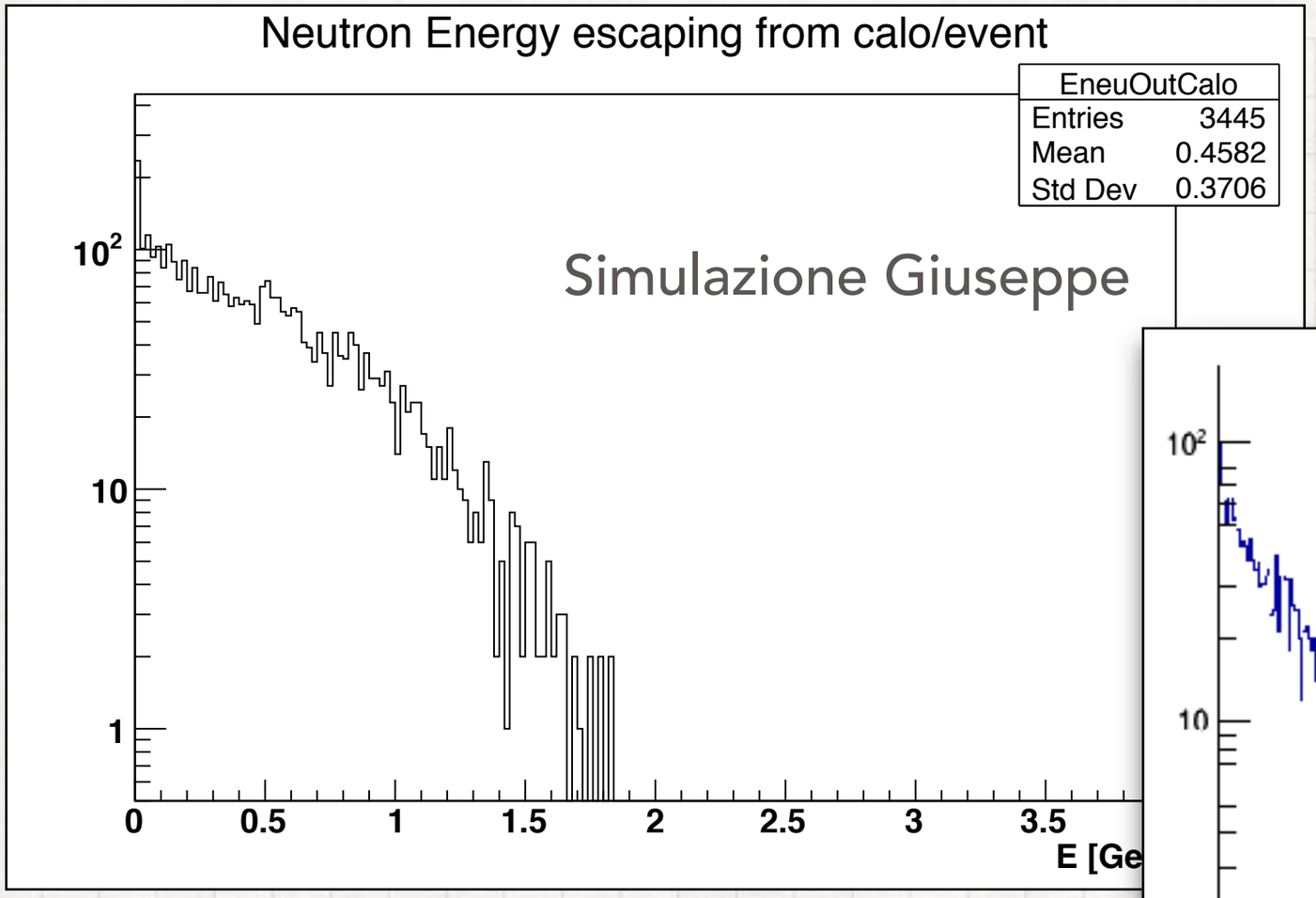
Simulazione Giuseppe

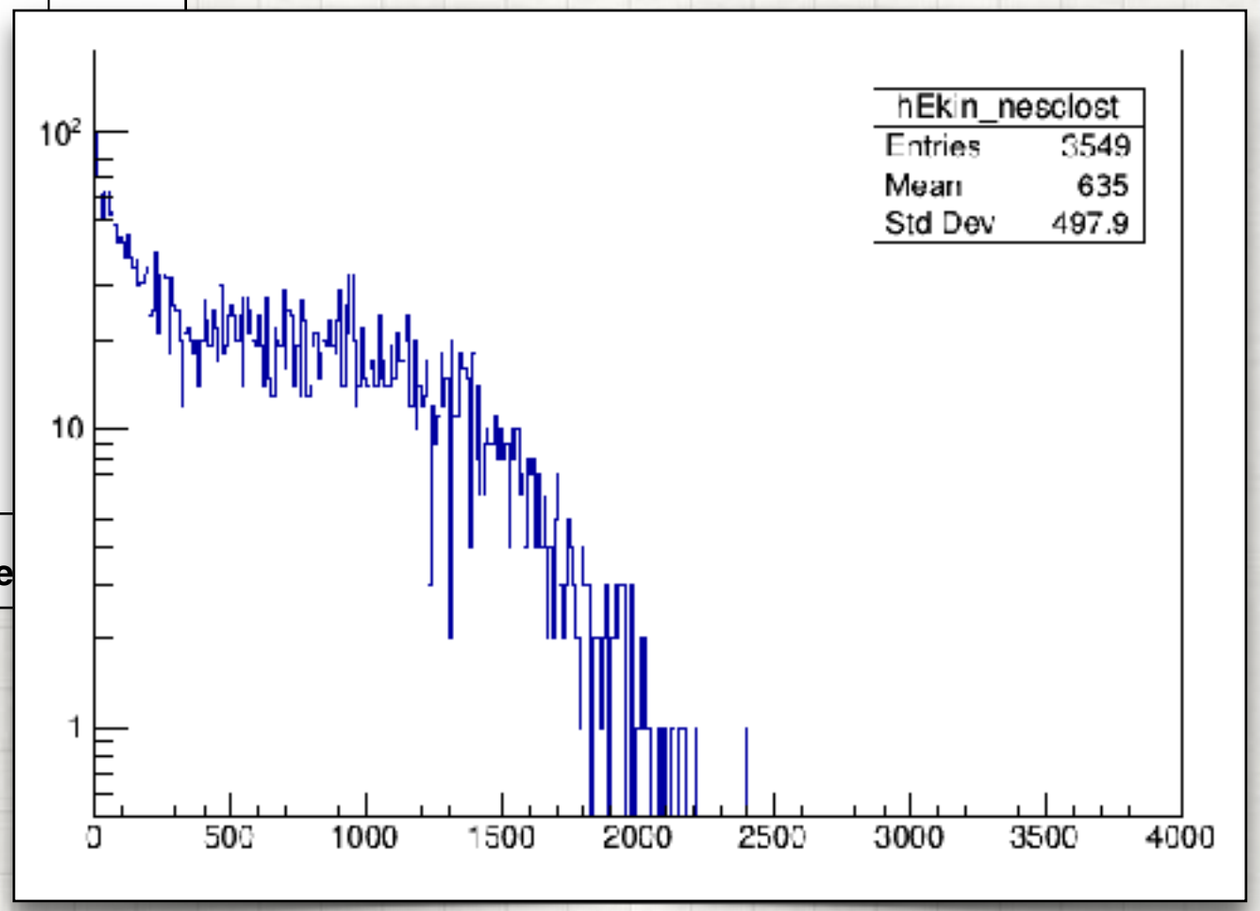
Il picco e' a 3.6 GeV
la media e' 3.218 GeV

CALORIMETRO

CRISTALLO MONOBLOCCO 7 CM

300 MeV/u

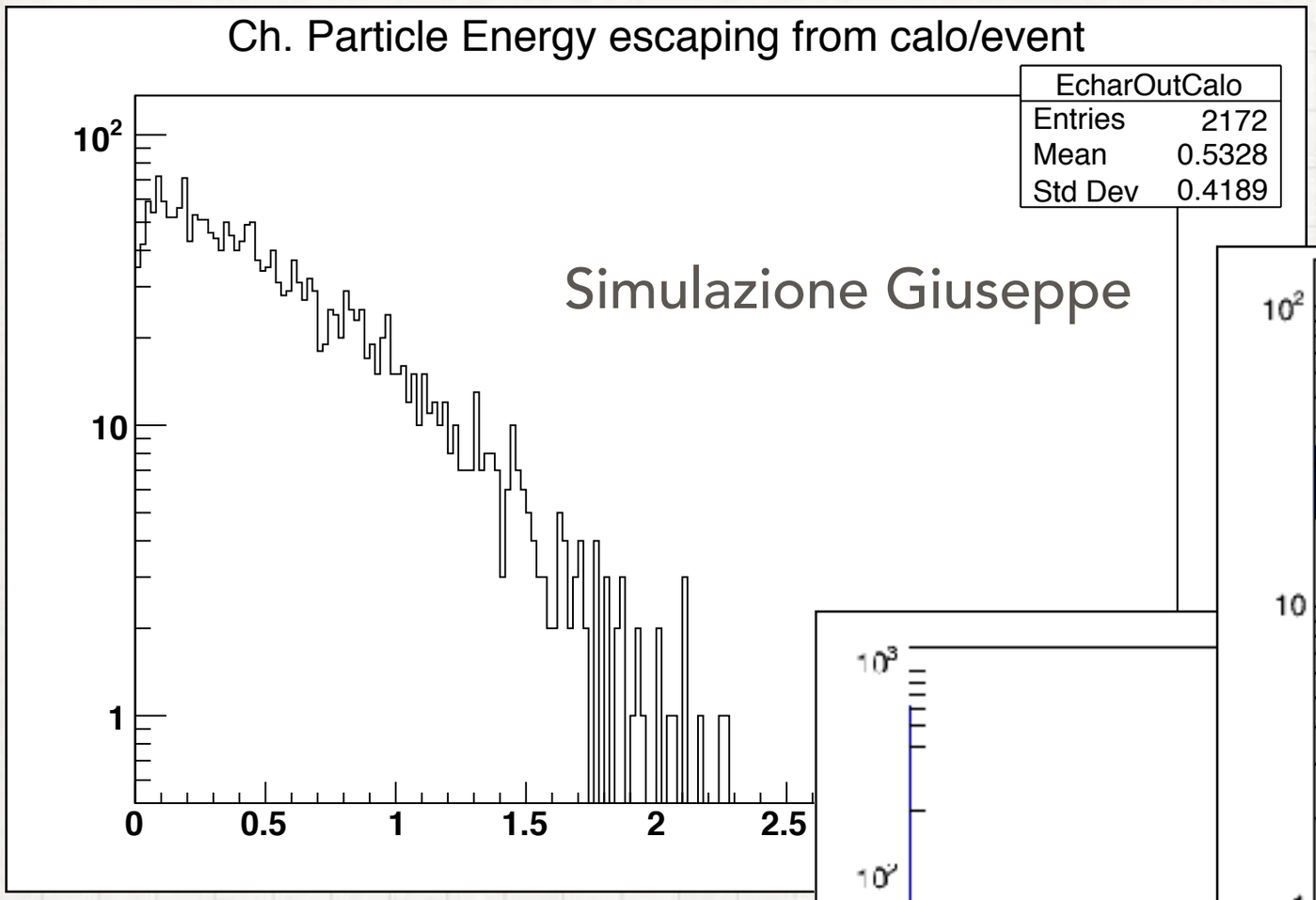


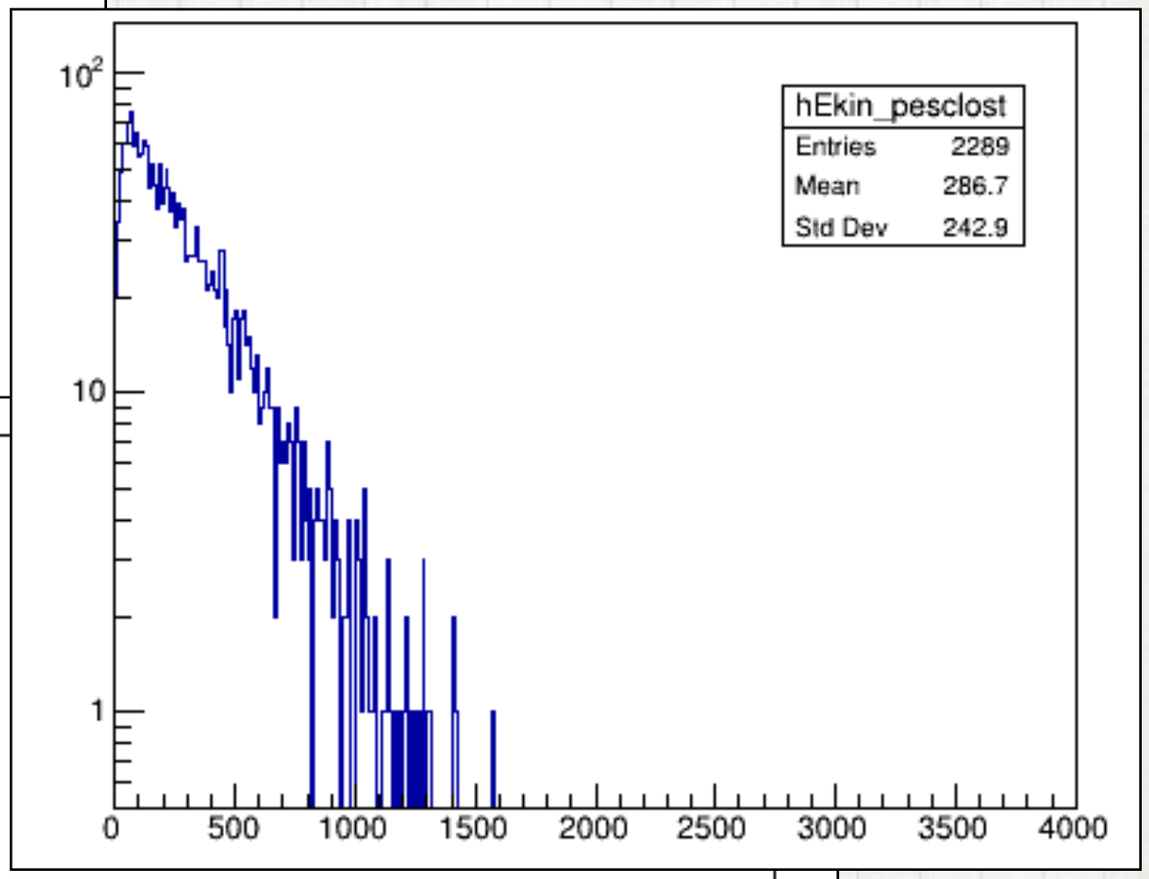


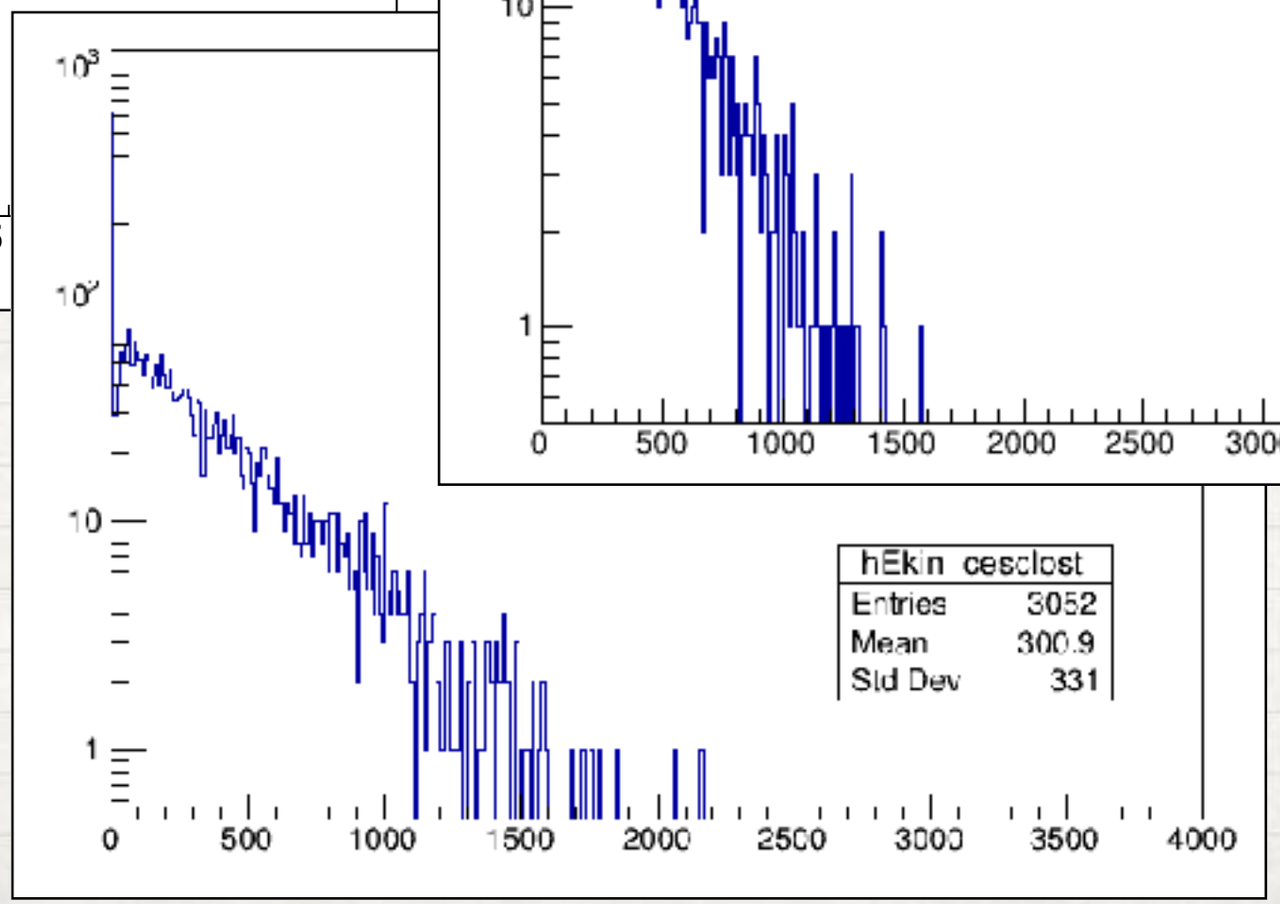
CALORIMETRO

CRISTALLO MONOBLOCCO 7 CM

300 MeV/u

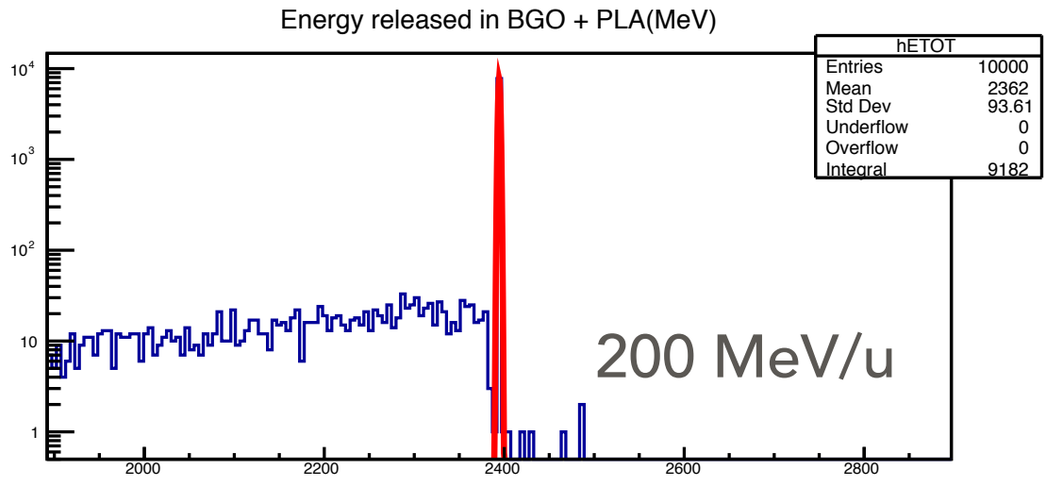


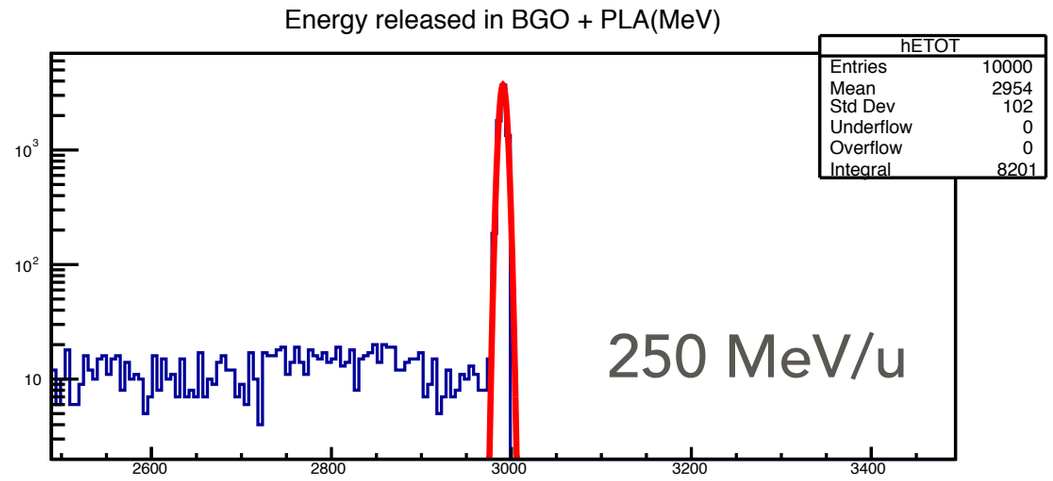


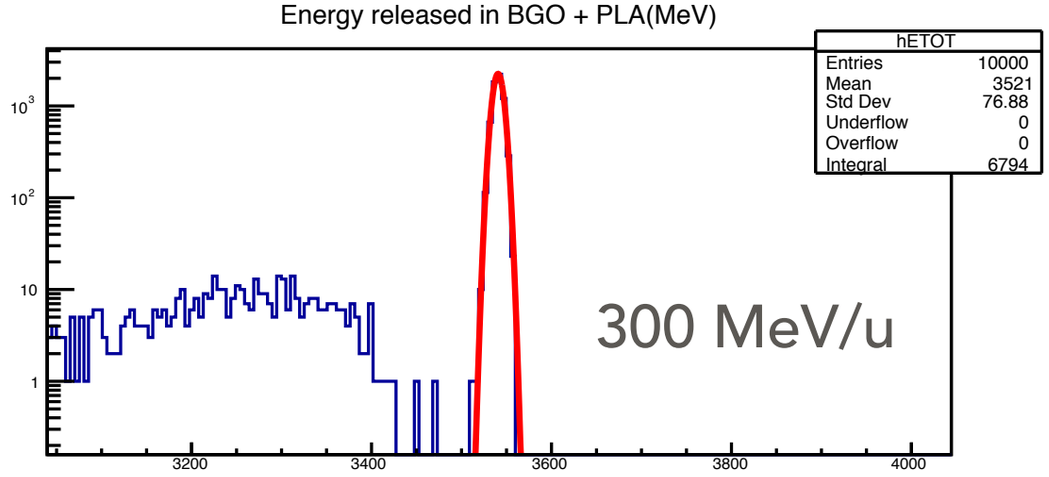


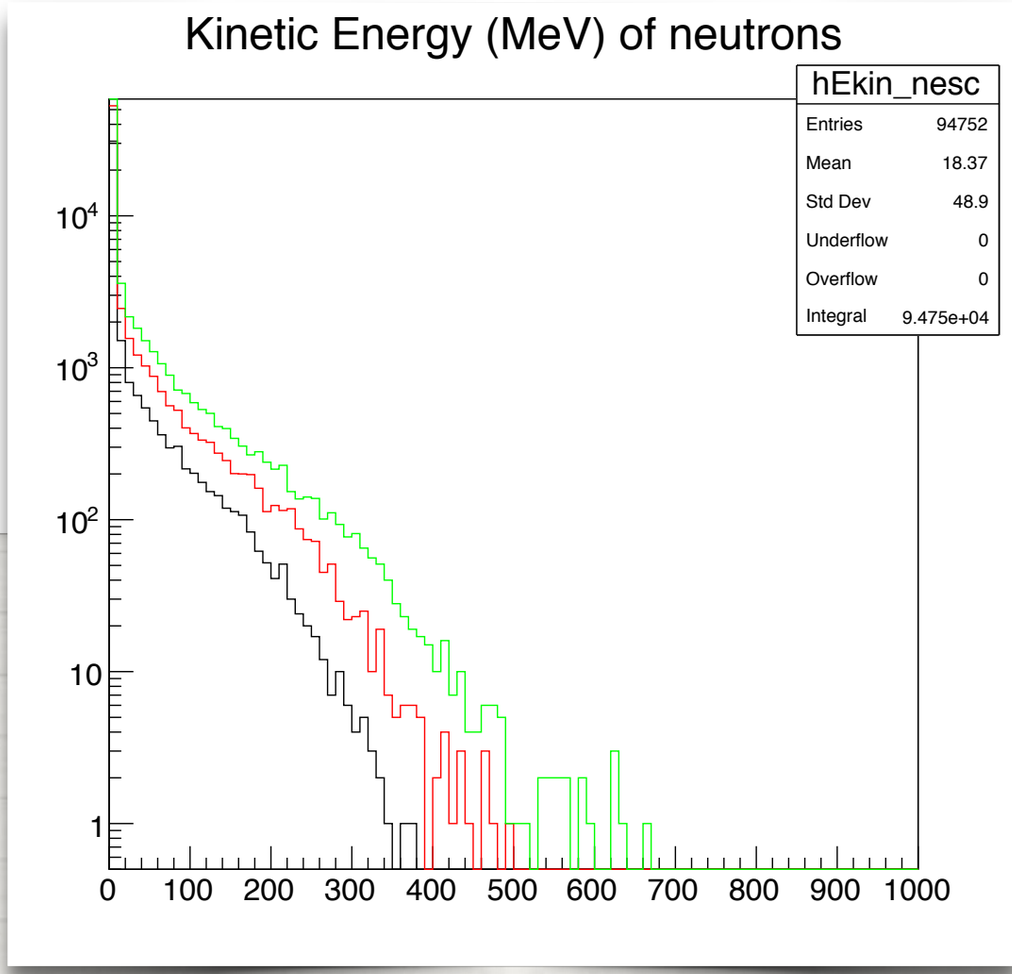
CALORIMETRO

CRISTALLO MONOBLOCCO 11 CM



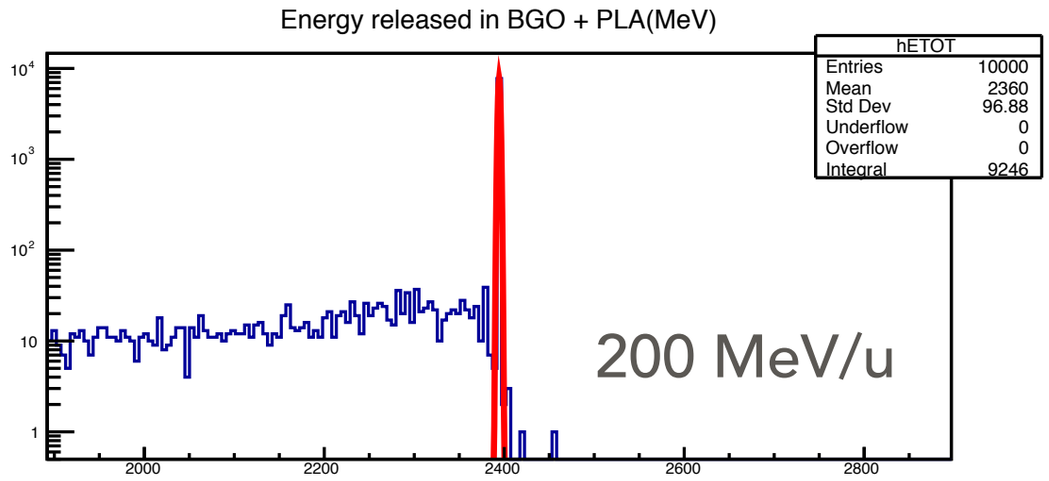


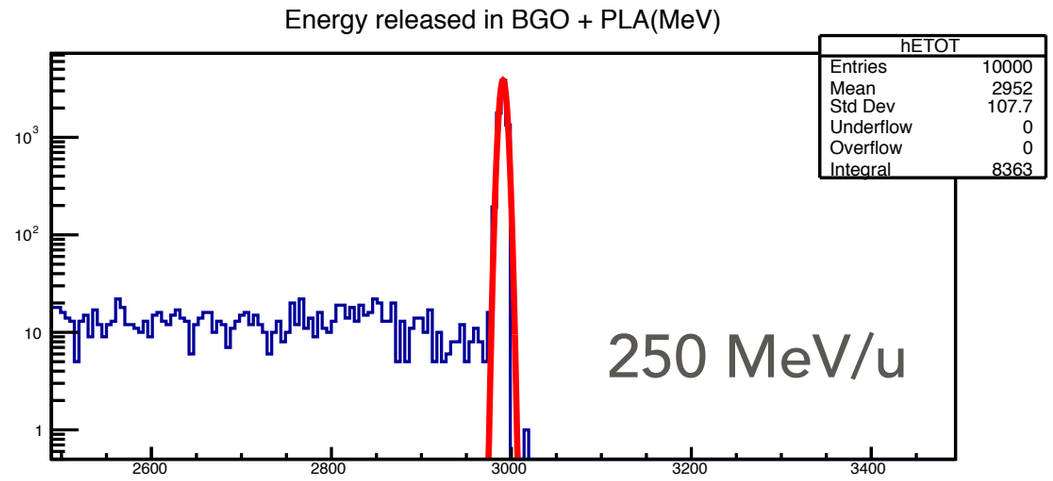


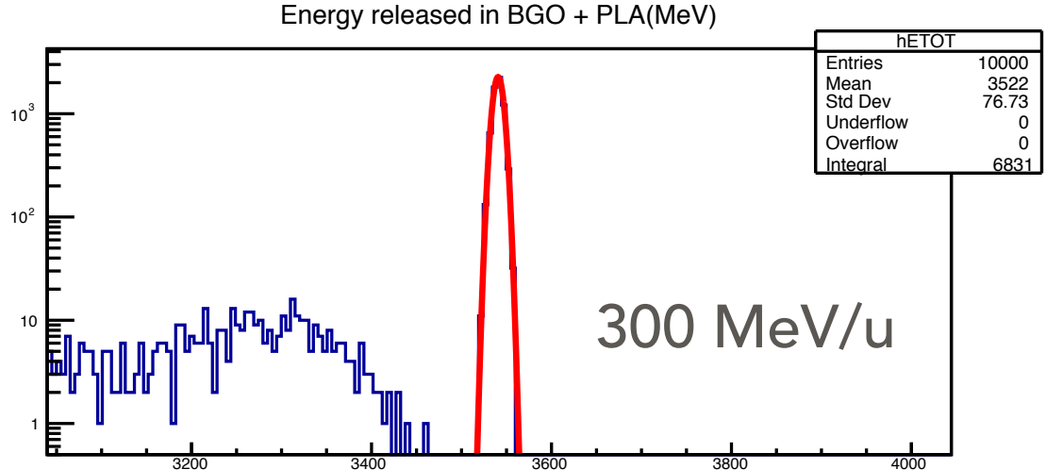


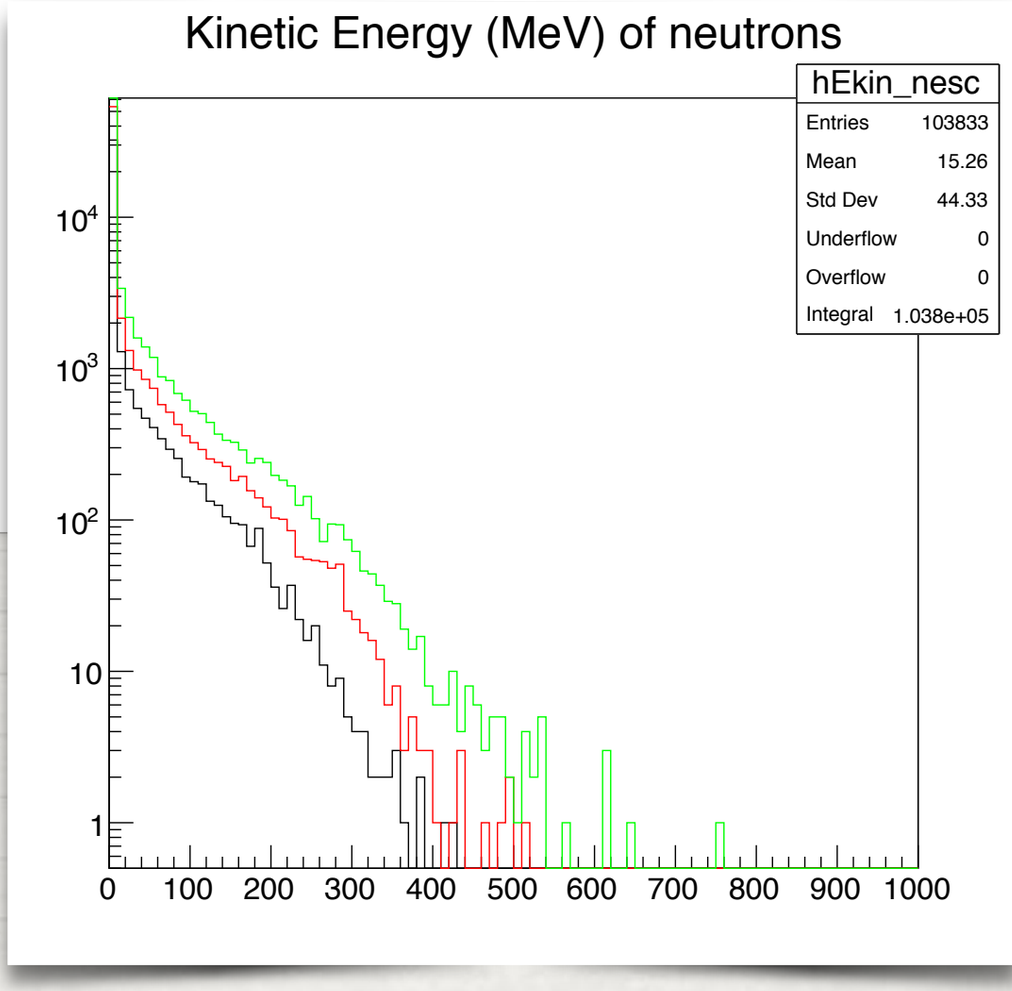
CALORIMETRO

CRISTALLO MONOBLOCCO 14 CM



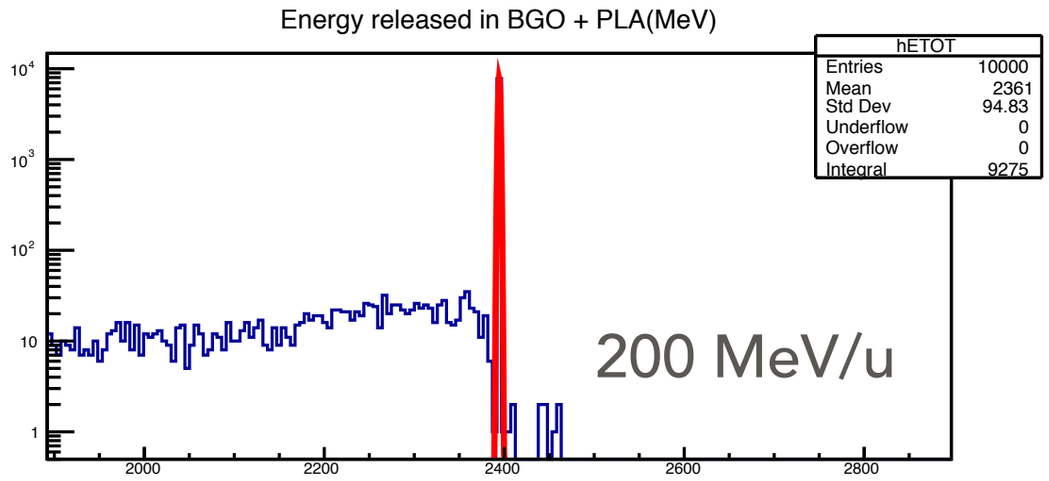


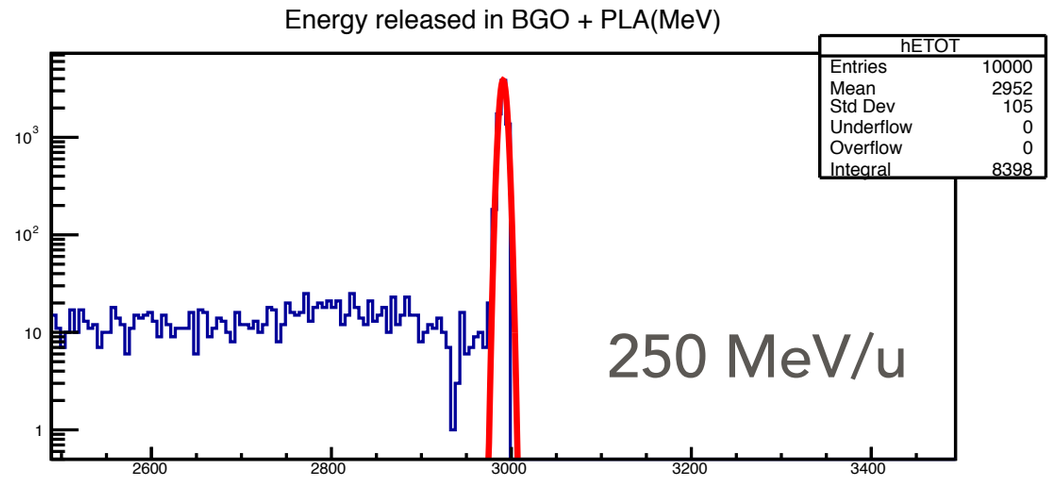


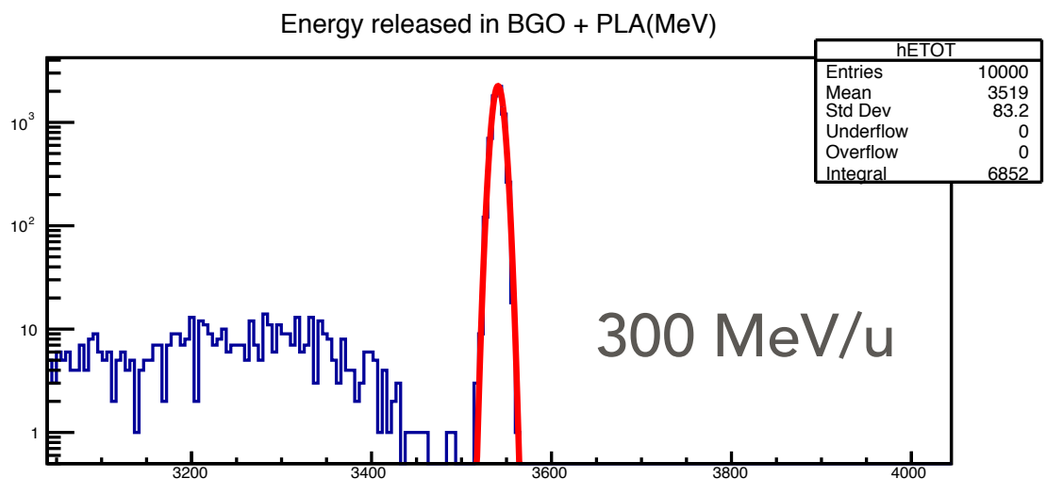


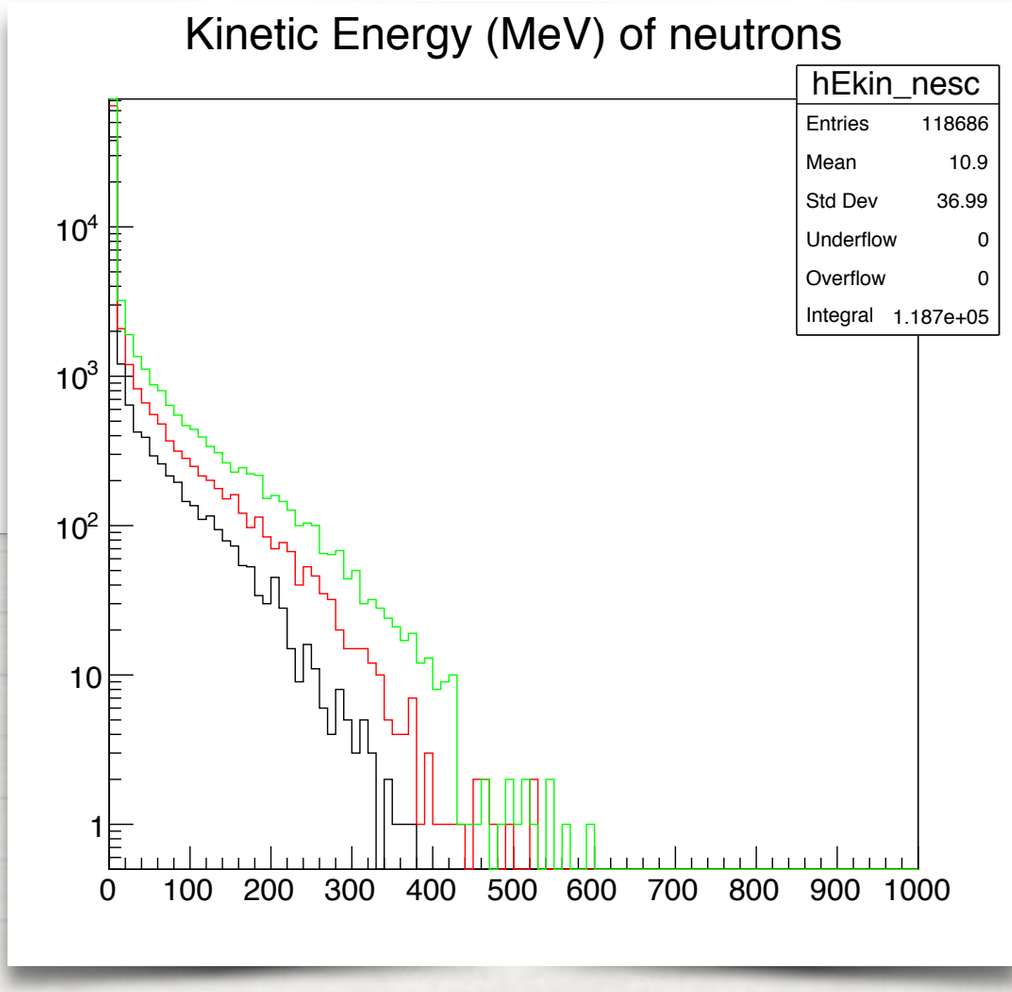
CALORIMETRO

CRISTALLO MONOBLOCCO 22 CM



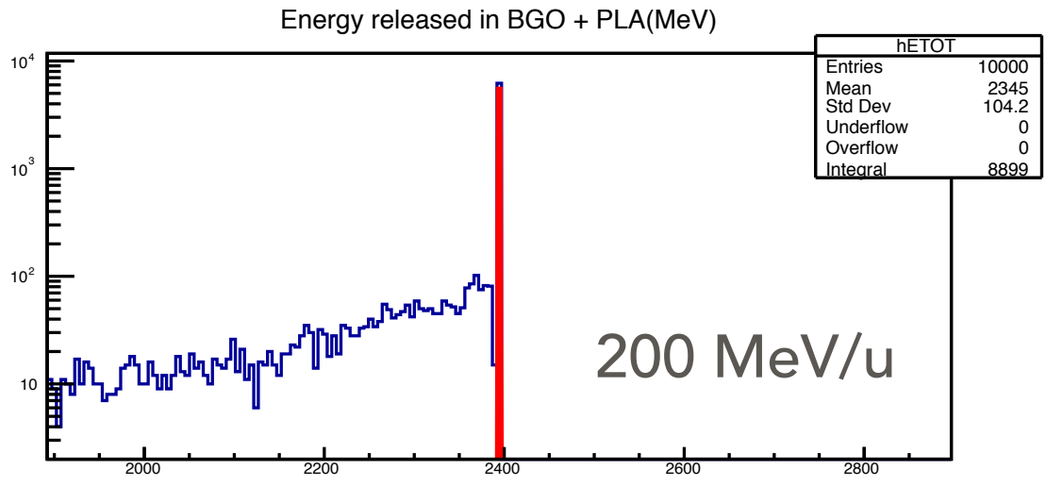


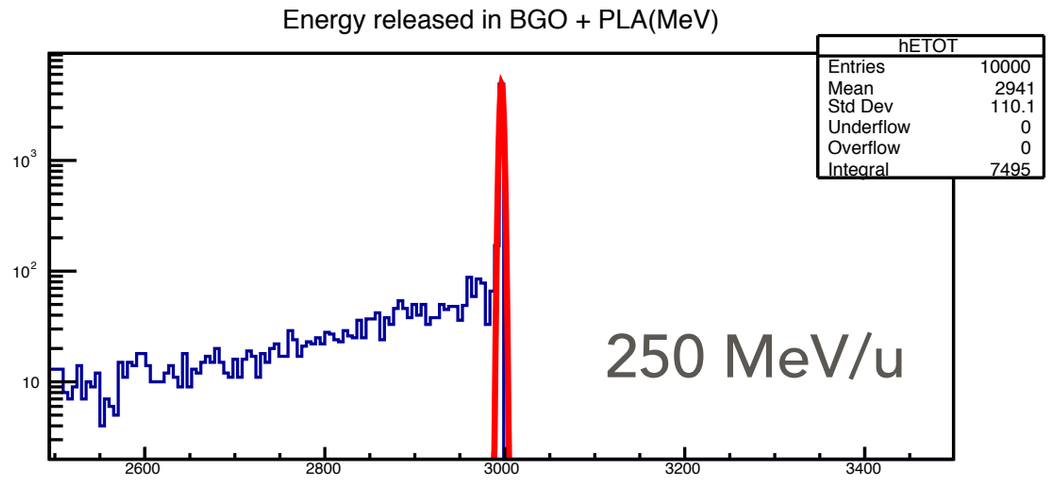


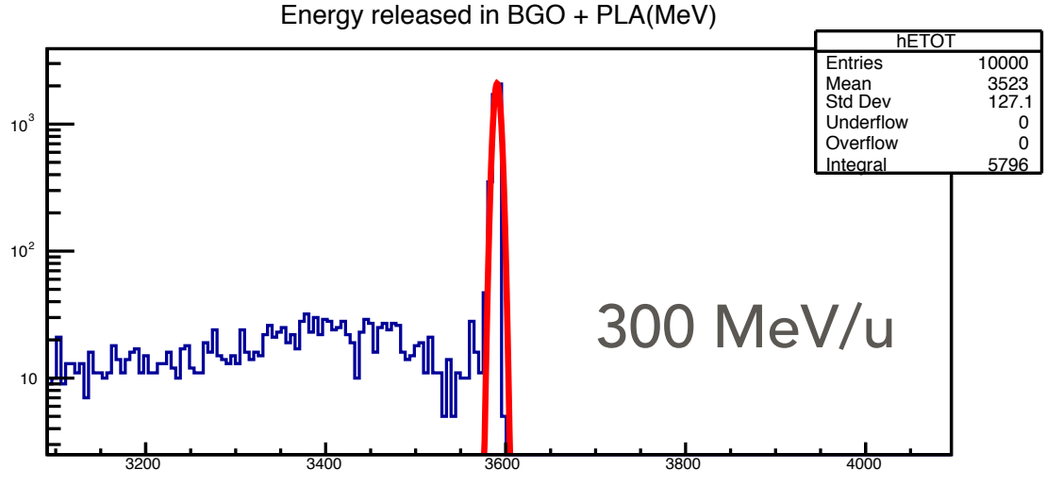


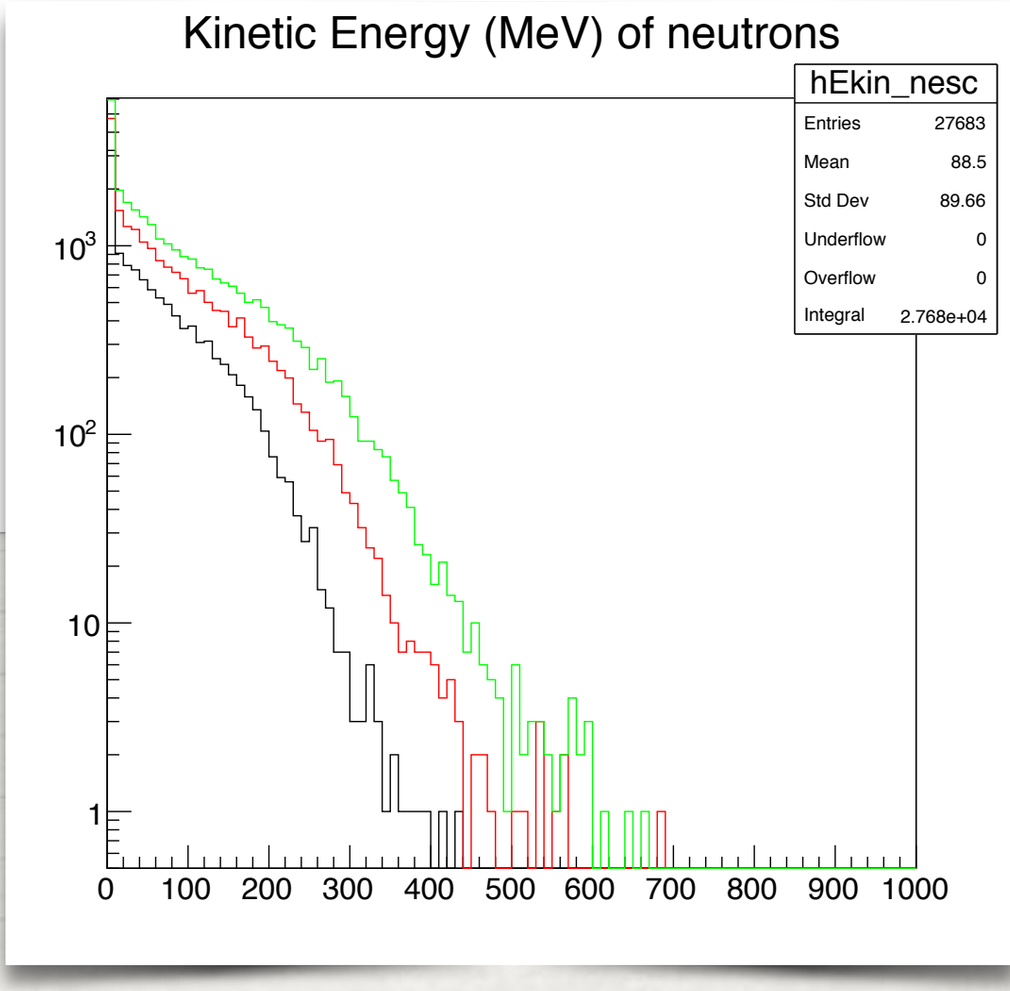
CALORIMETRO

SCINTILLATORE MONOBLOCCO 22 CM



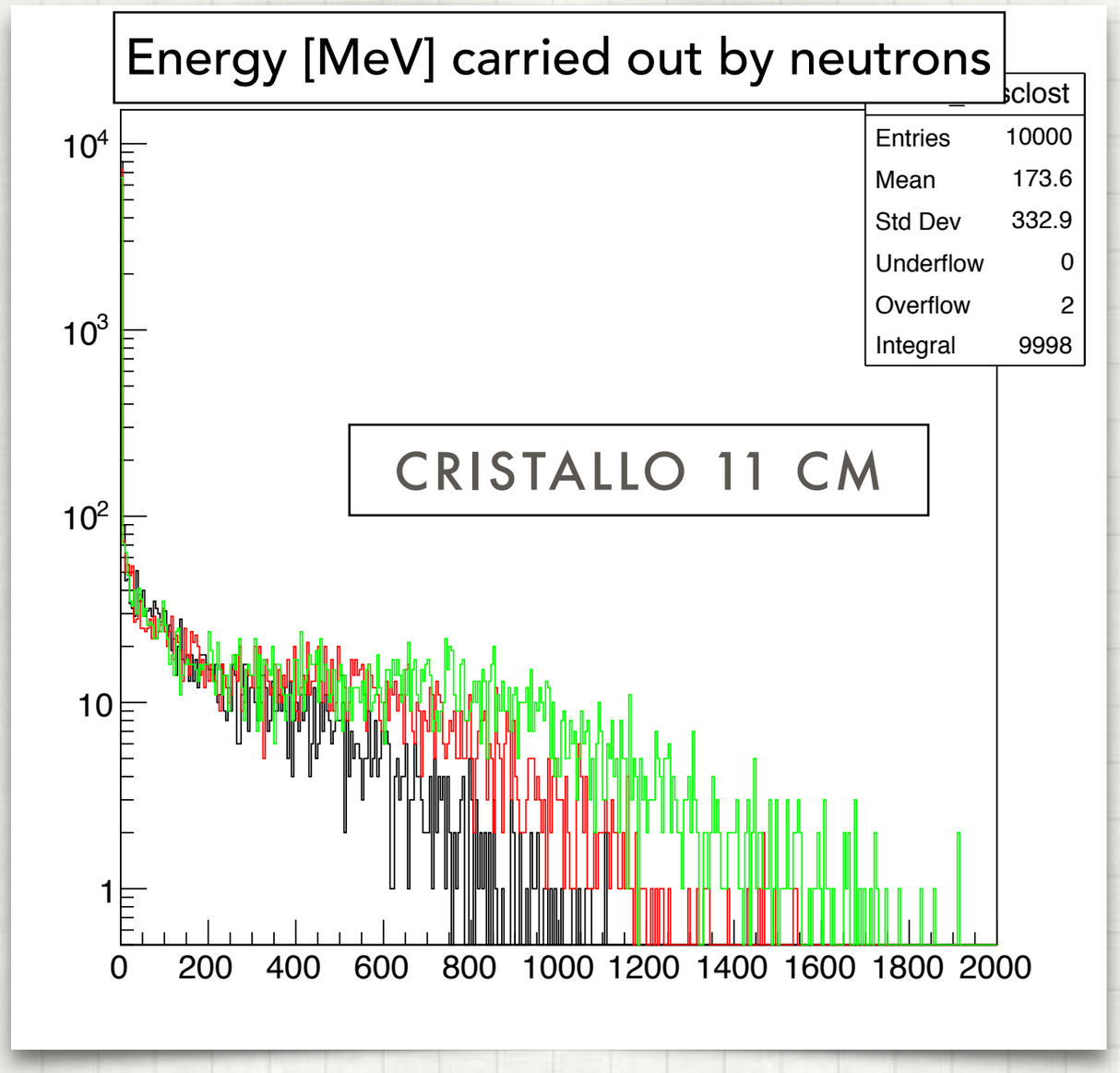


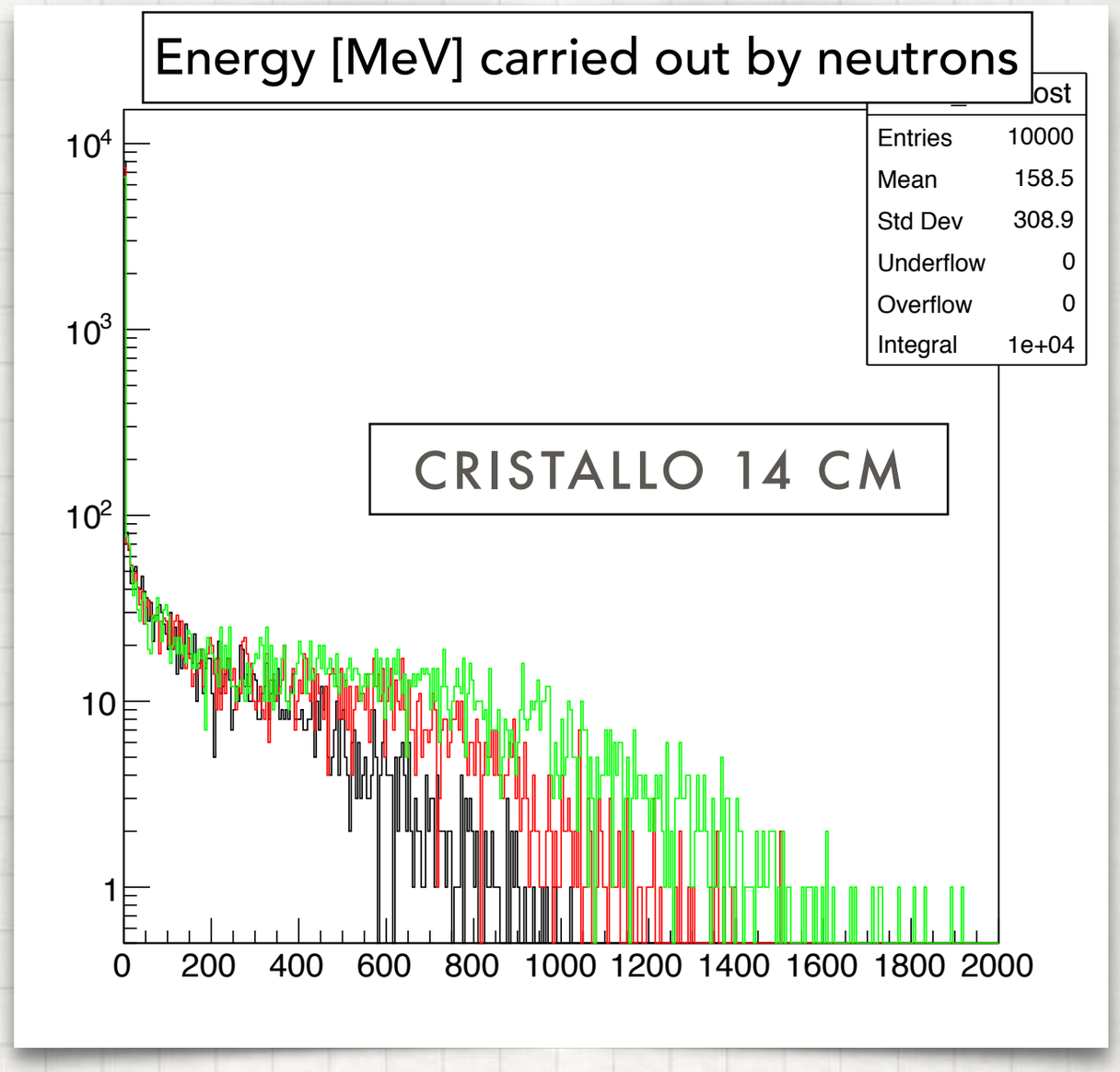




CALORIMETRO

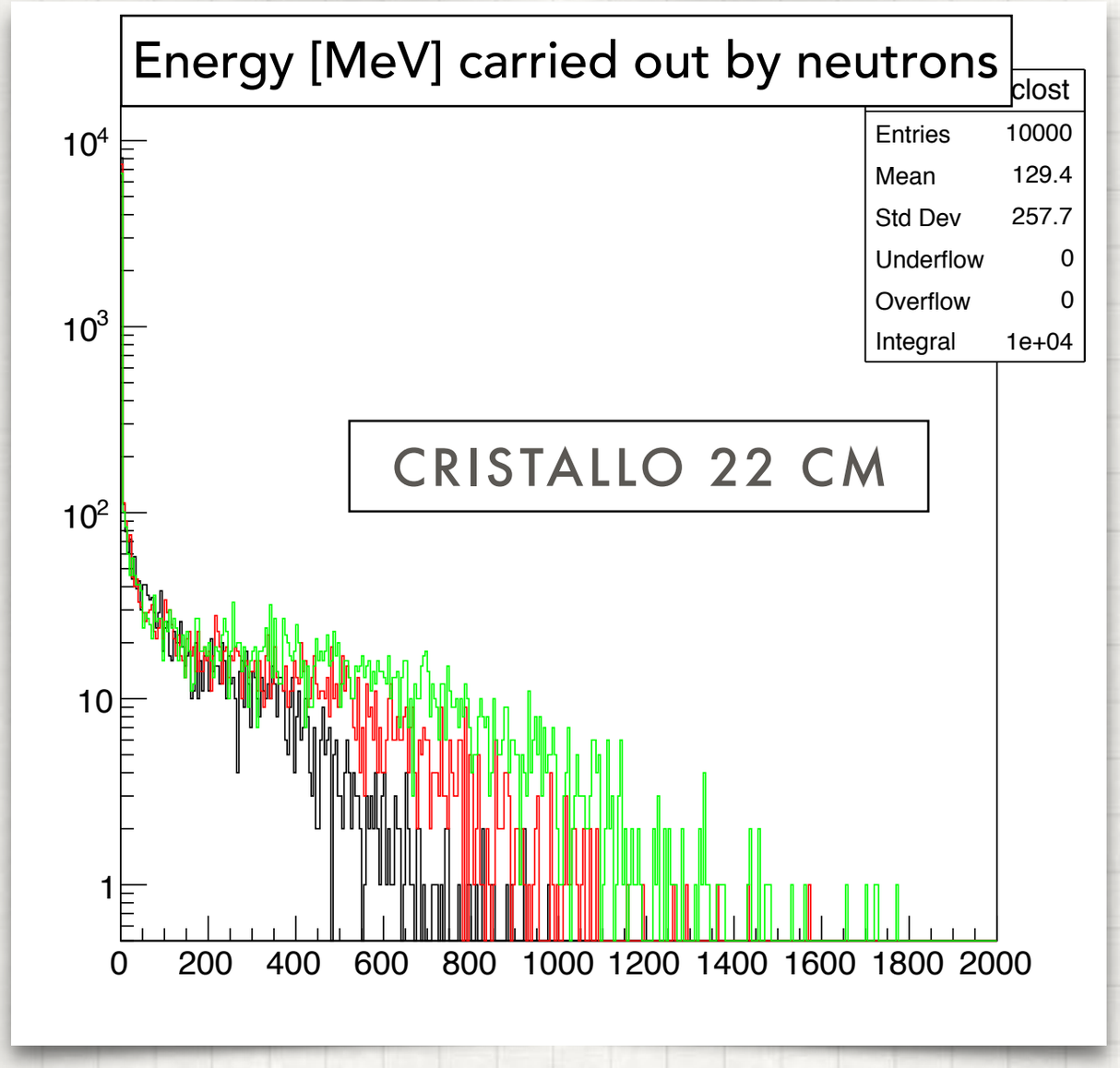
nero = 200 MeV/u
rosso = 250 MeV/u
verde = 300 MeV/u

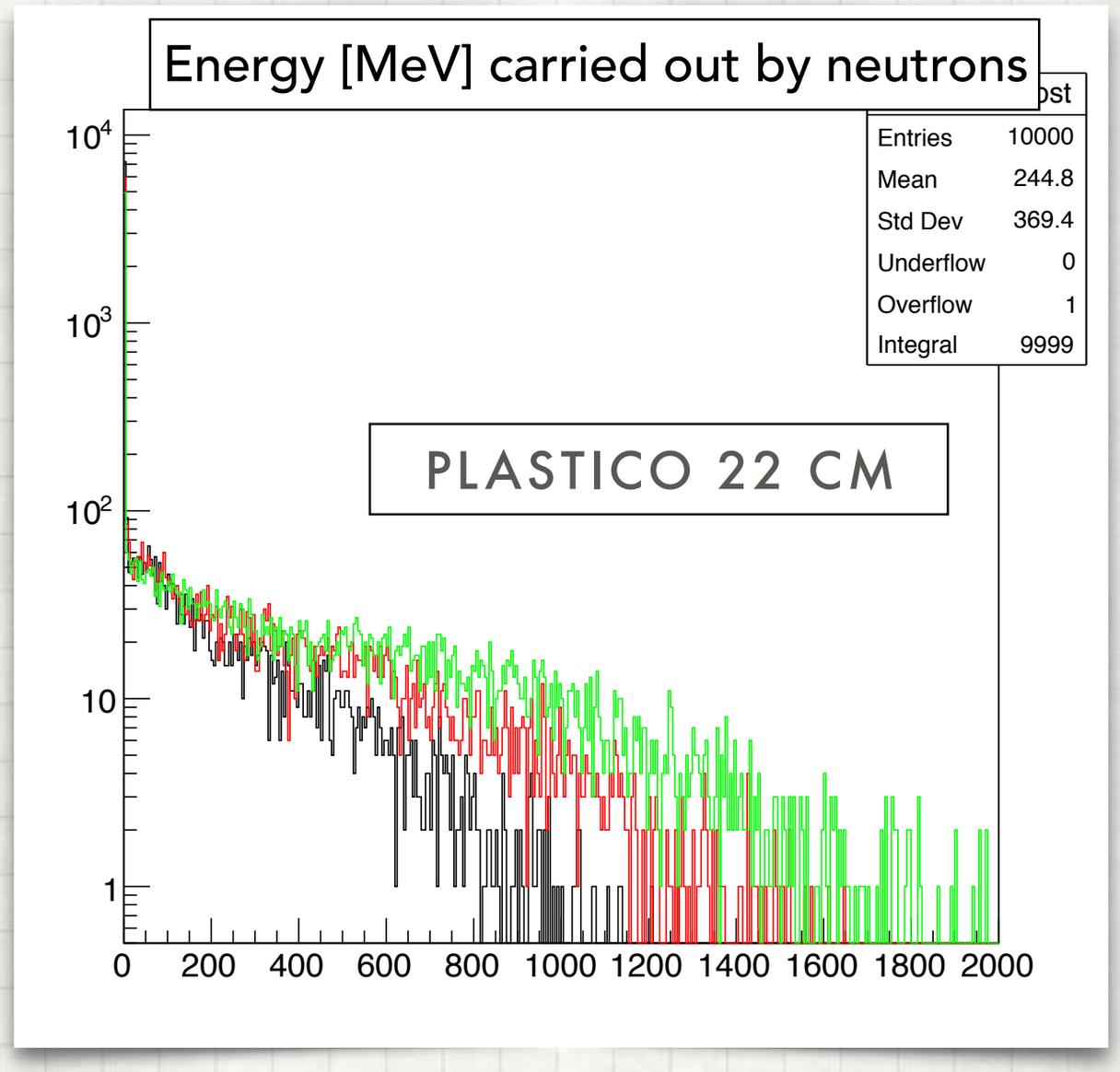


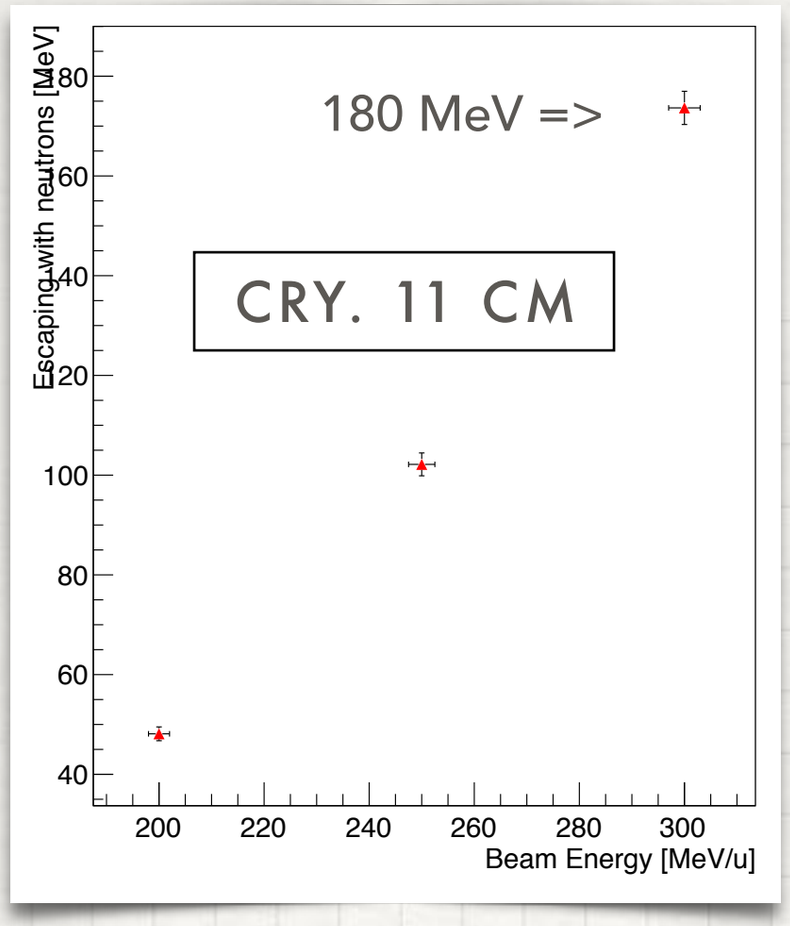


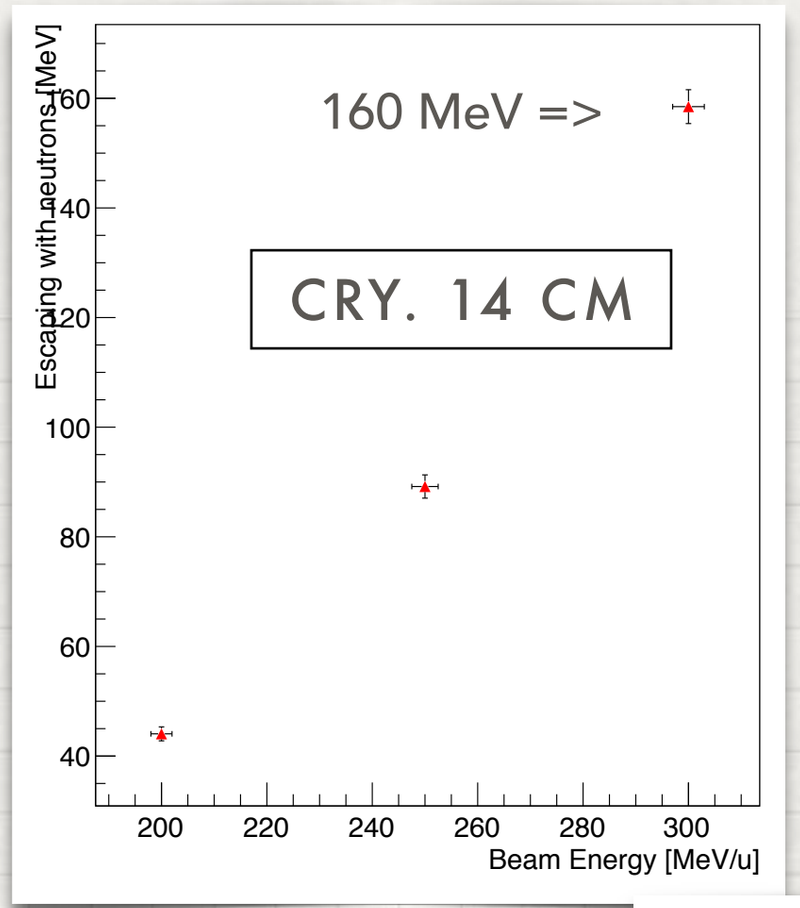
CALORIMETRO

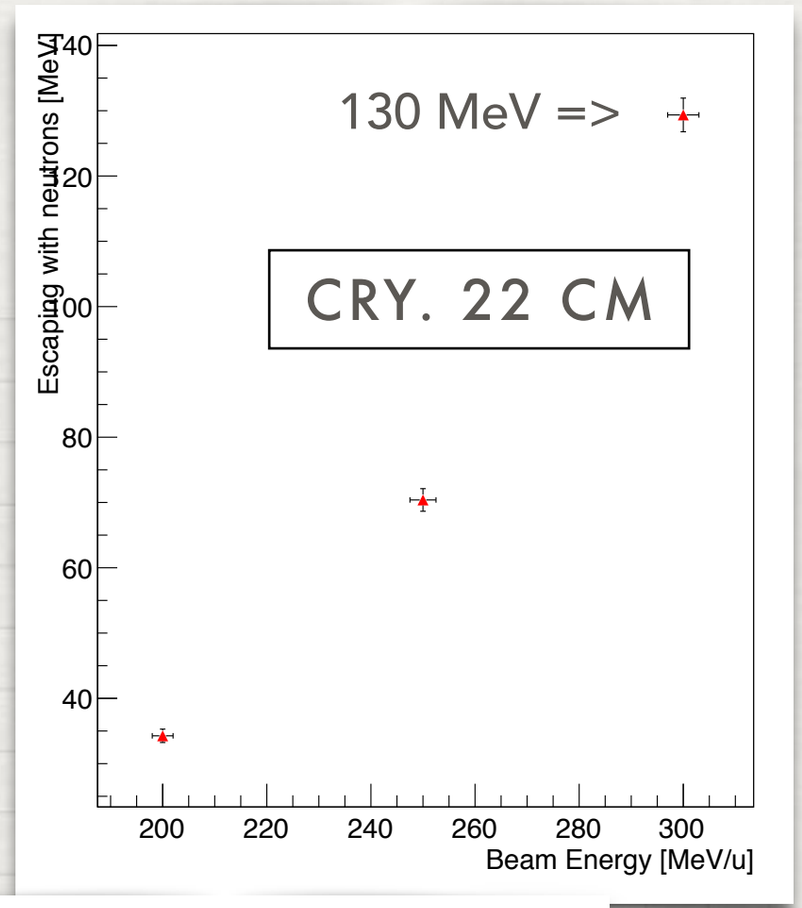
nero = 200 MeV/u
rosso = 250 MeV/u
verde = 300 MeV/u



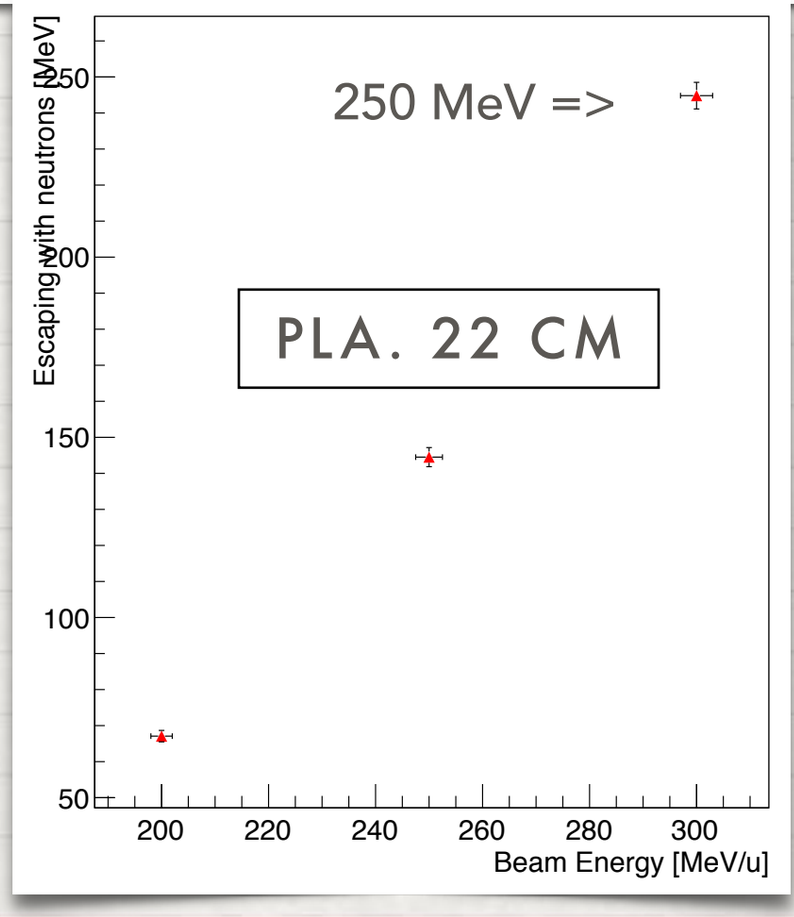




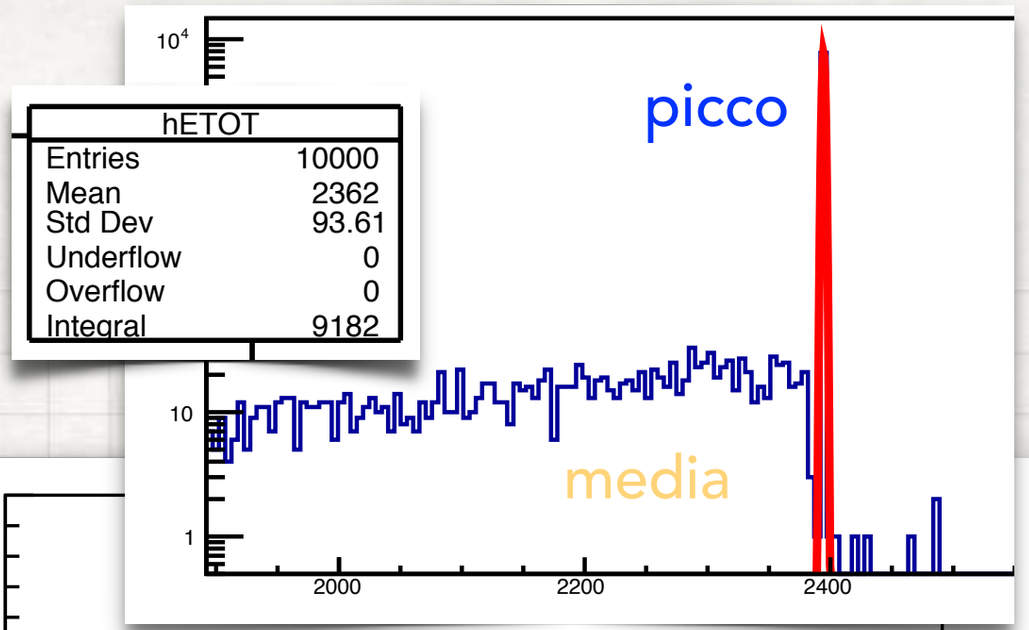


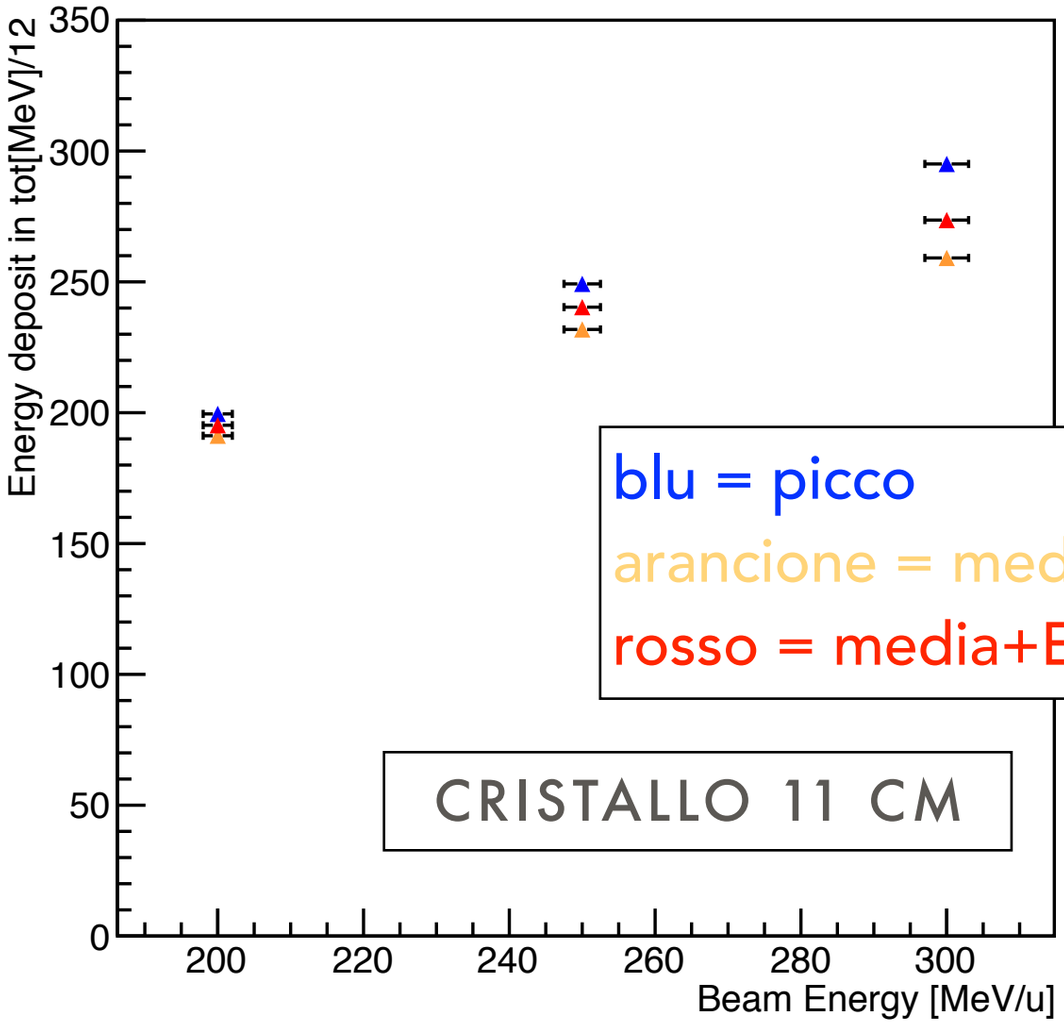


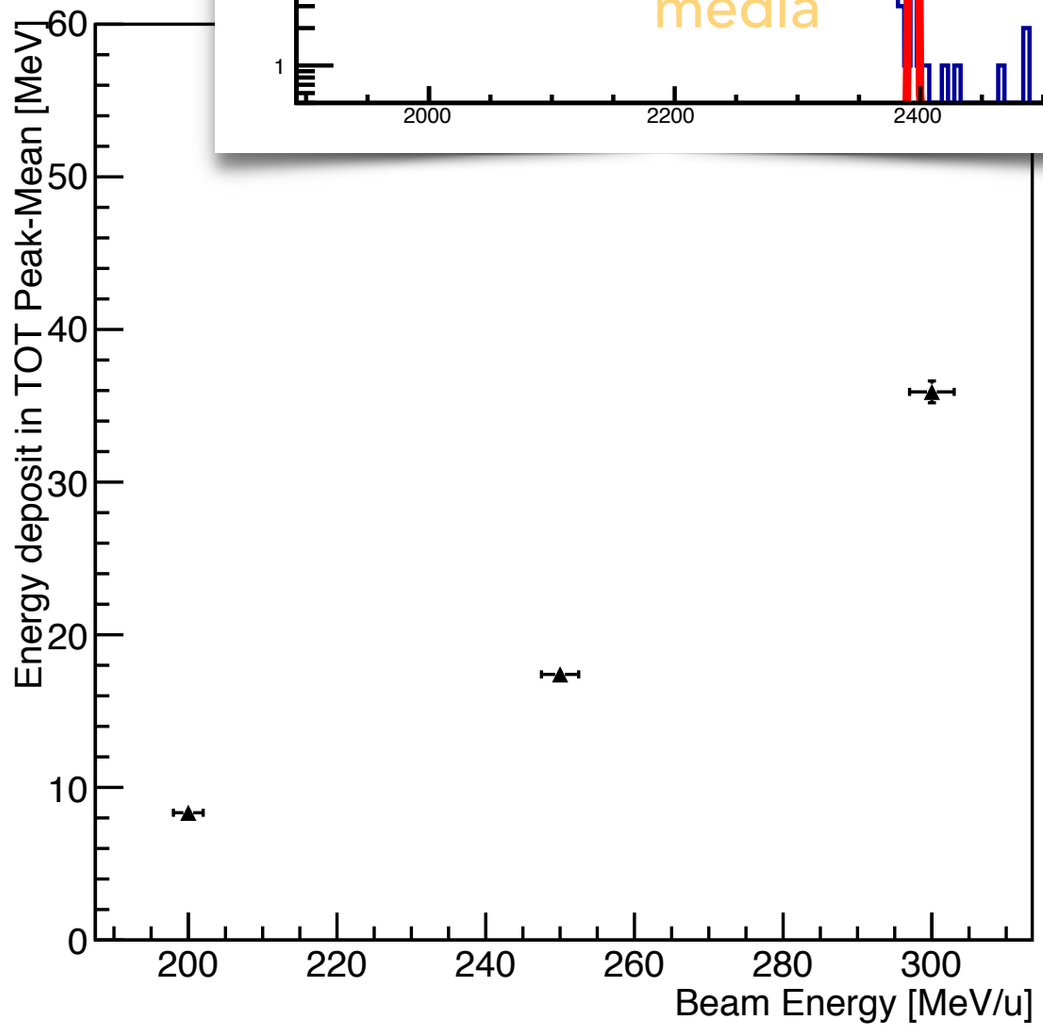
Energy [MeV] carried out by neutrons



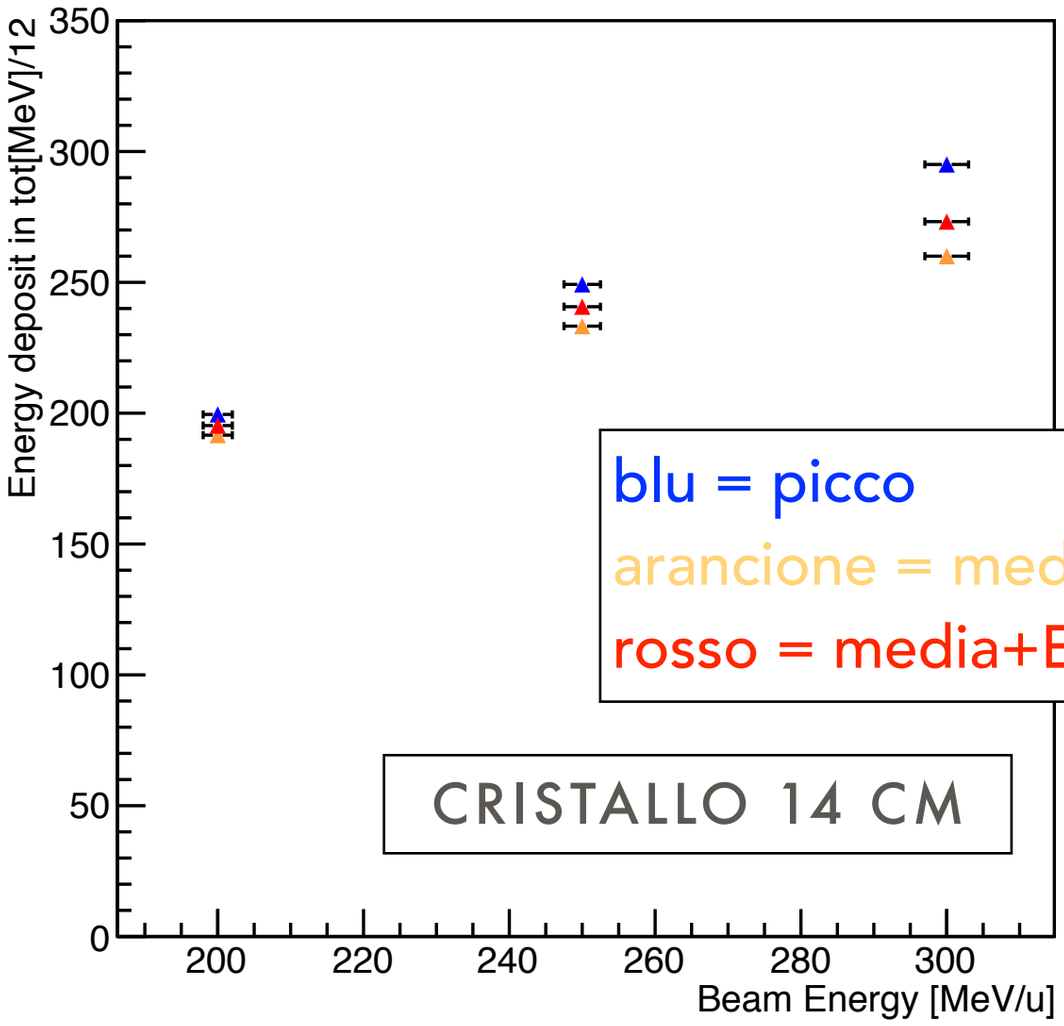
CALORIMETRO

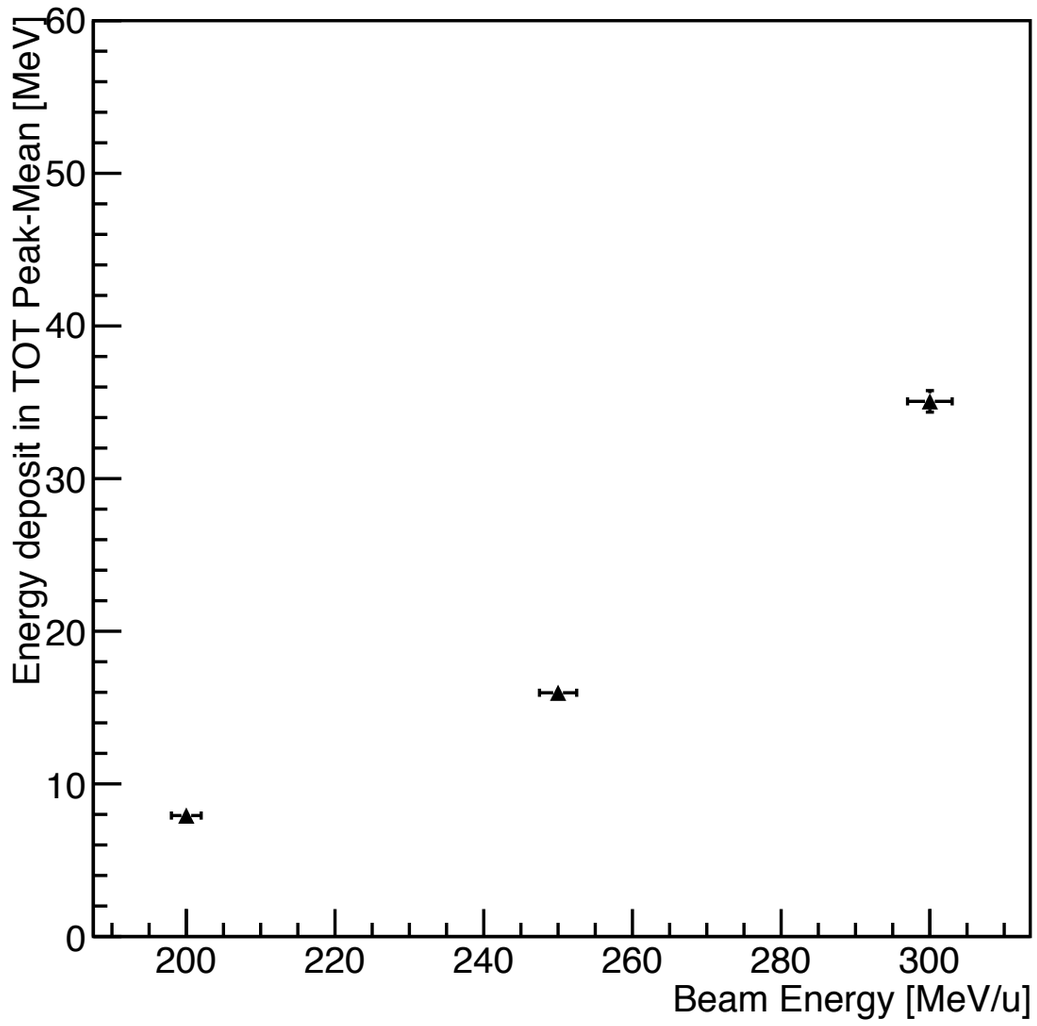




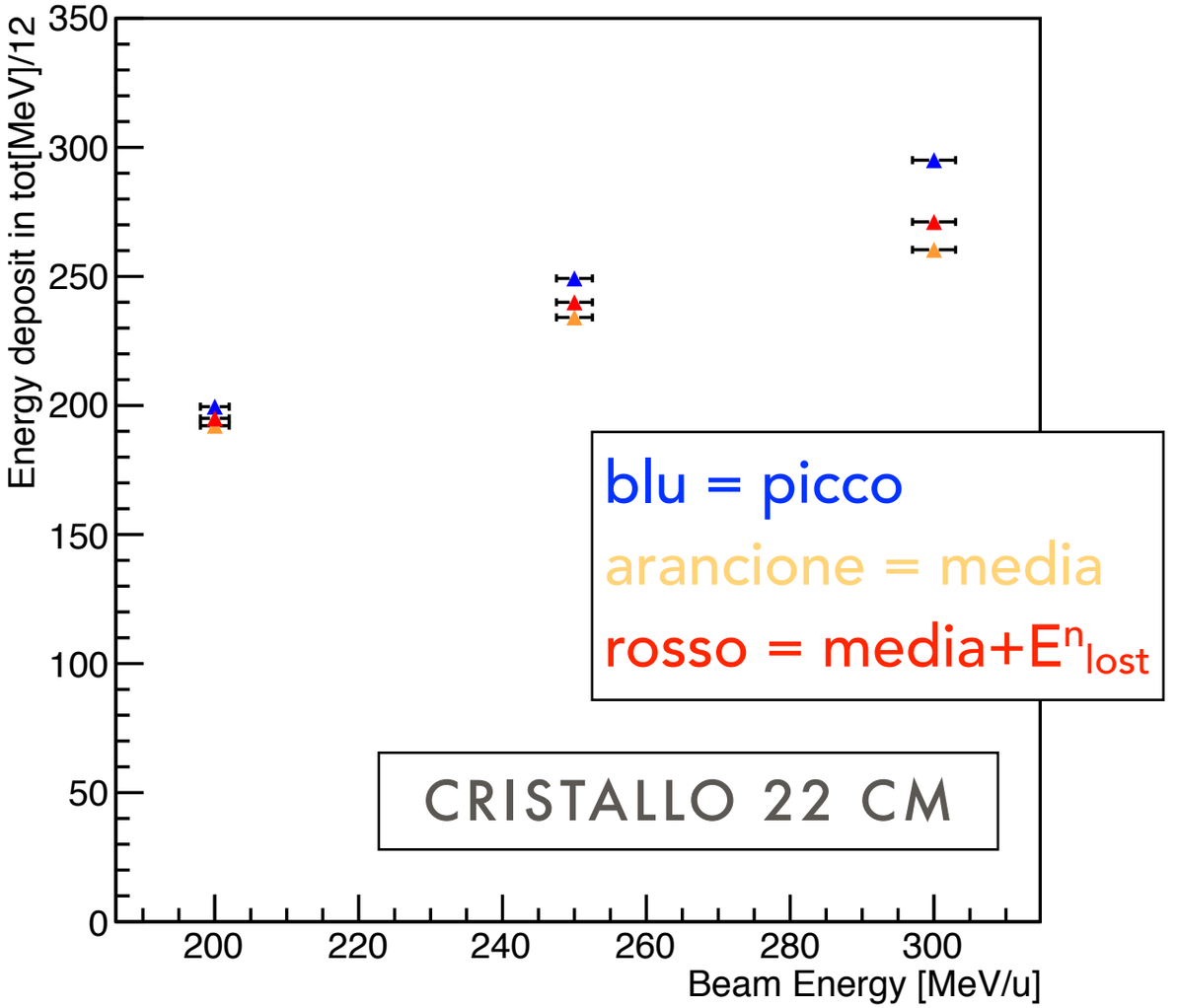


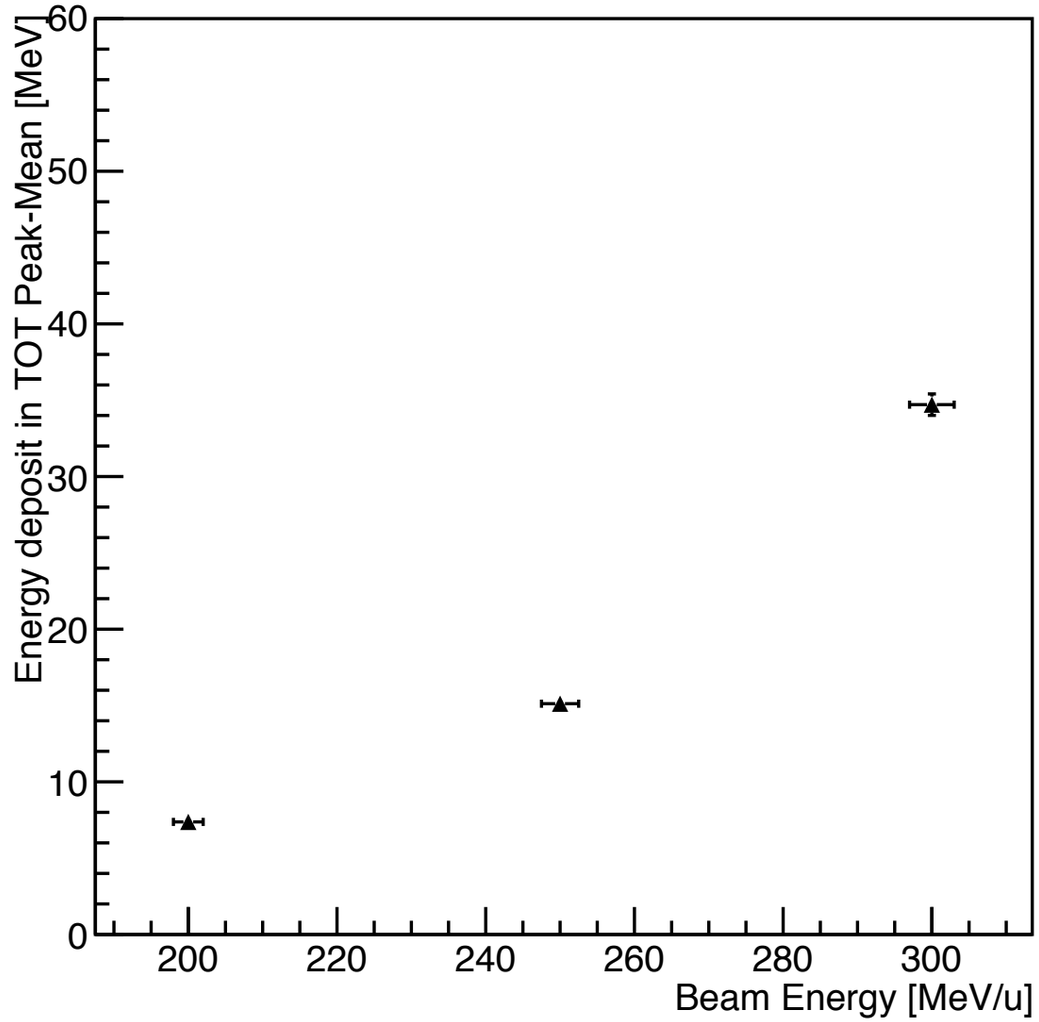
CALORIMETRO



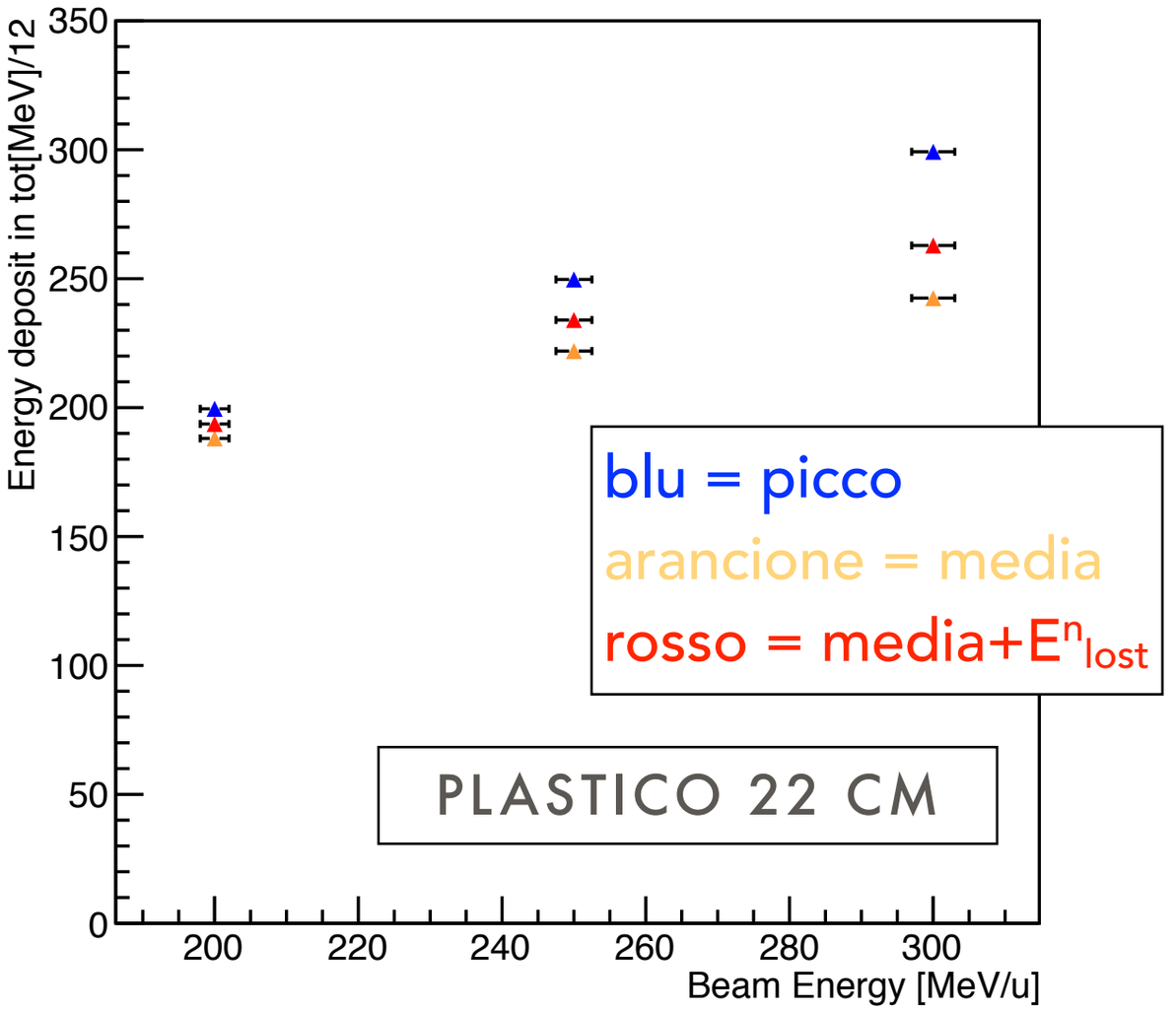


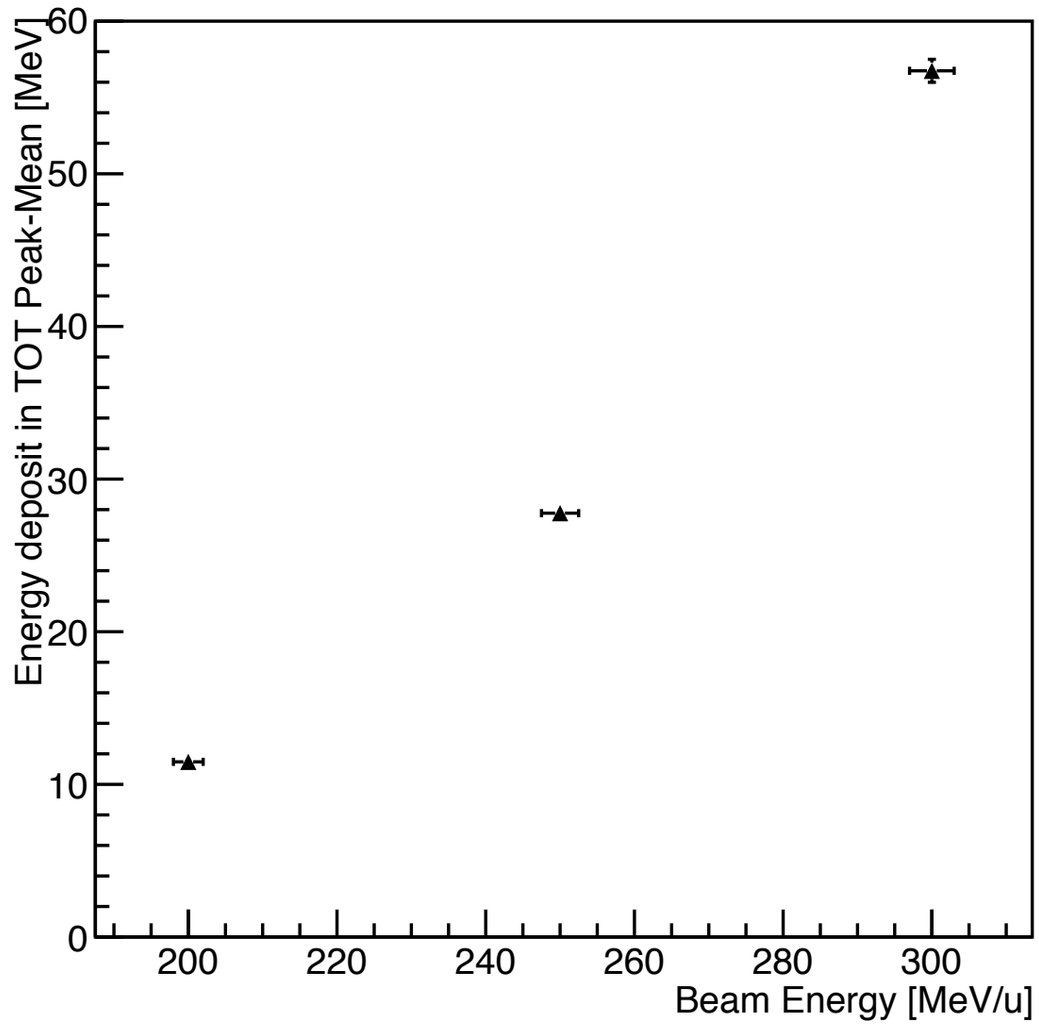
CALORIMETRO





CALORIMETRO

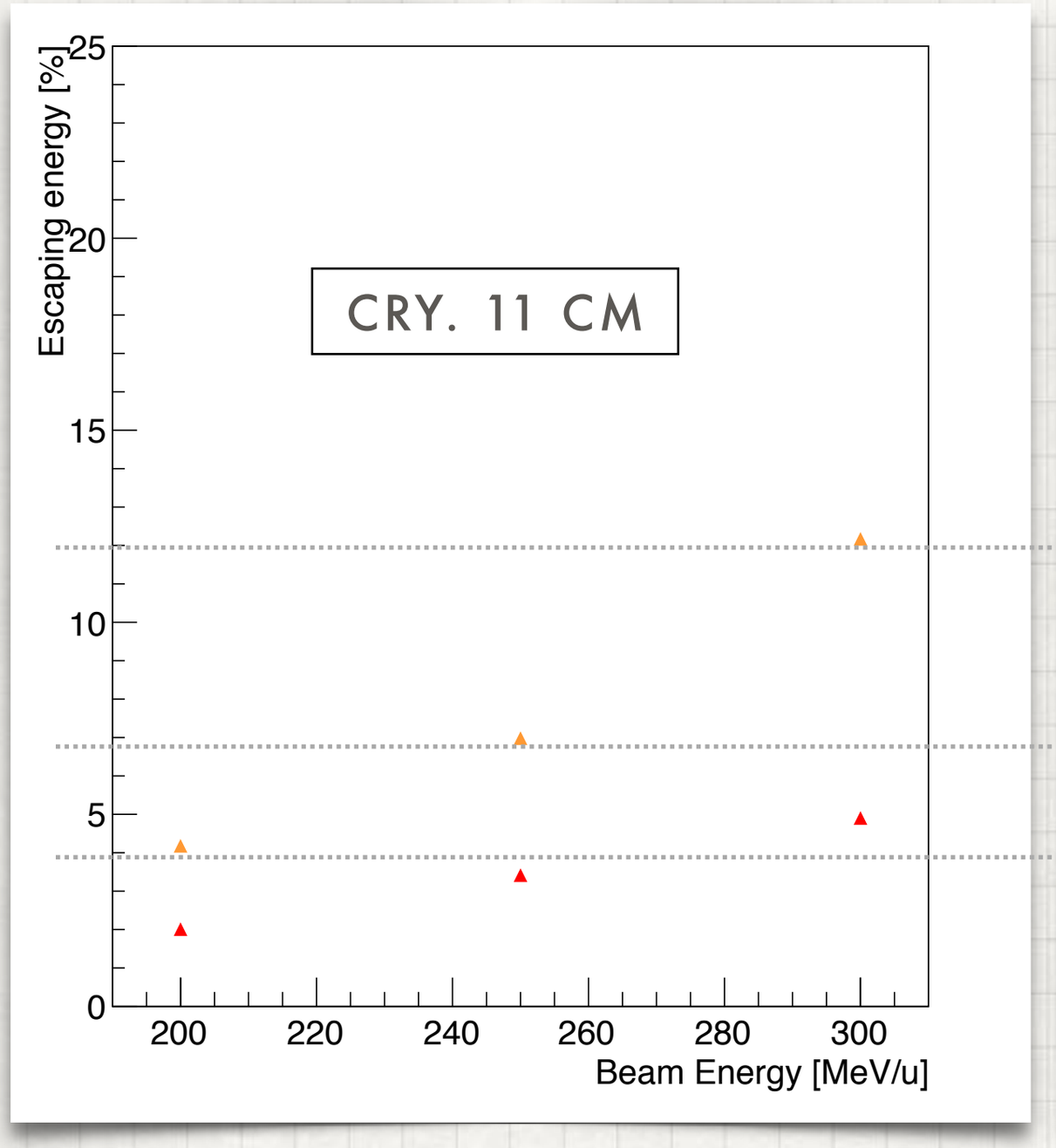


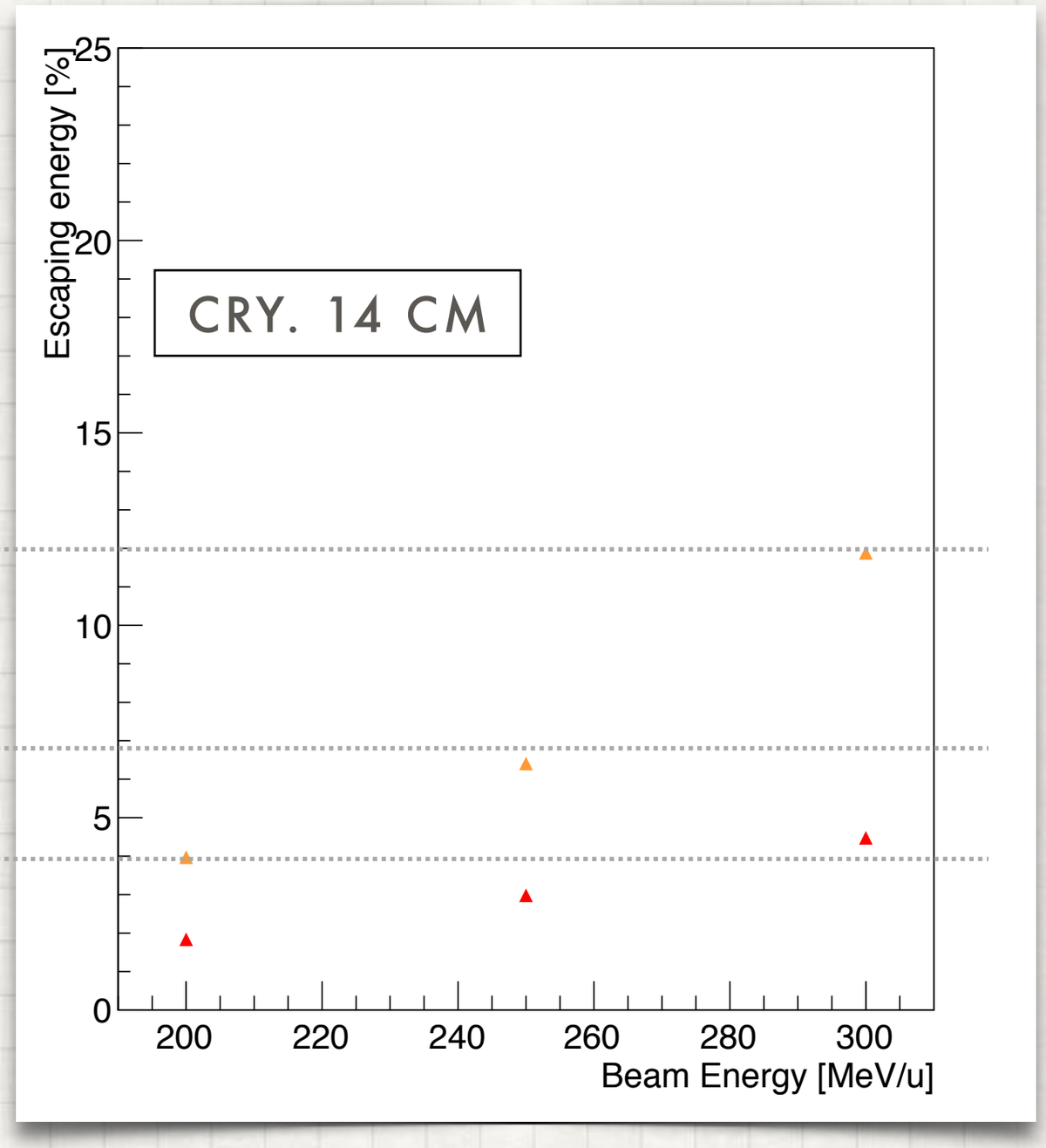


CALORIMETRO

arancione = total energy lost

rosso = energy lost with neutron





CALORIMETRO

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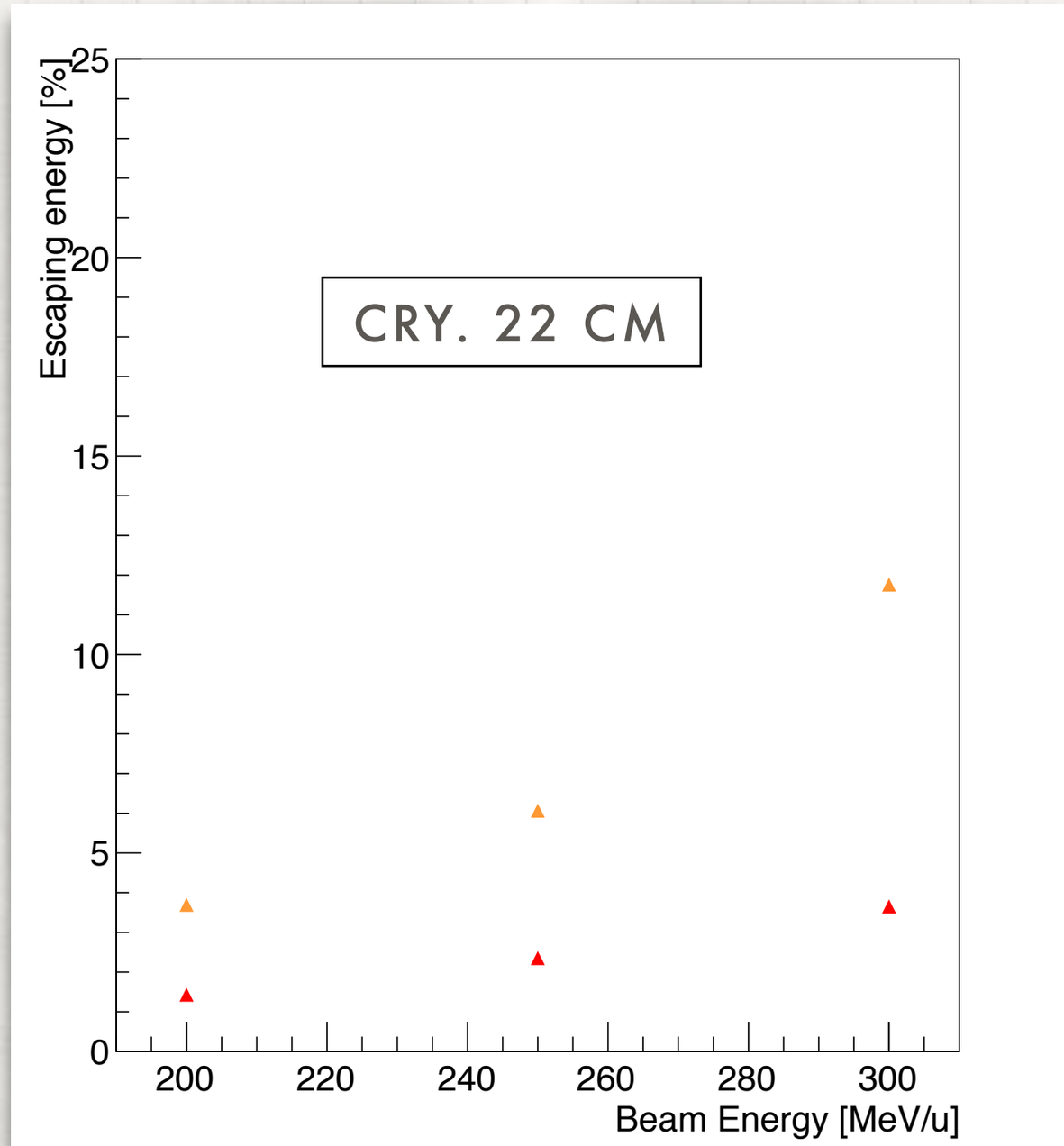

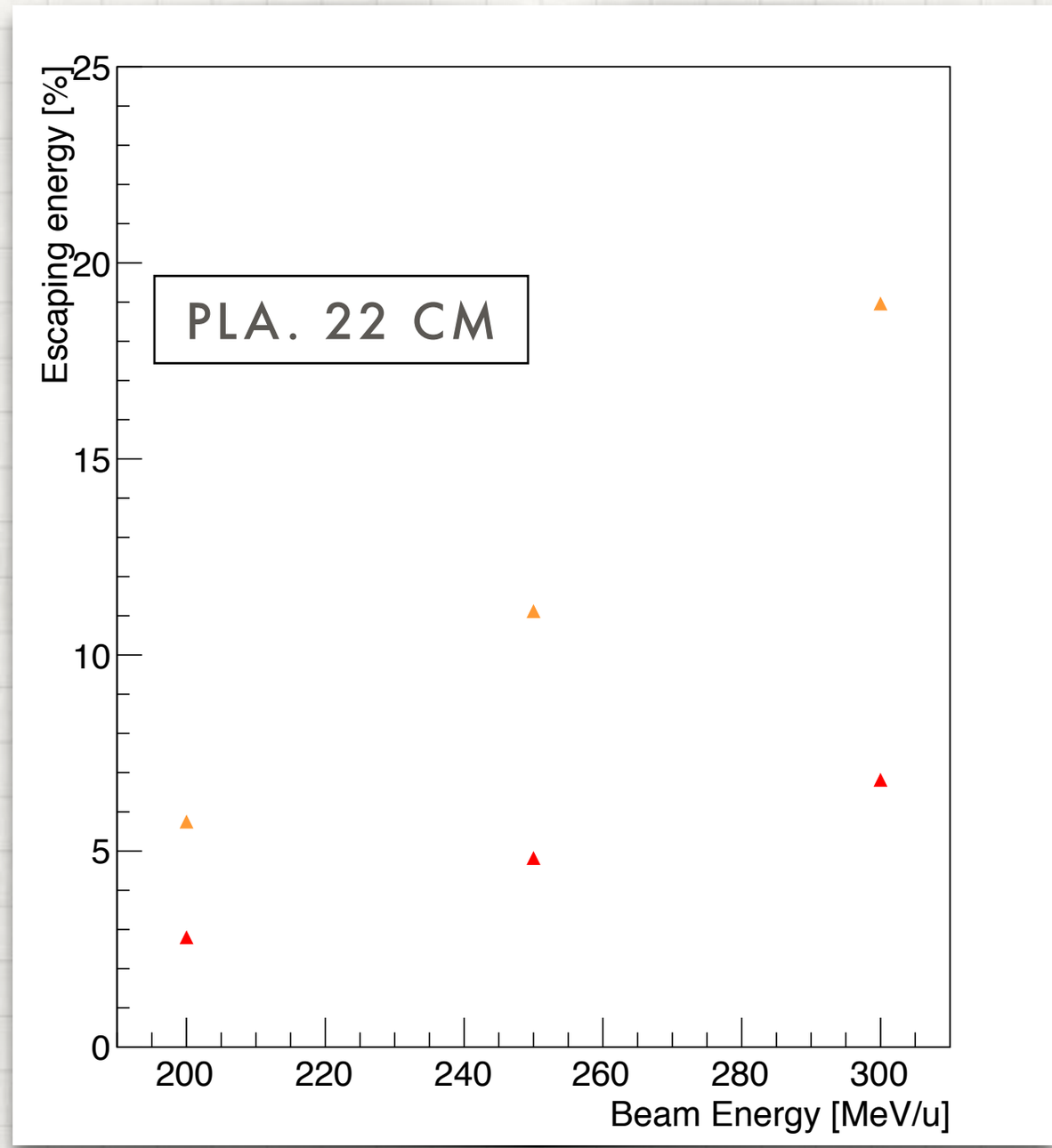

CALORIMETRO

Il punto è che da un certo punto di vista la lunghezza delle cristallo conta ‘’poco” per i neutroni (che tanto ce li perdiamo lo stesso, 2-5%) mentre diventa rilevante per i carichi, es. dall’event display di Giuseppe e co. :