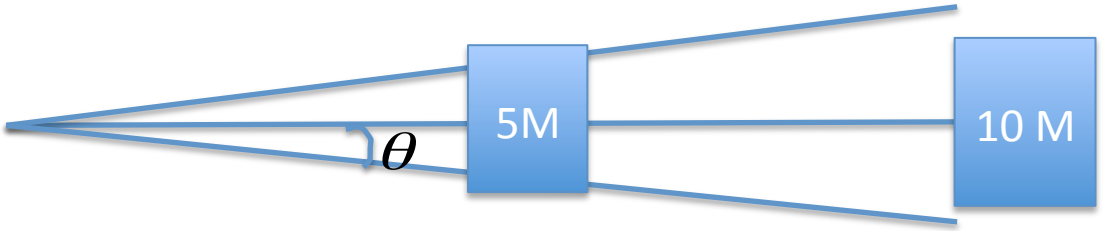
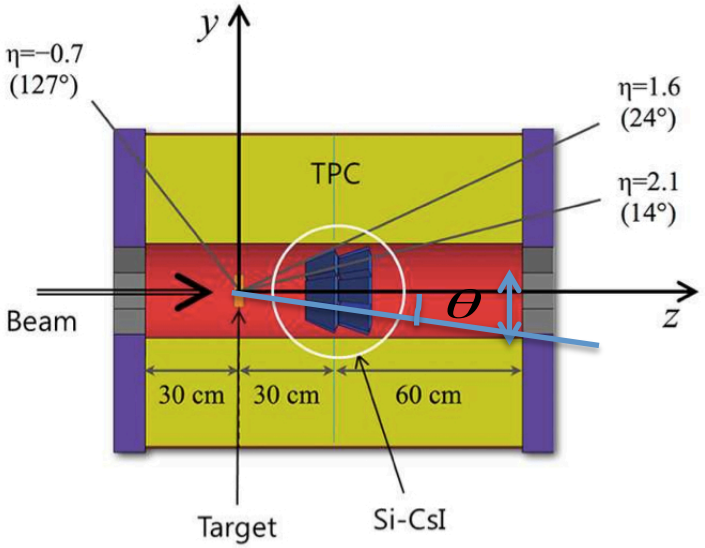
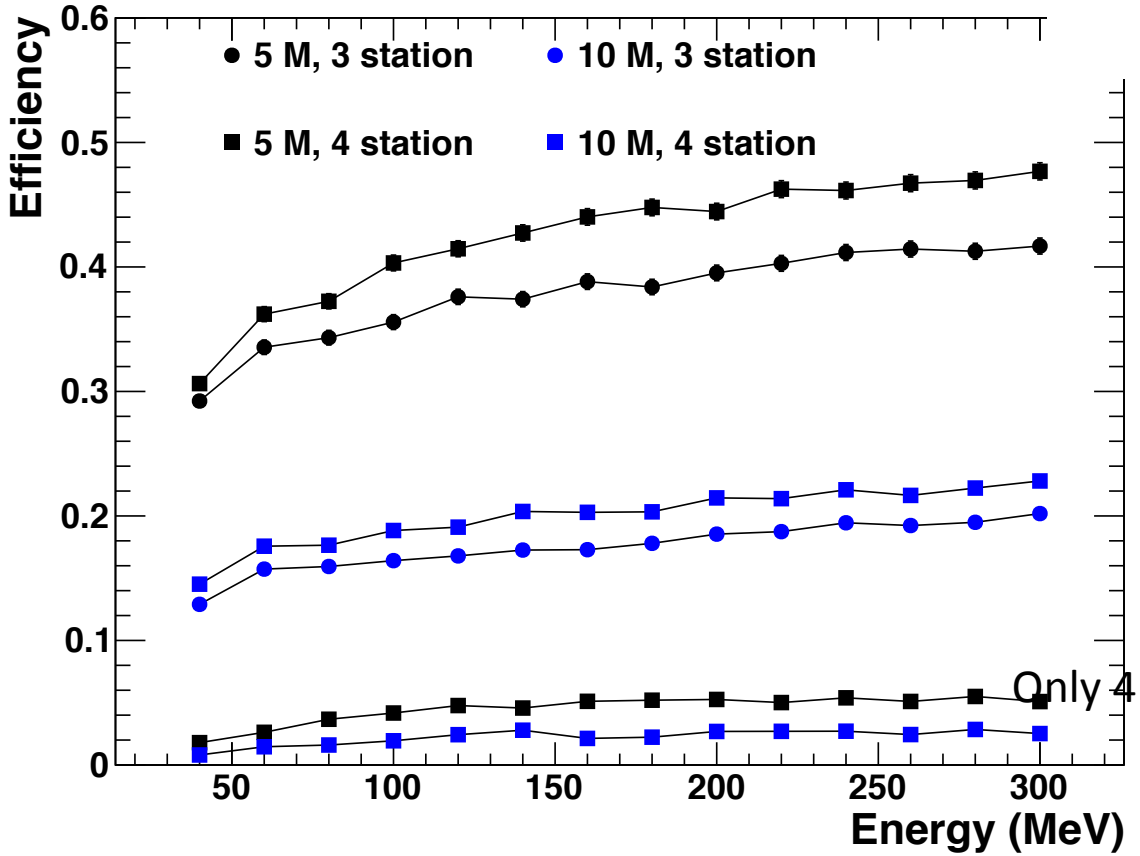
3 station detector is OK?





Single neutron efficiency



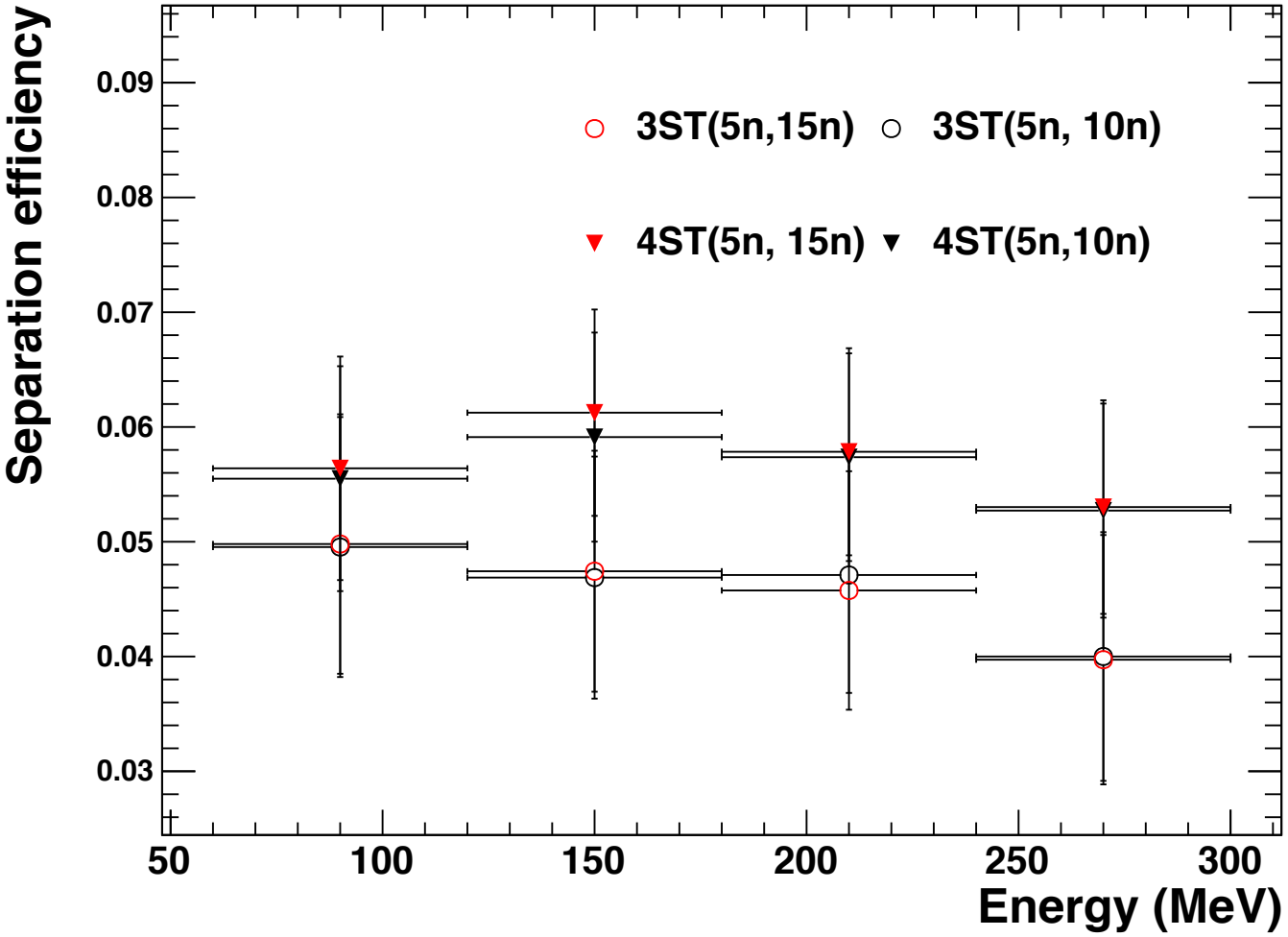
$$\theta = \tan^{-1}(0.15) = 8.53^{\circ}$$

$$d = \frac{1m}{\tan 8.53^{\circ}} - 1m = 5.6m$$

Only 4 station is fired

Two neutron separation efficiency

Separation efficiency : # of correctly separated events/(number of events – no remained signal ev



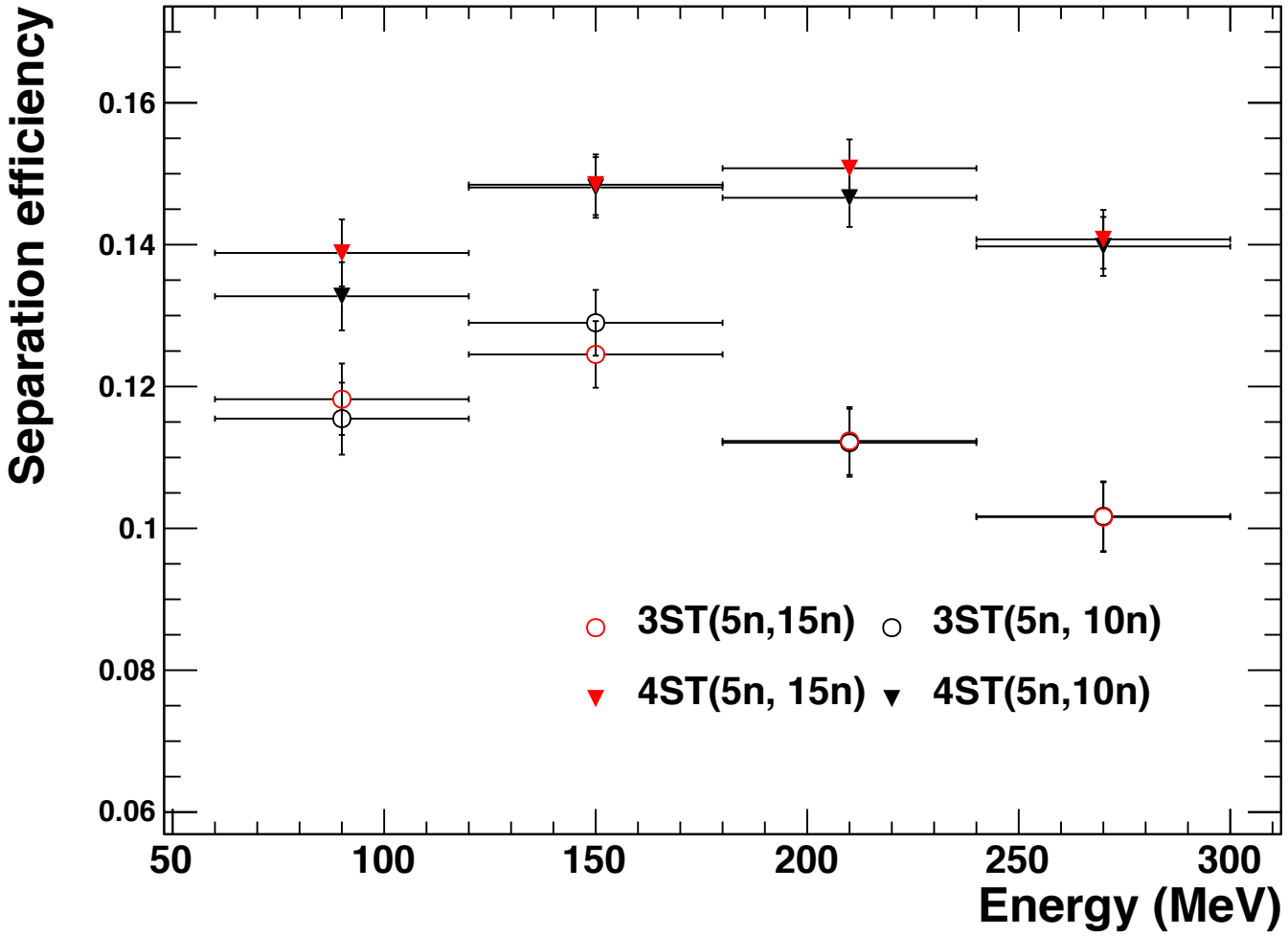
Geo Condition:
- Distance : 10 m
- Station gap : 60 cm

analysis condition:
- Different station : 10, 1
- Same station : 5 ns

4ST case : maximum station difference = 3

3ST case : maximum station difference = 2

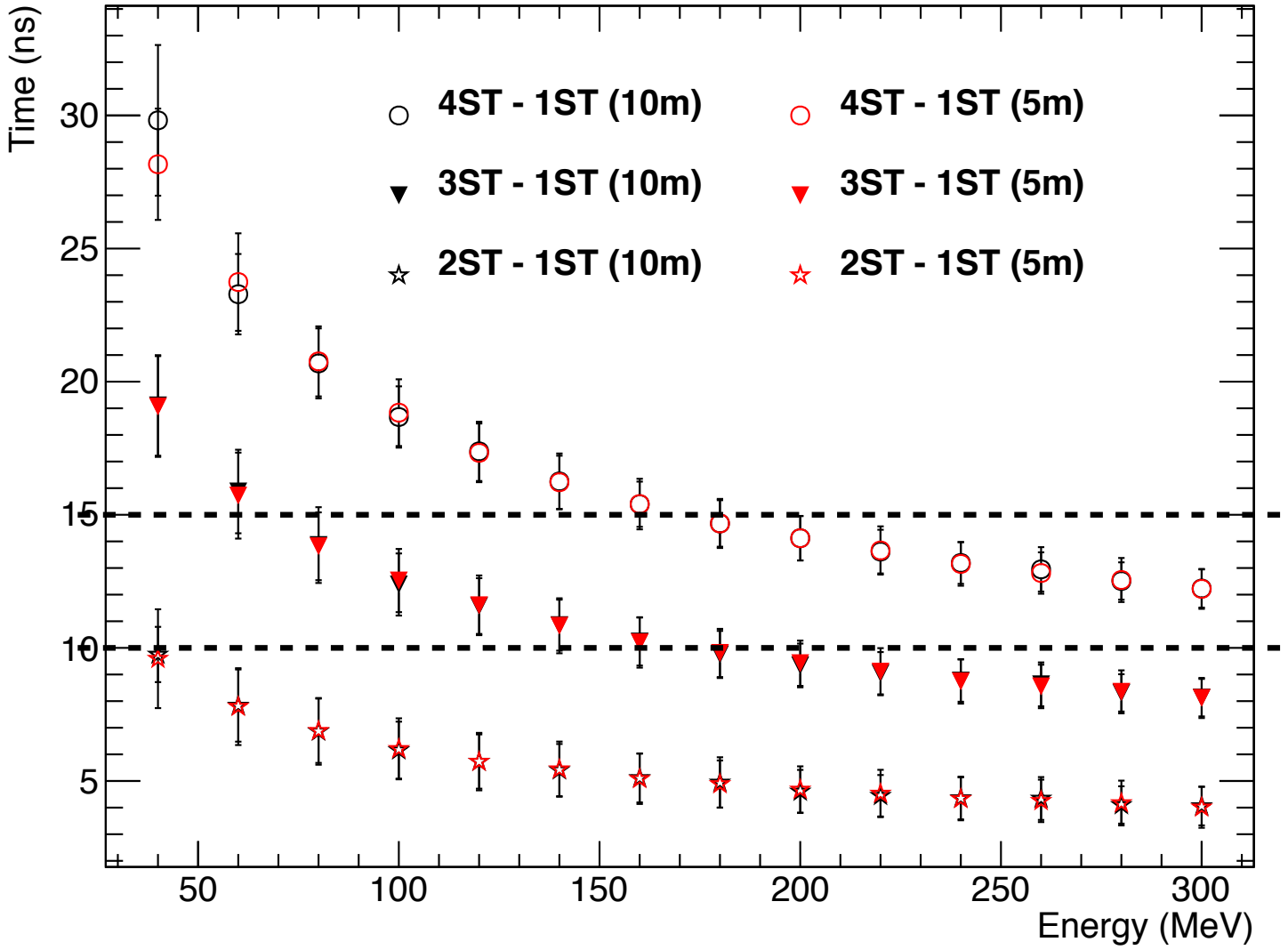
Two neutron separation efficiency

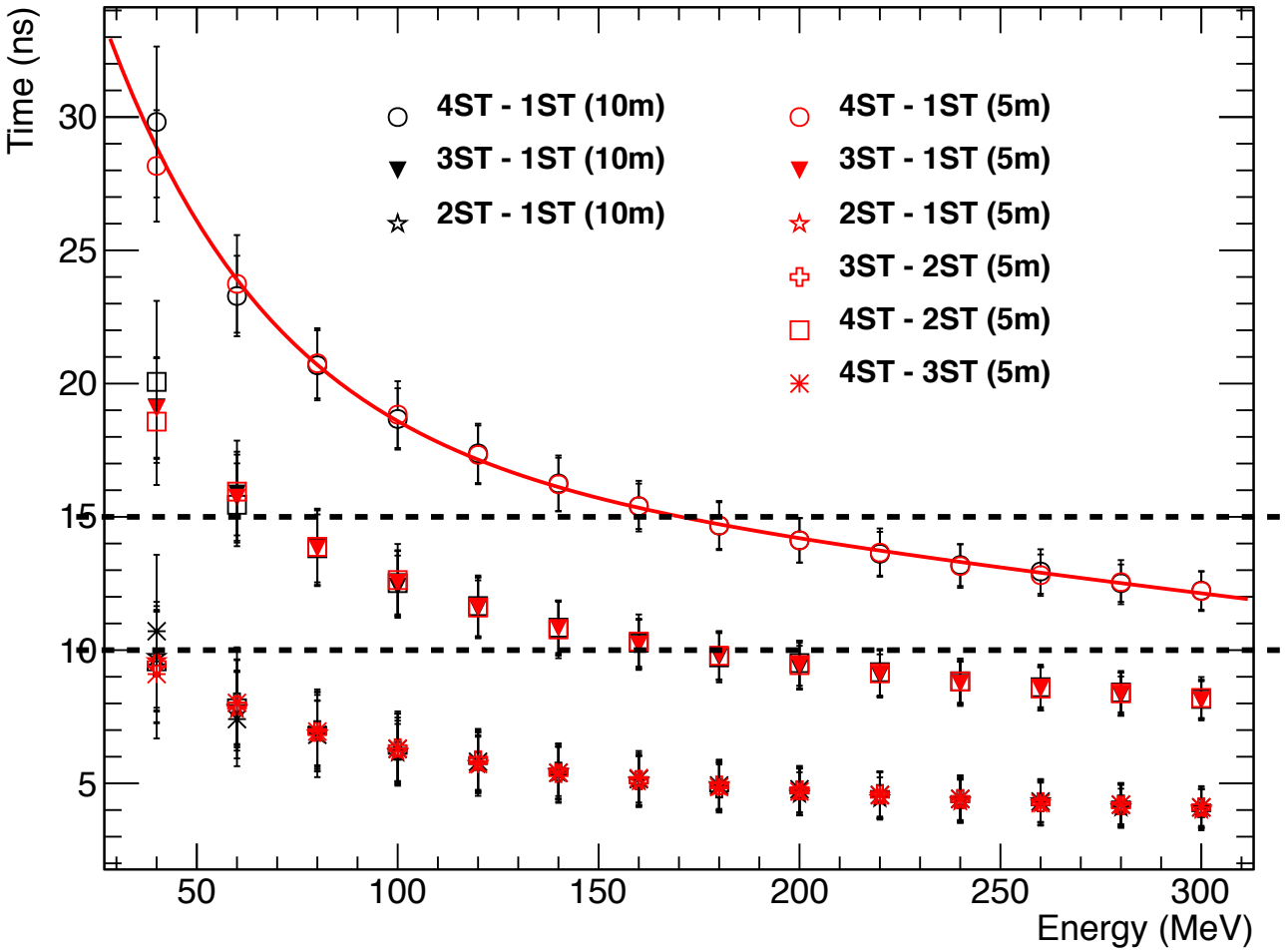


Geo Condition:
- Distance : 5 m
- Station gap : 60 cm

analysis condition:
- Different station : 10, 1
- Same station : 5 ns

Time difference by station difference





Plan : not use exact value(10ns, 15ns) at different station time condition

---→ use different time value by energy(fitting function)