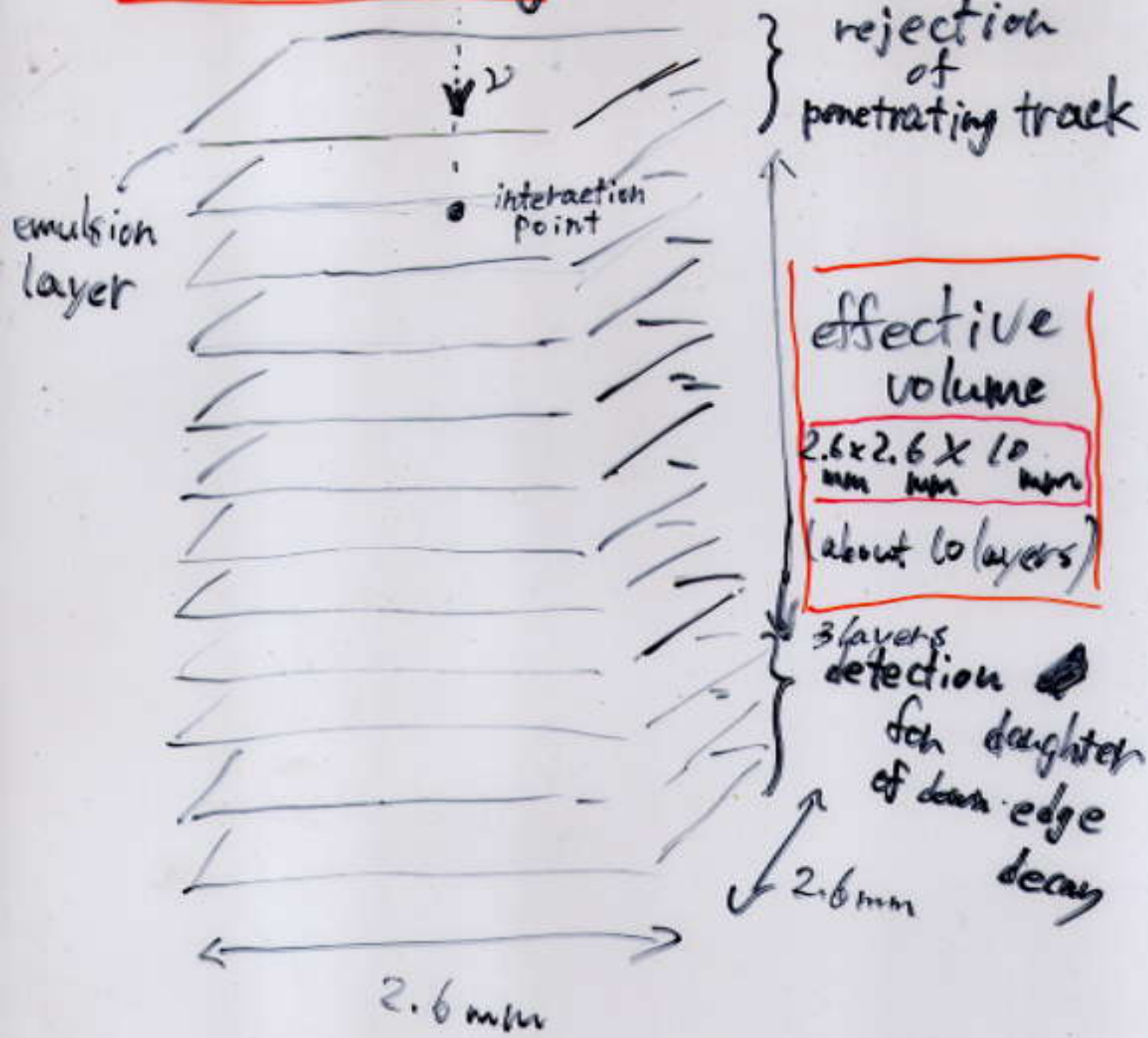
Decay search status

Finished			417
Going on	~~132~~ 164	NSB	107
		Furukawa method	[redacted] Morishima method 3
		Netscan	8 5/46
Total			~~549~~ 581

date taking 105/115

Decay search

1) Data taking



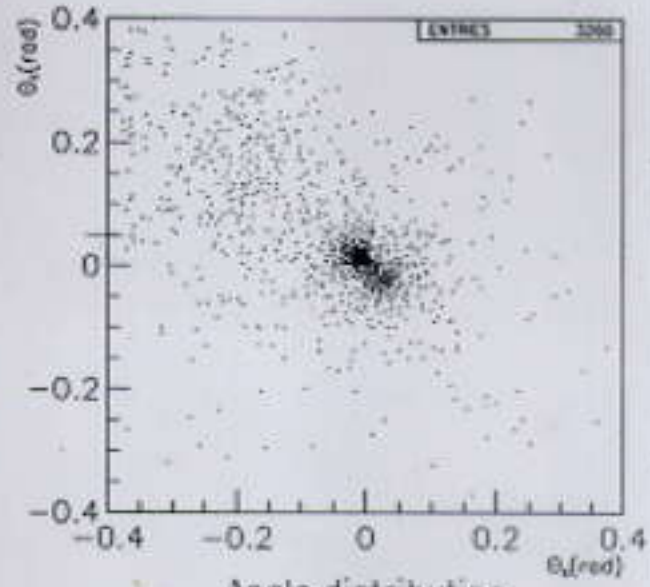
115 events — finished: 105
— not yet: 10

Track Segment DATA

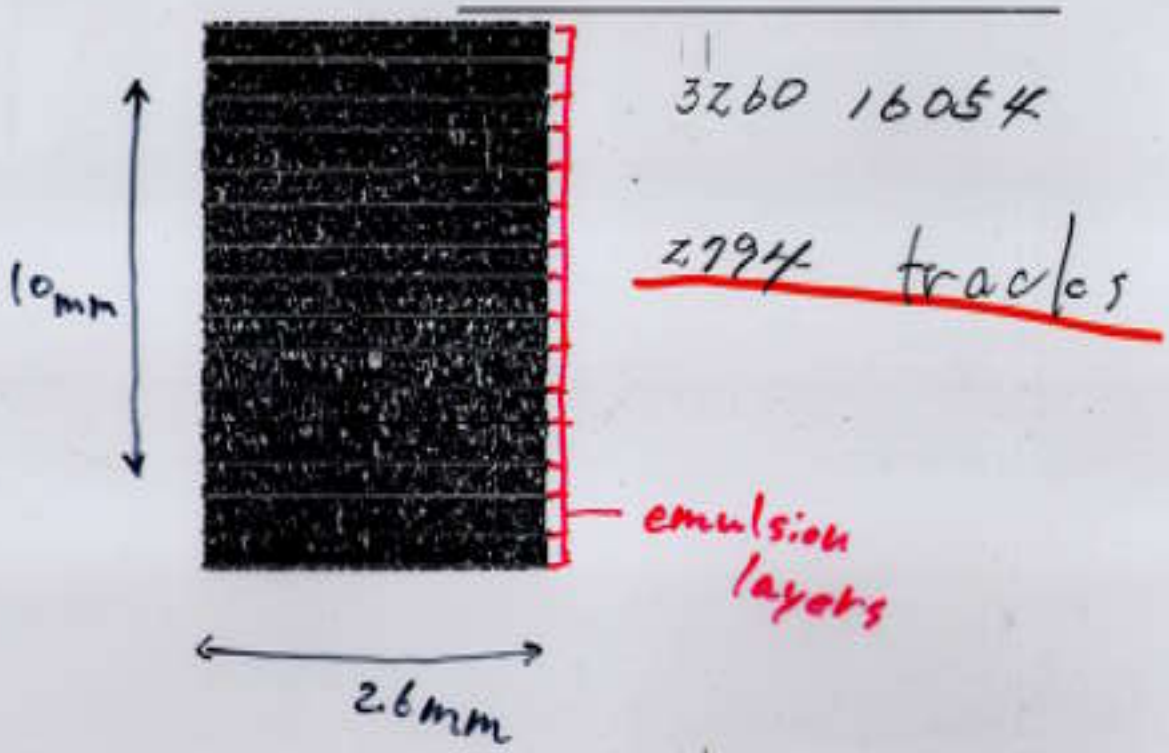
EXP. = e872
RUN = 3260
EVENT = 16054
MOD = 2
plate = 44−2
emulsion type
unknown

Scanned area(mm²)=(2.6,2.6)
Number of Track = 3260
STAGE ID = 0
DATE =

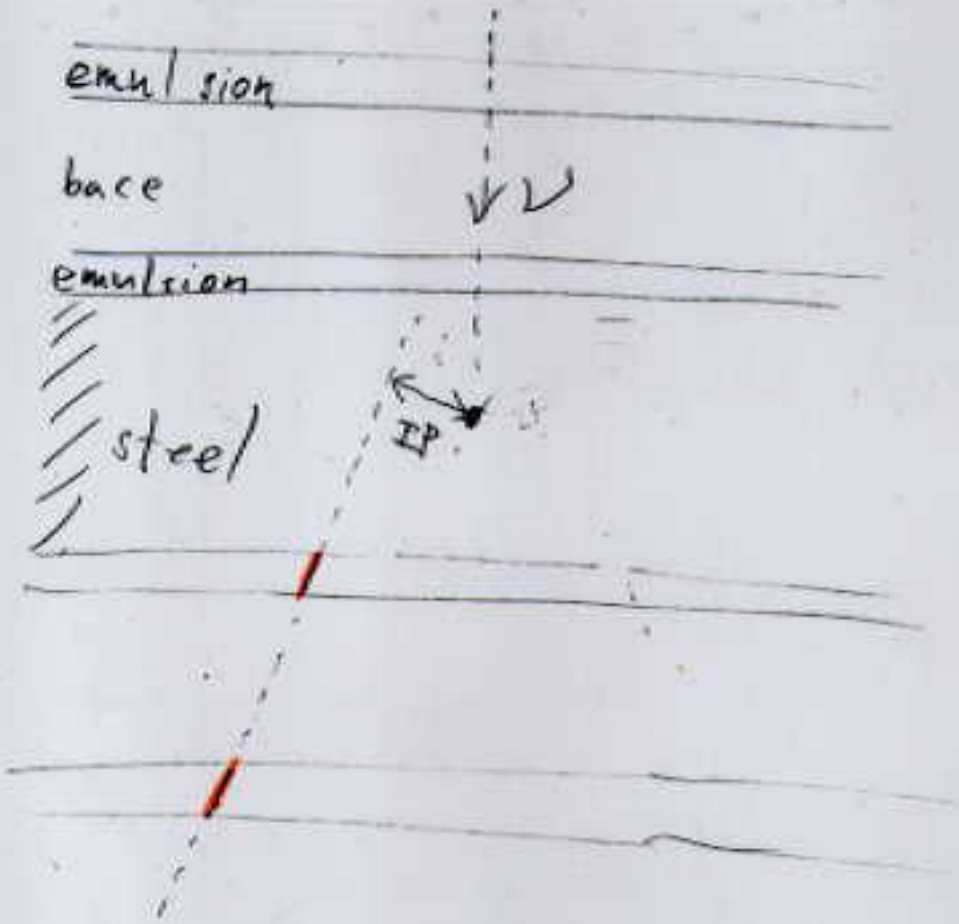
3260 tracks



Angle distribution


3260 16054
2794 tracks
10mm
emulsion layers
2.6mm

selection of tracks from 1ry vtx

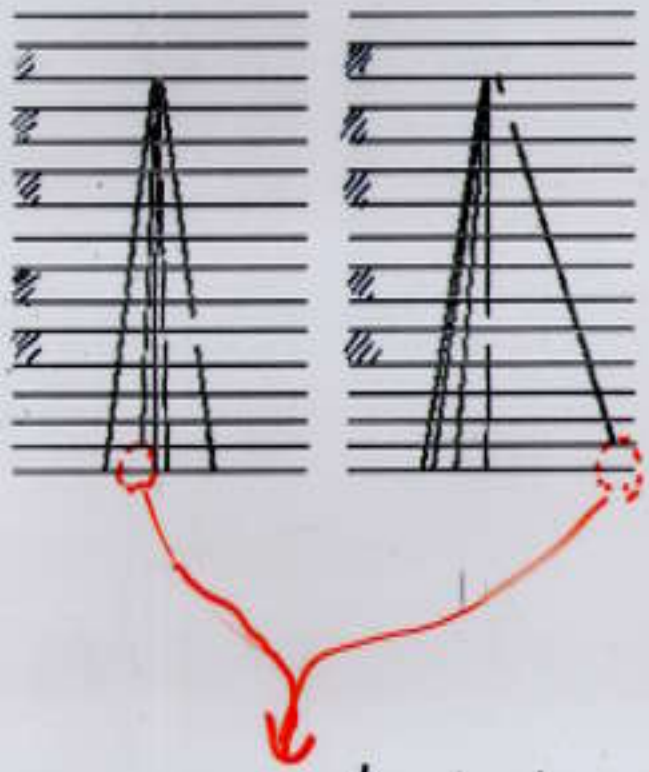


IP ≤ 5 μm

tried events : 14

selected 1ry tracks : 52

3242 10131

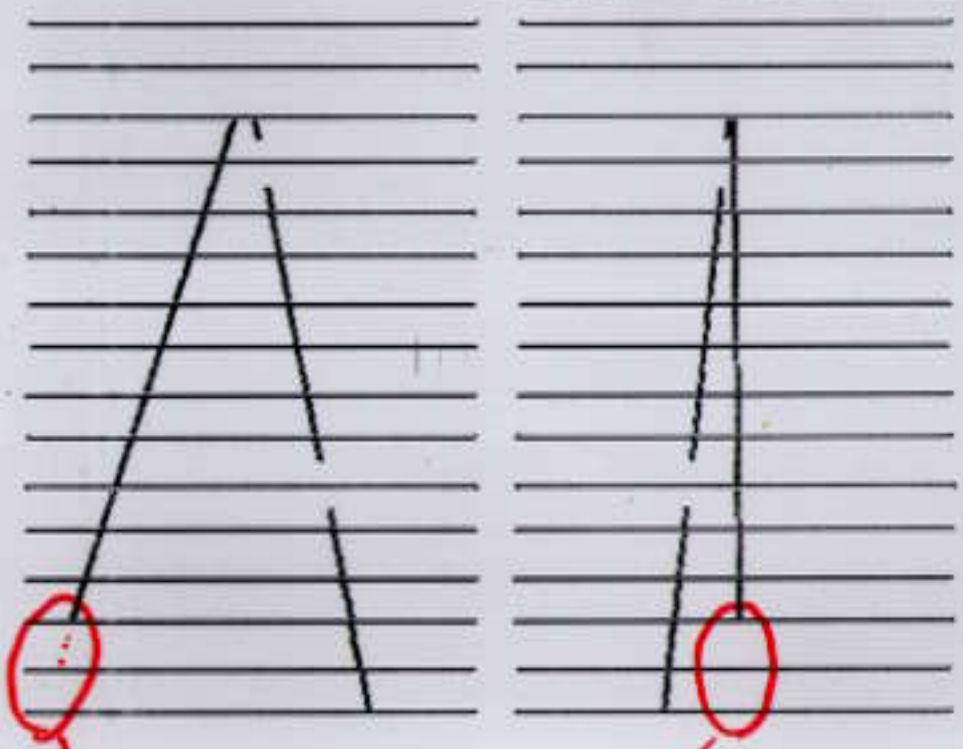


manual check

↓

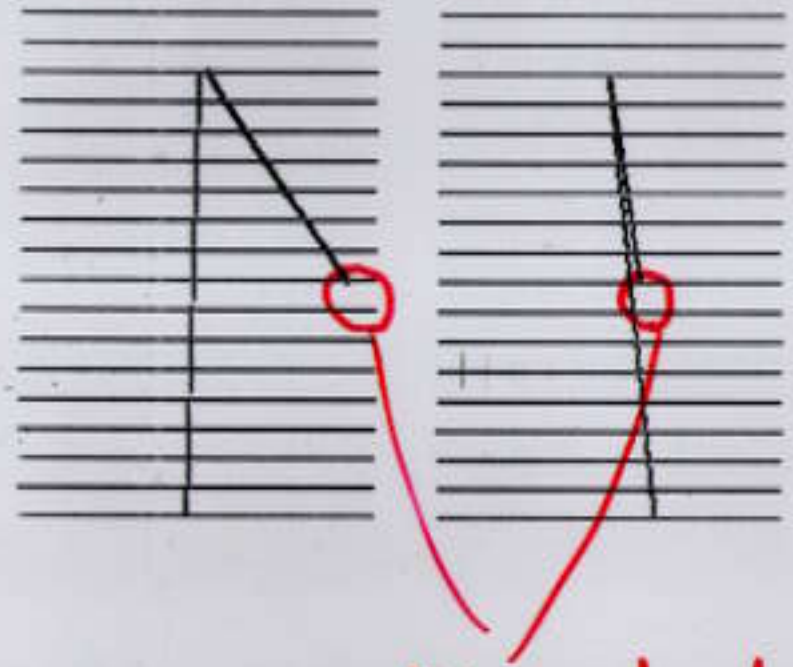
exist track

3072 14109



manual check
exist track

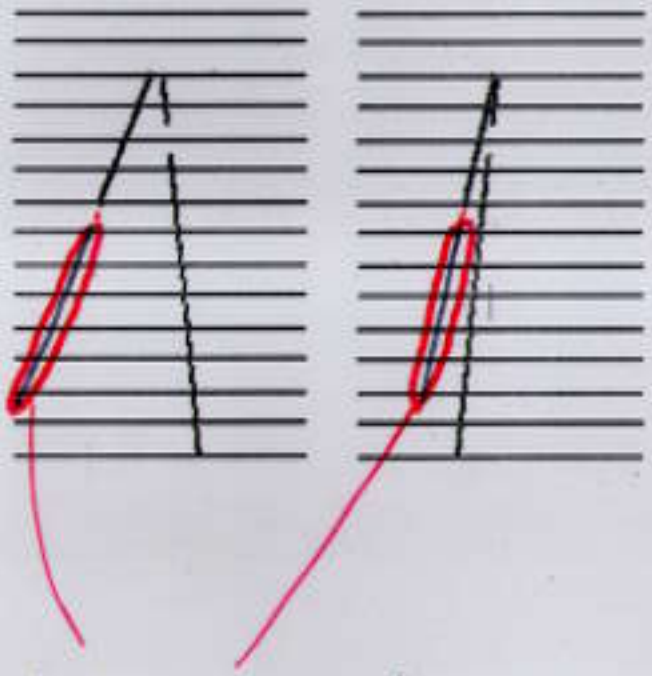
2263 013017



manual check

exist track

3281 08620



re-connect

by using 3DViewer

3376 08970

re-connect
by using 3D Viewer

3338 1498/

re-connect
by using 3D Viewer

manual check
↓
exist track

①
②
①
②
out of volume

3040 01558

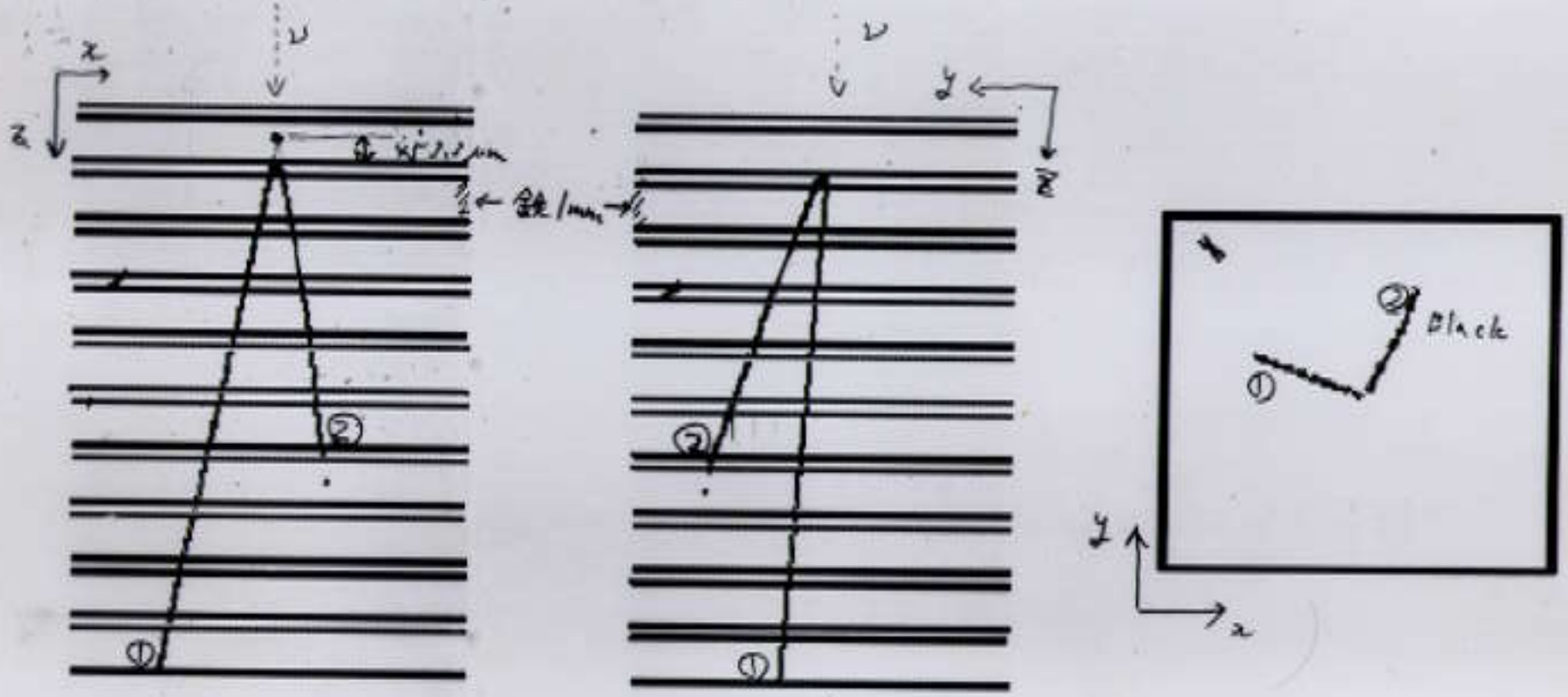
Viewer check

manual check

↓

Black

3050 - 01558 mod 3 (ECC 200)



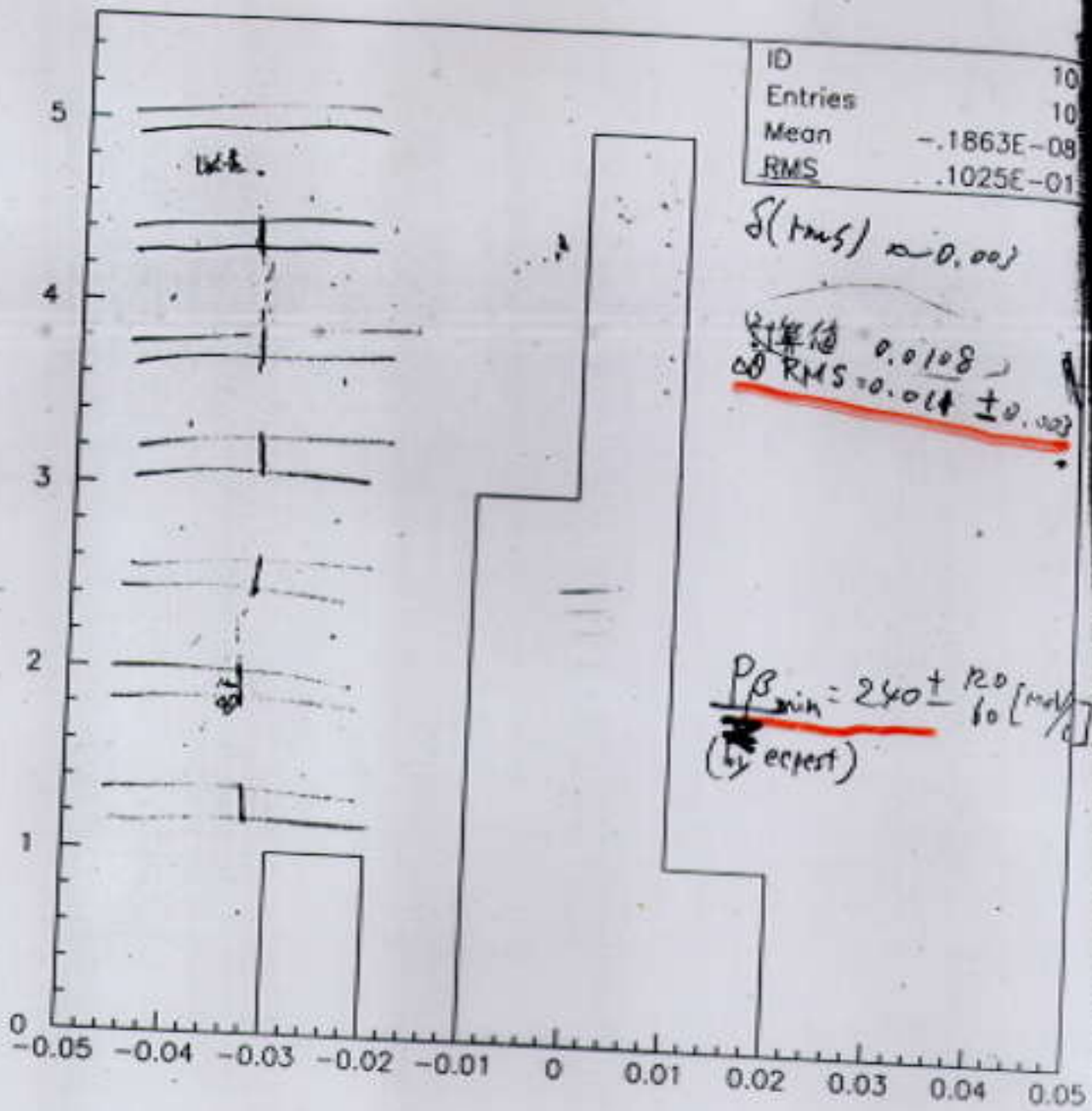
①Found 1 trk for selected seg 201 1940 110034 -0.0629 0.0203 80971.6 92079.5 604186.0 : itk=3415 111 4806 -> 201 1940 (19)
Black ②Found 1 trk for selected seg 201 1808 1501170.0503 0.1216 81020.3 92122.6 604186.0 : itk=51417 192 3069 -> 201 1808 (4)

counter information

① は μ の可能性あり

Black track 情報

F.L. = 8/85.4 μm (鉄 6[mm] 7.87[g/cm³]
乳剤 1[mm] 3.75[g/cm³]
base 1[mm] 1.06[g/cm³])


ID 10
Entries 10
Mean -.1863E-08
RMS .1025E-01
δ(rms) ≈ 0.003
計算値 0.0108
∞ RMS = 0.014 ± 0.003
Pβ min = 240 ± 120 60 [MeV/c]
(by eqpest)
5
4
3
2
1
0
-0.05 -0.04 -0.03 -0.02 -0.01 0 0.01 0.02 0.03 0.04 0.05

Range から Energy を見積る

(線者は止まった位置の不定性から見つもった)

Proton

$E = 62 \pm 3\,[\mathrm{MeV}] \rightarrow p\beta = \frac{2E}{c} = 124 \pm 6\,[\mathrm{MeV}/c]$

$\left(= \sqrt{0.2070\, z^2 mc^2 x}\right)$

$\Delta\theta_{RMS} = \frac{13.6\,\mathrm{MeV}}{p\beta} z \sqrt{\frac{x}{X_0}} = 0.026 \pm 0.00$

$0.0568 = 0.2284$

Dueteron

$E = 87 \pm 4\,[\mathrm{MeV}] \rightarrow p\beta = 174 \pm 8\,[\mathrm{MeV}/c]$

$\Delta\theta_{RMS} = 0.0186 \pm 0.0010$

Triton

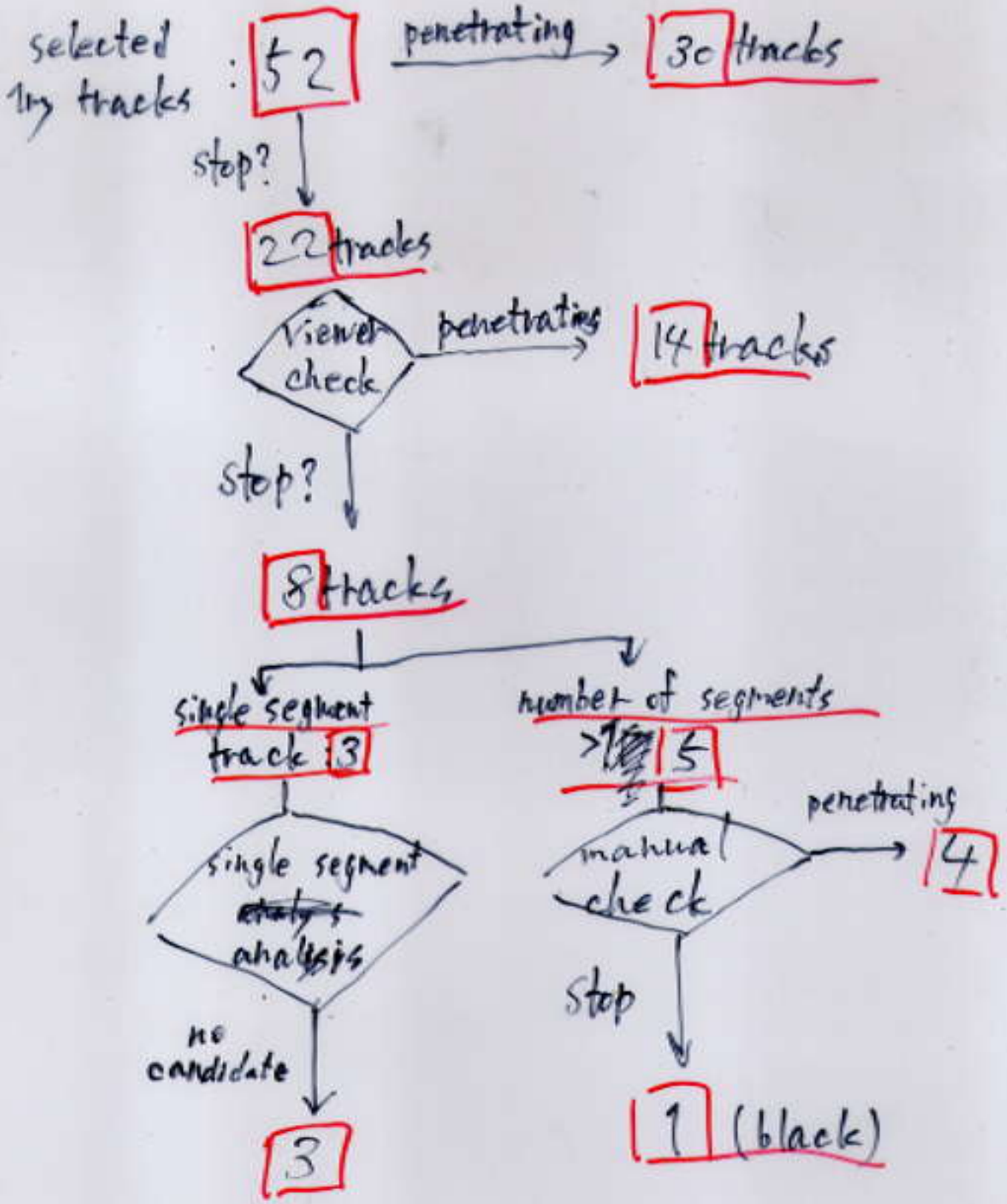
$E = 107 \pm 5\,[\mathrm{MeV}] \rightarrow p\beta = 214 \pm 10\,[\mathrm{MeV}/c]$

$\Delta\theta_{RMS} = 0.0152 \pm 0.0007$

α

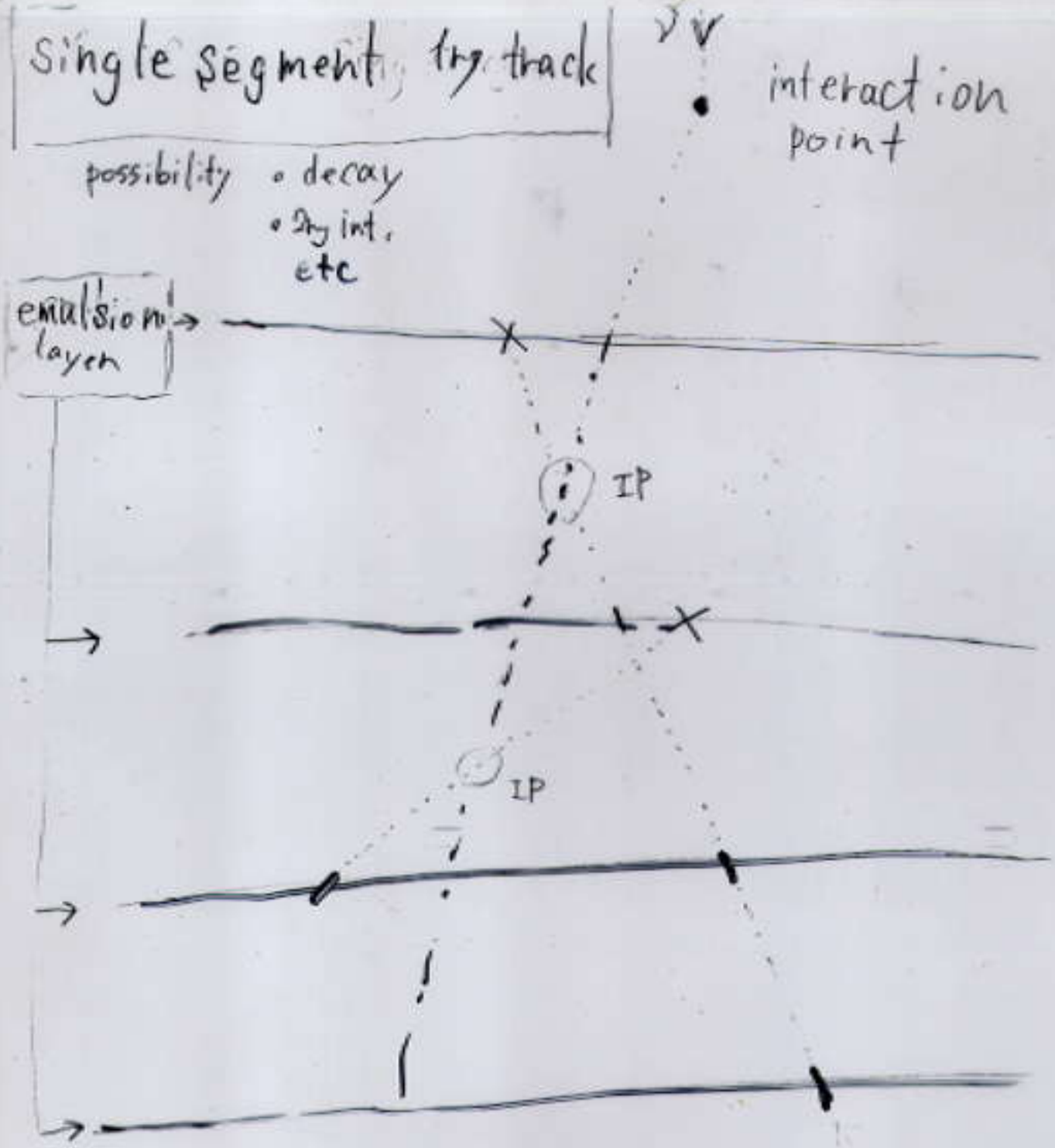
$E = 247 \pm 12\,[\mathrm{MeV}] \rightarrow p\beta = 494 \pm 24\,[\mathrm{MeV}/c]$

$\Delta\theta_{RMS} = 0.0131 \pm 0.0006$


selected tracks : 52
penetrating
30 tracks
stop?
22 tracks
viewer check
penetrating
14 tracks
stop?
8 tracks
single segment track : 3
number of segments > 5
single segment analysis
no candidate
3
manual check
penetrating
4
stop
1 (black)

Single segment, try track

possibility
- decay
- 2ry int.
- etc



- 1 and 2 layer downstream track
- IP < 30 μm and segment numbers > 1

summary

- Clear kink trk is nothing.
  (Large angle) (52 trks)
- re-connected 14 tracks using 3D Viewer
- checked 5 tracks by my eye.