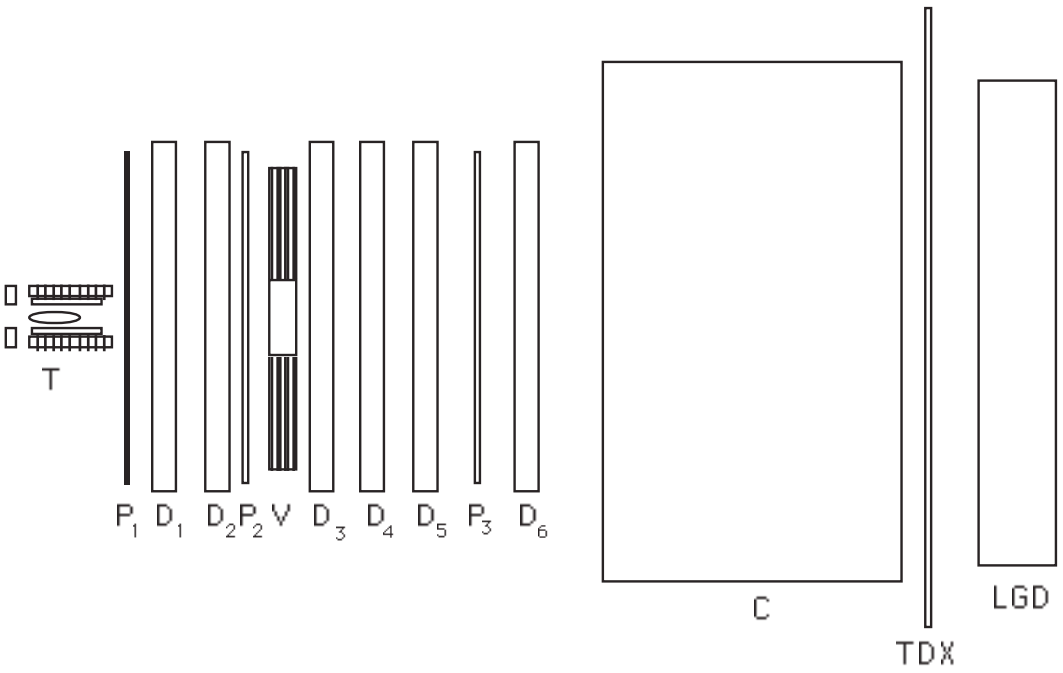
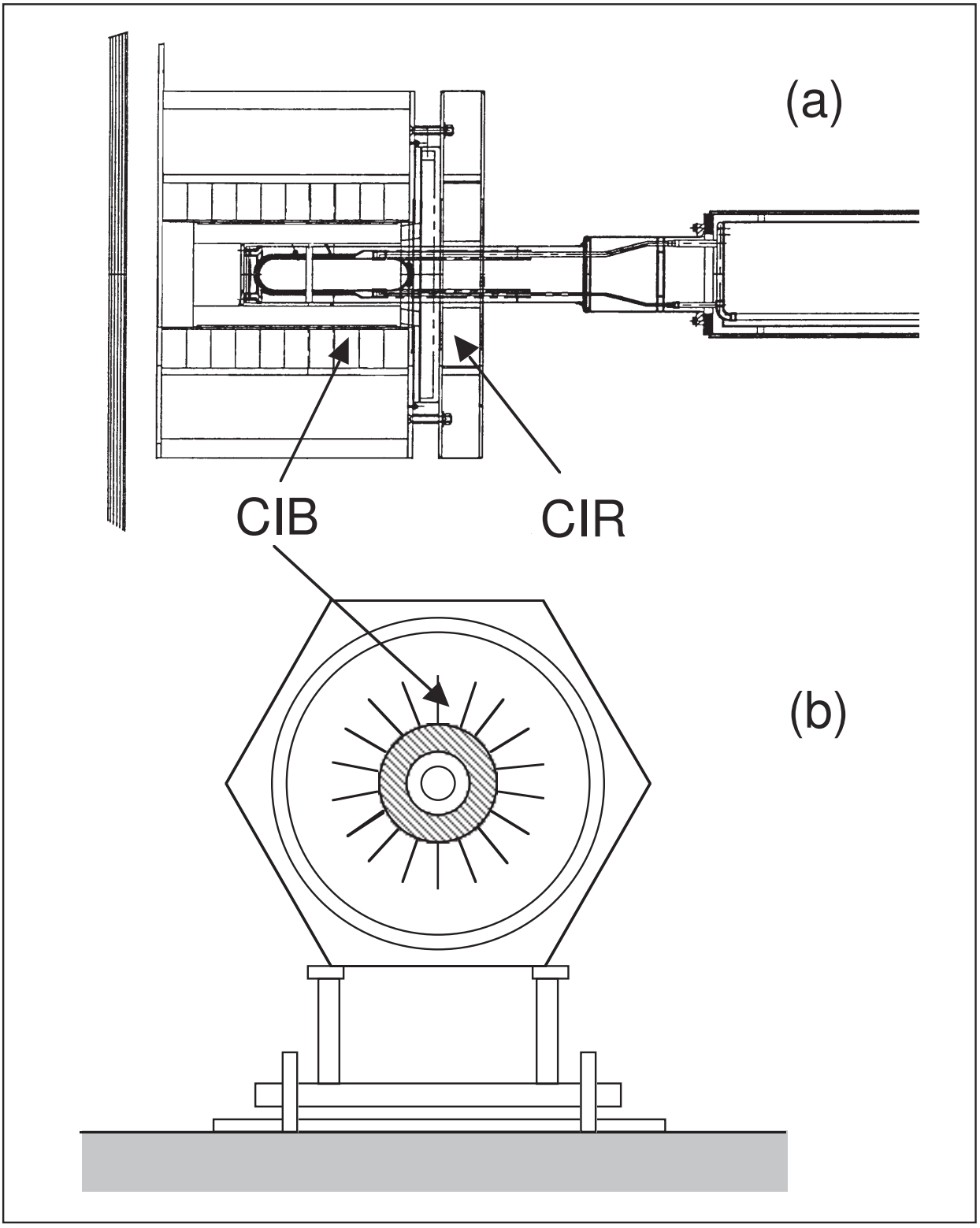
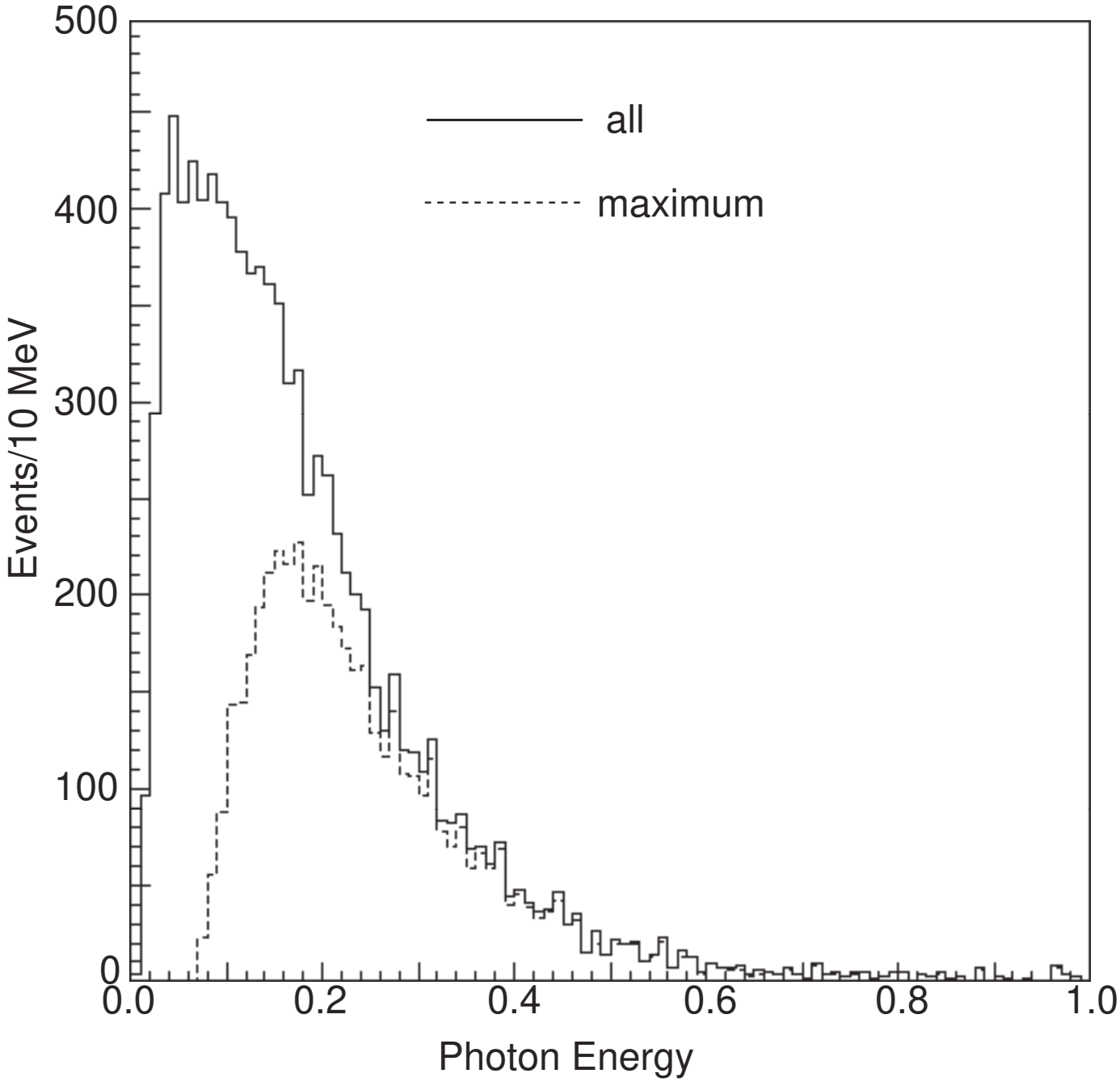
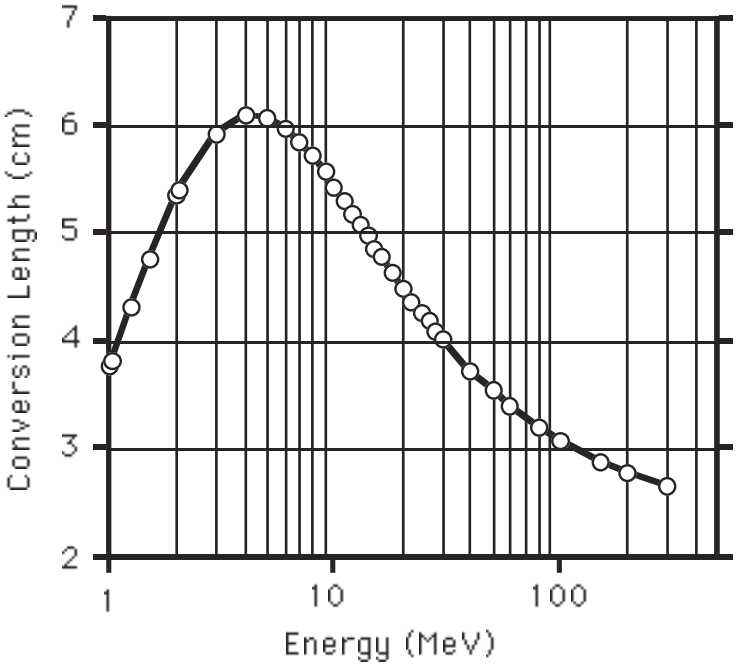

T
P1
D1
D2
P2
V
D3
D4
D5
P3
D6
C
TDX
LGD

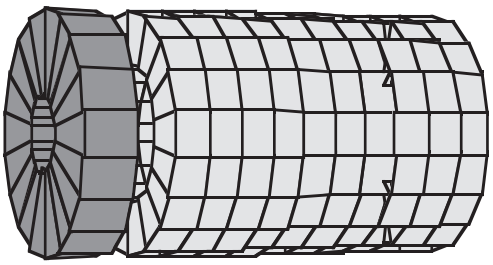

(a)
CIB
CIR
(b)

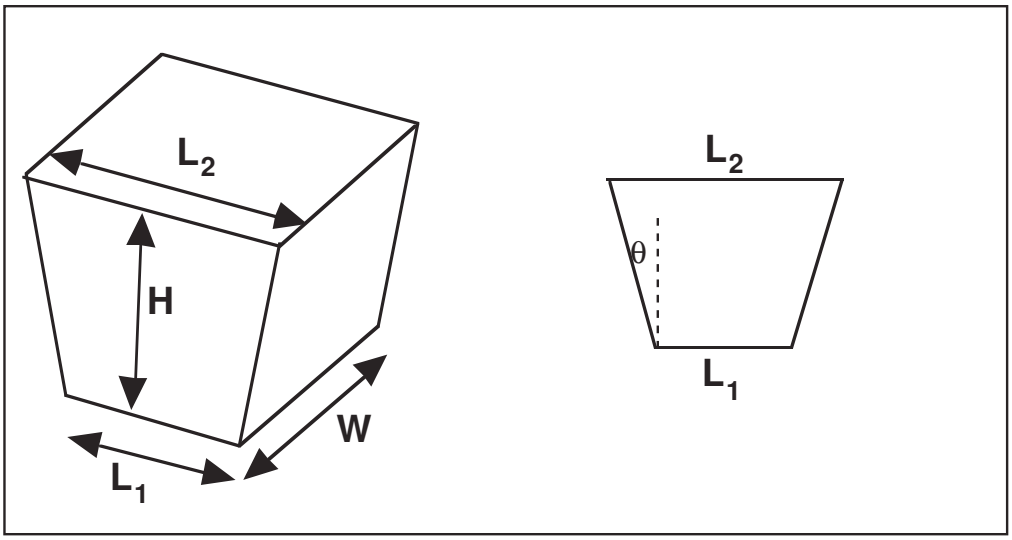


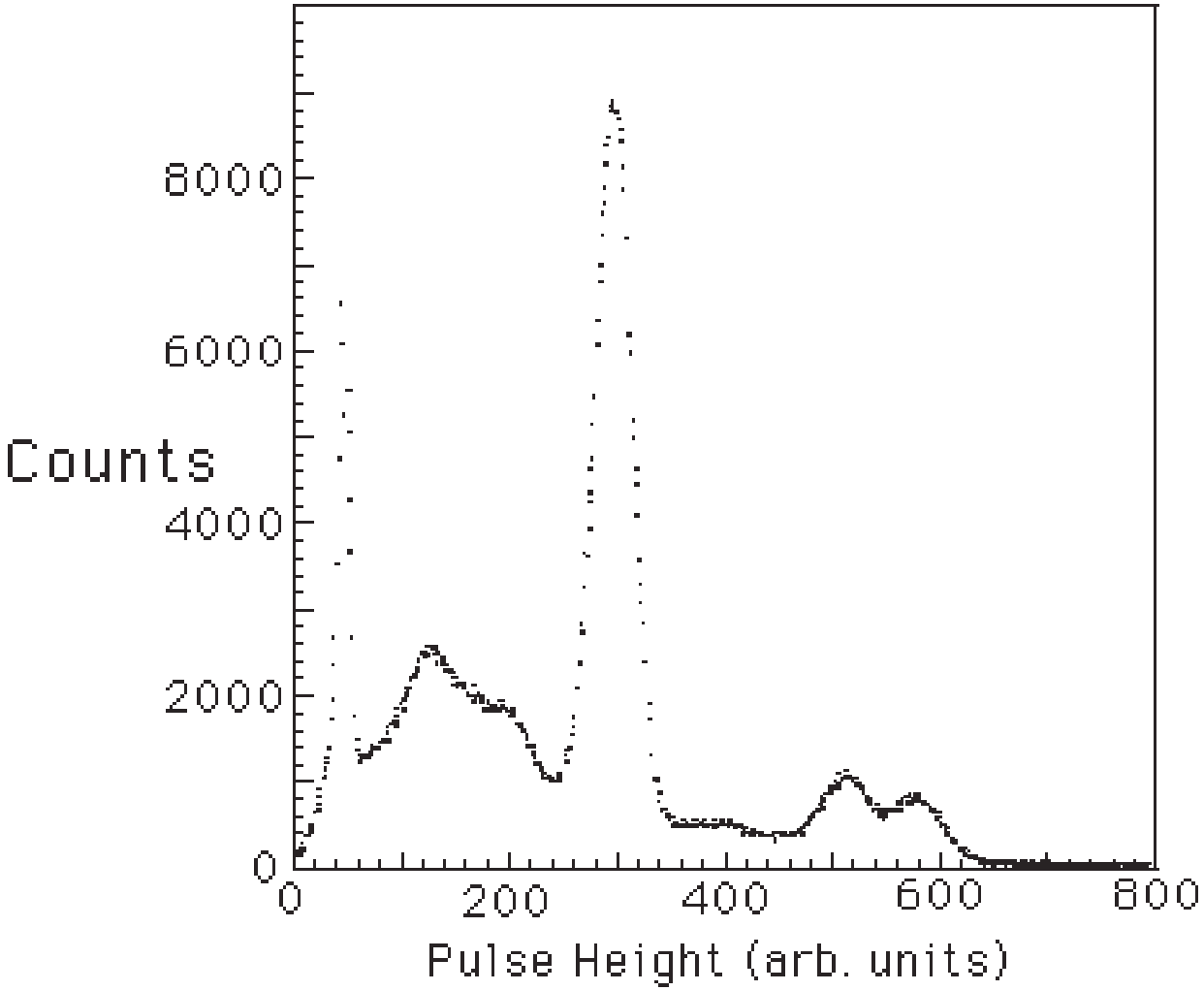
π^0

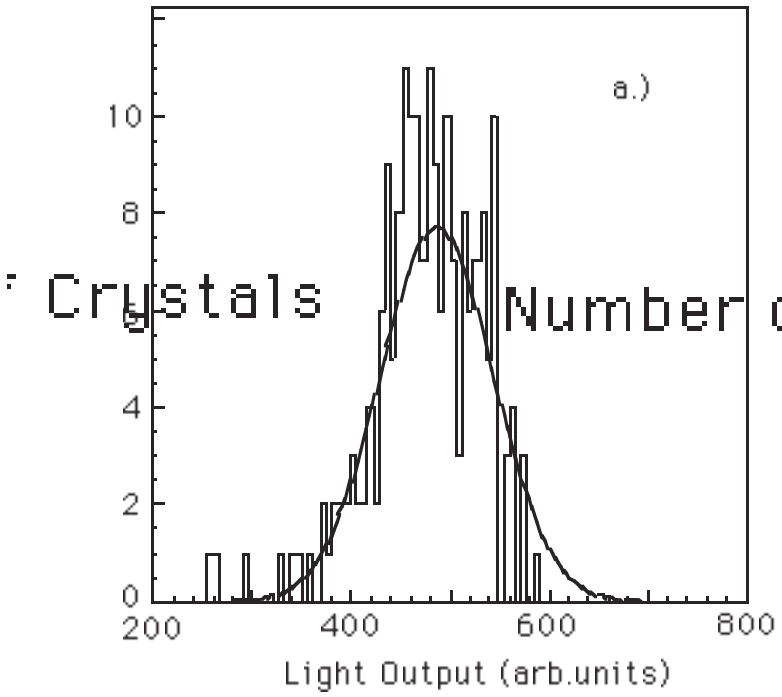
$\pi^- p \to \Delta^0(1236)\, X^0 \to n\pi^0 X^0$

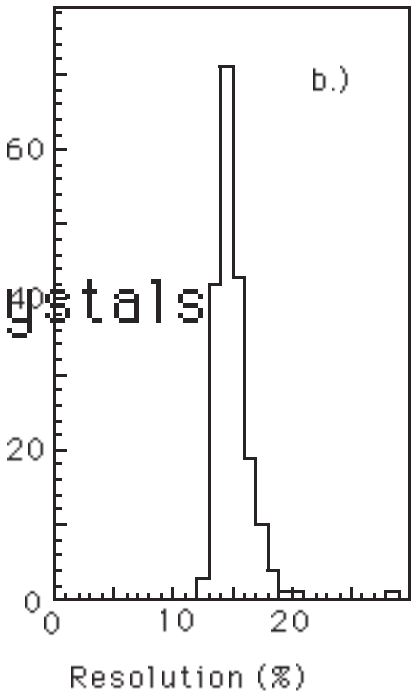

Conversion Length (cm)
7
6
5
4
3
2
1
10
100
Energy (MeV)

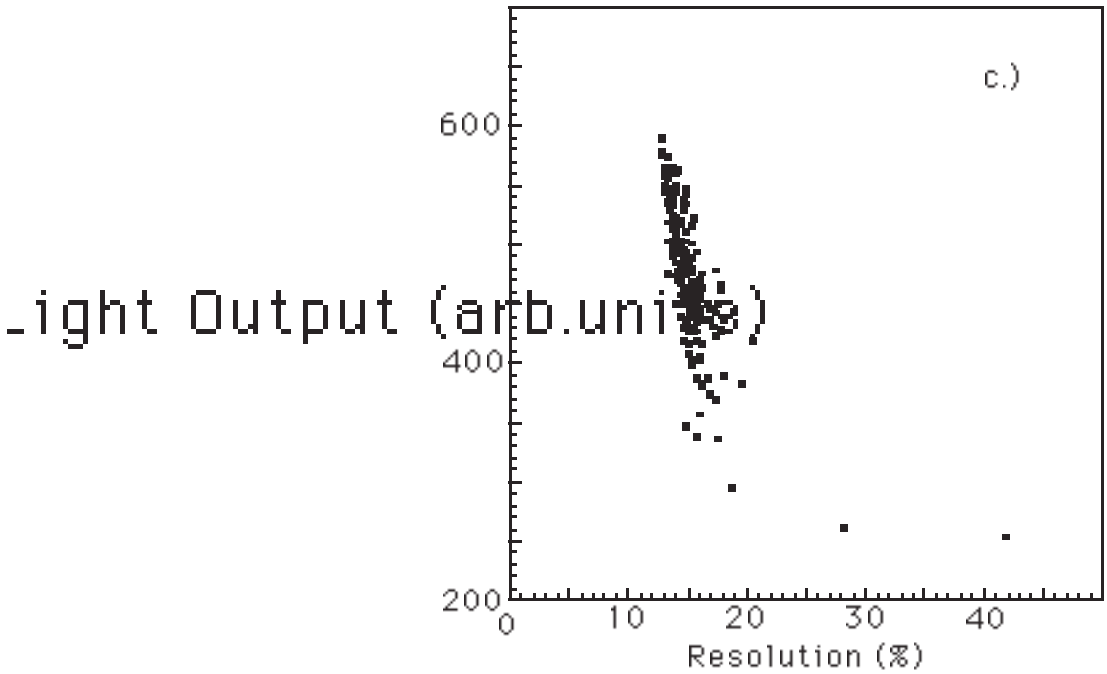



L2
H
W
L1
L2
θ
L1

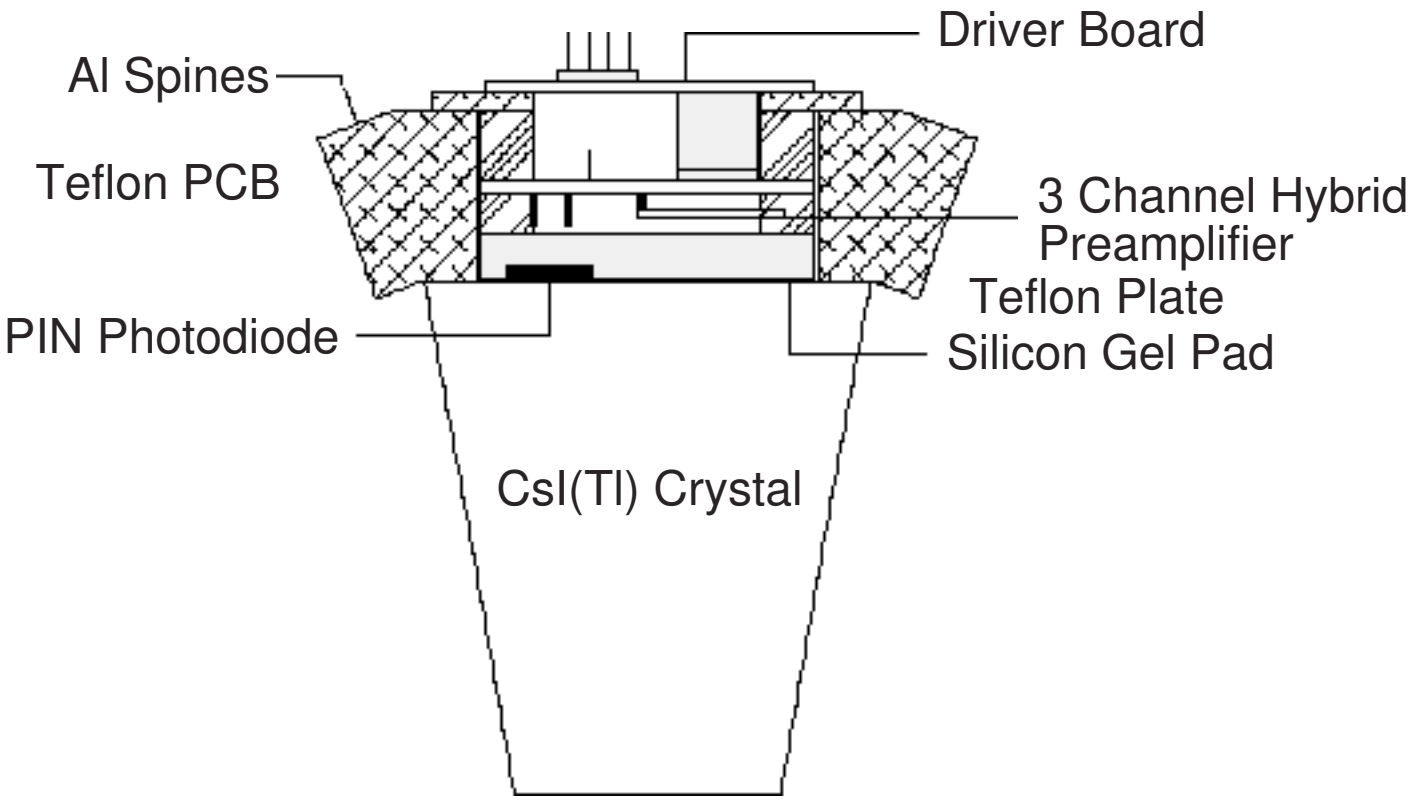

8000
6000
Counts
4000
2000
0
0
200
400
600
800
Pulse Height (arb. units)


a.)
Number of Crystals
Light Output (arb.units)

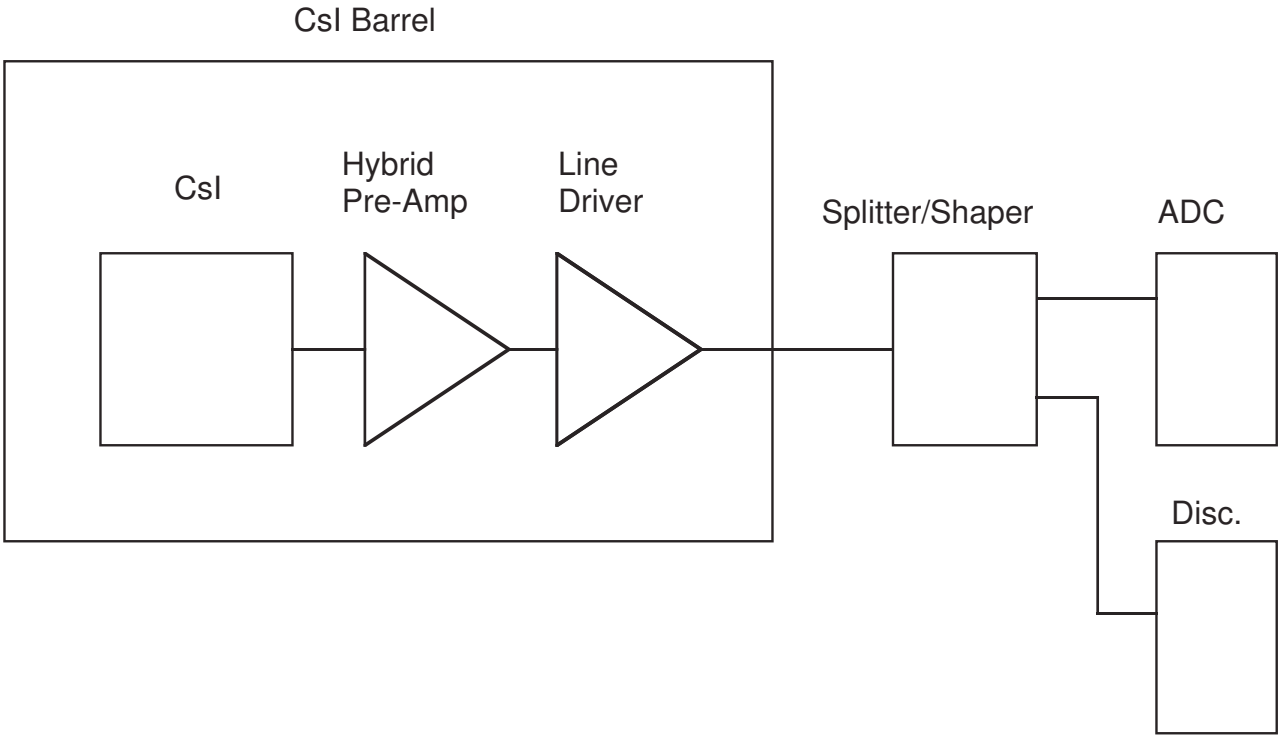

b.)
Number of Crystals
Resolution (%)

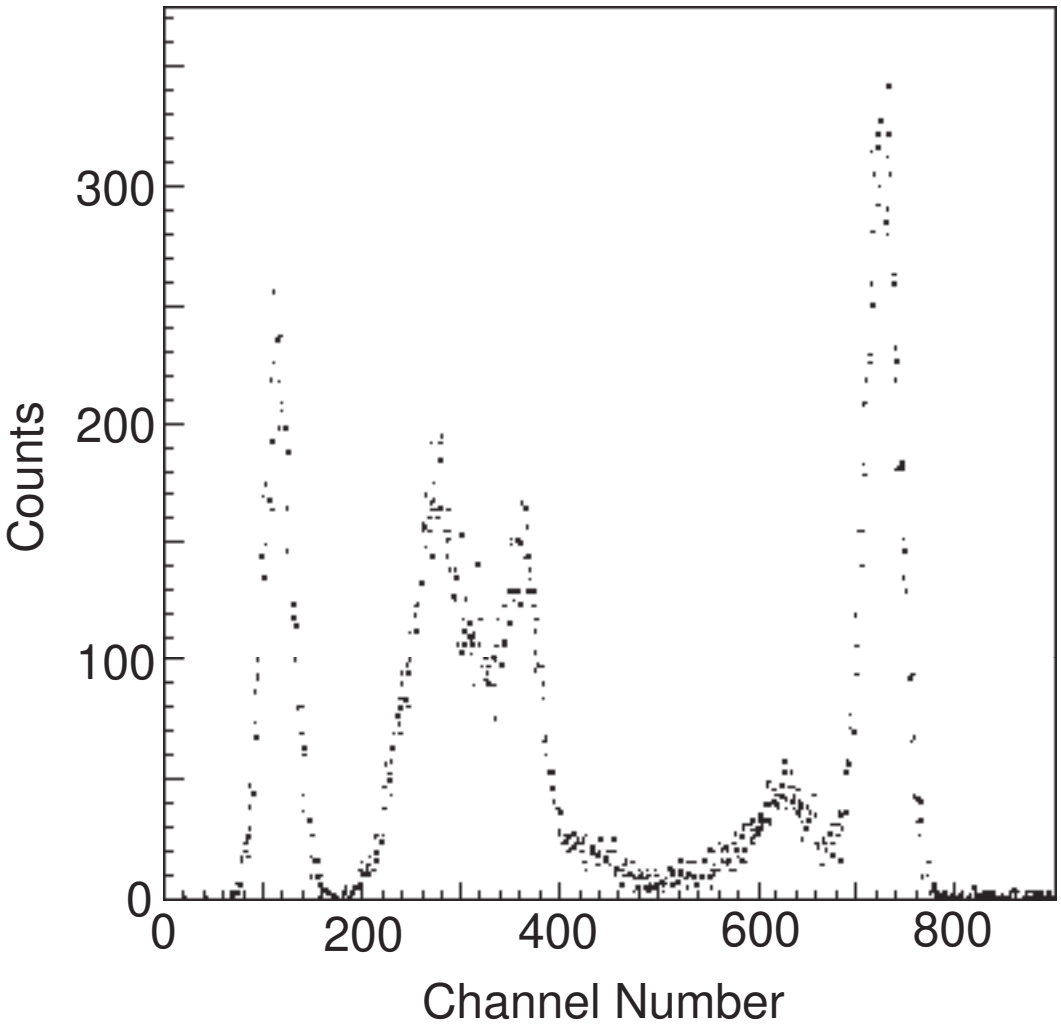

c.)
Light Output (arb.units)
Resolution (%)

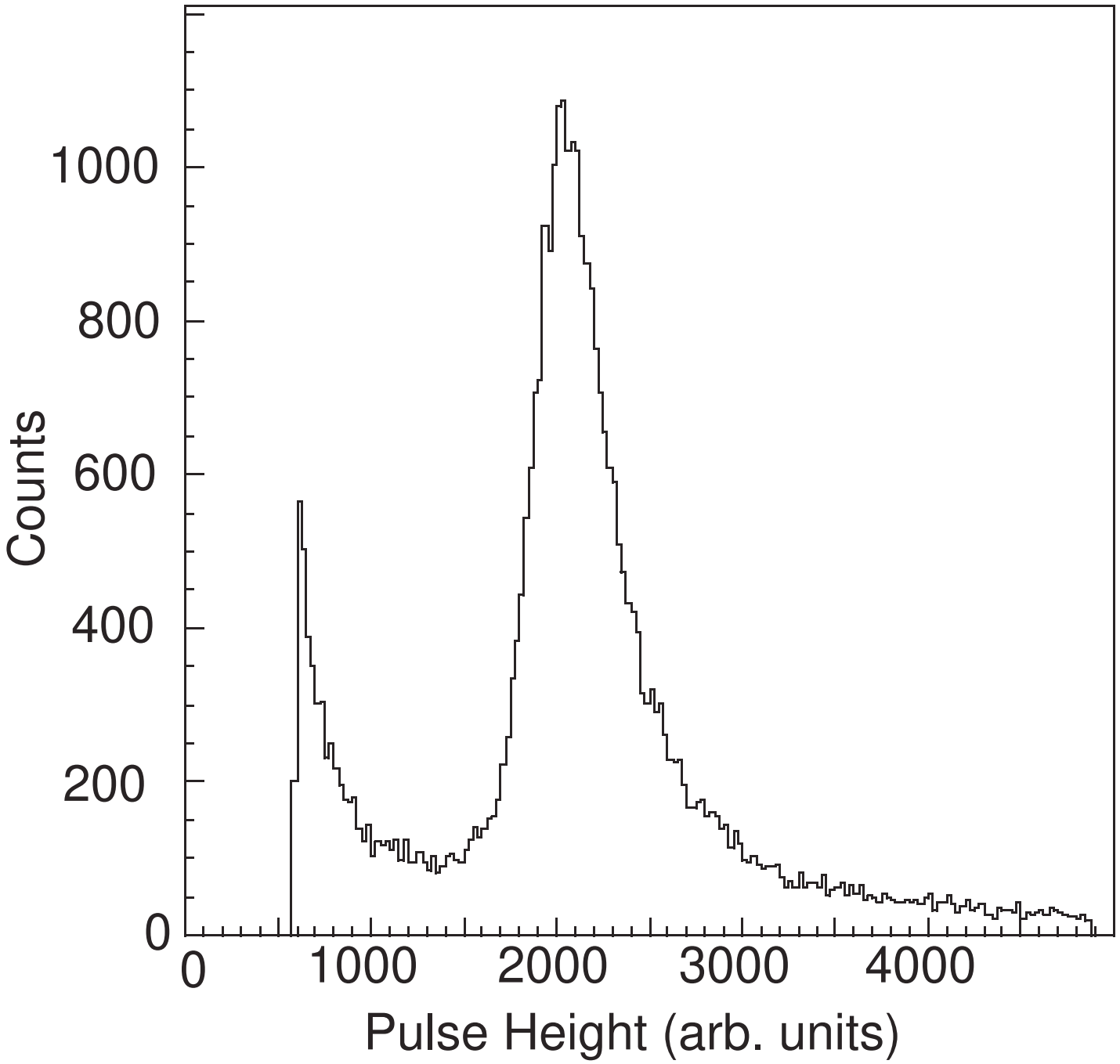
CsI Crystal and Board Assembly (side view)

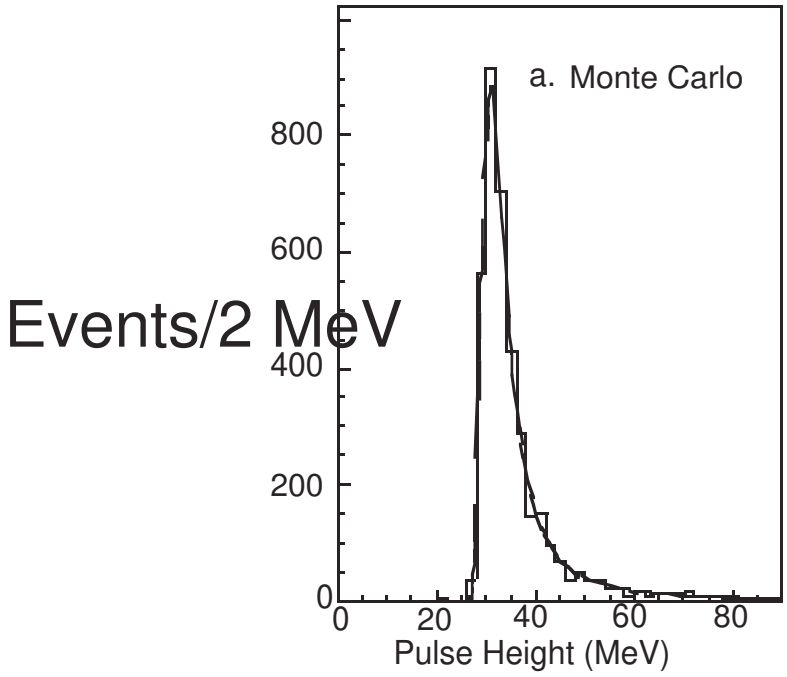


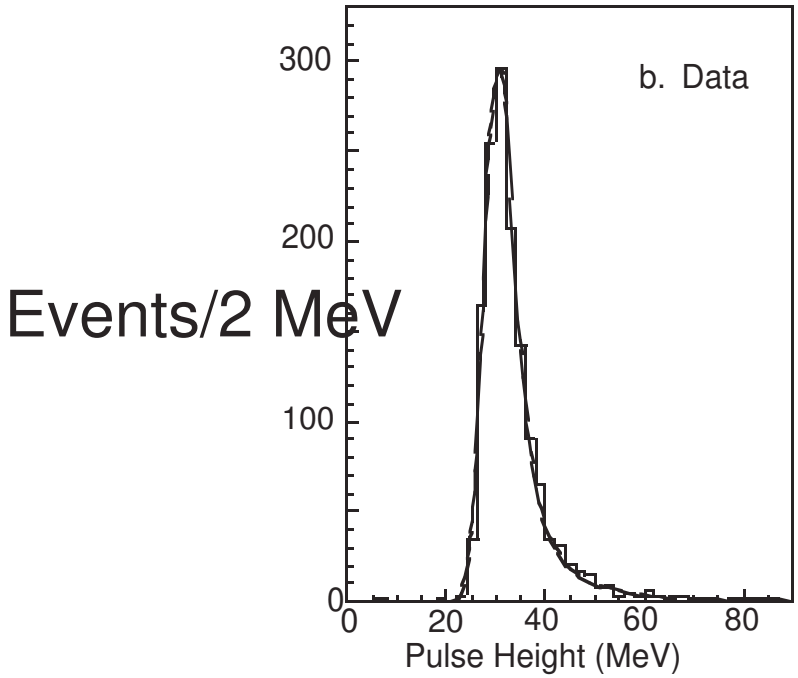
Block Diagram of CsI Electronics

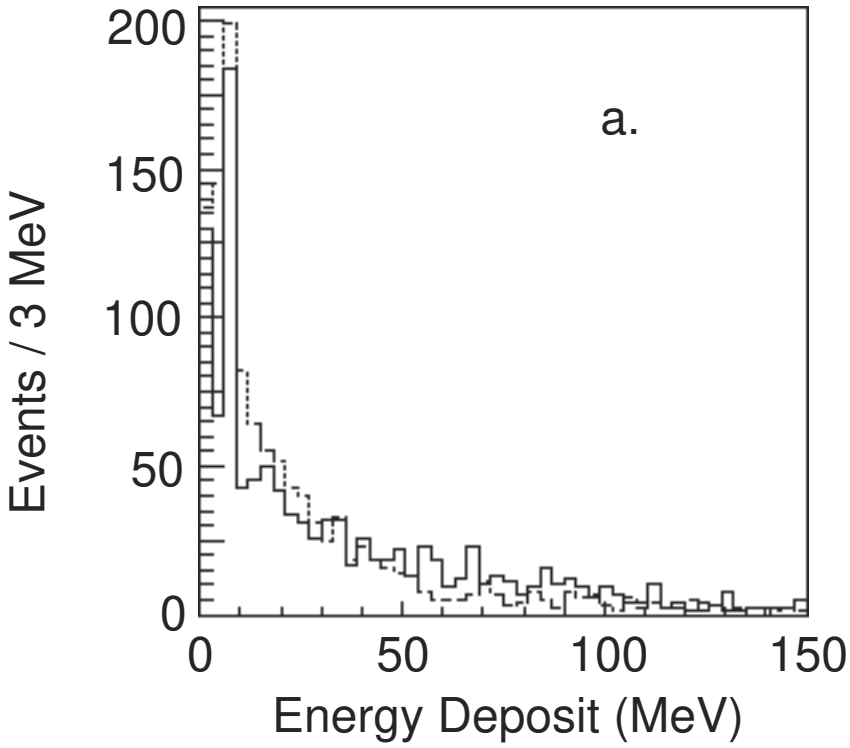


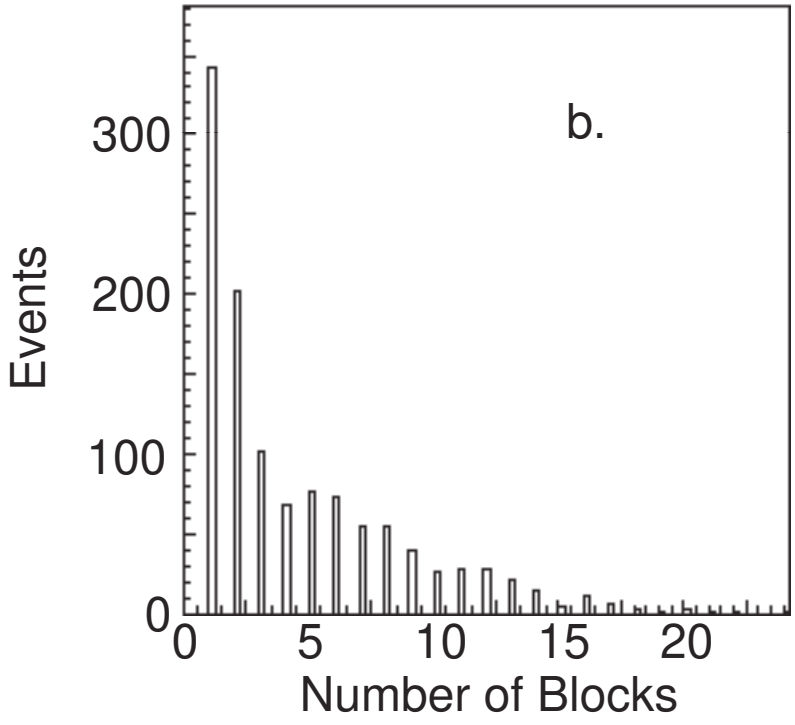

Counts
300
200
100
0
0
200
400
600
800
Channel Number

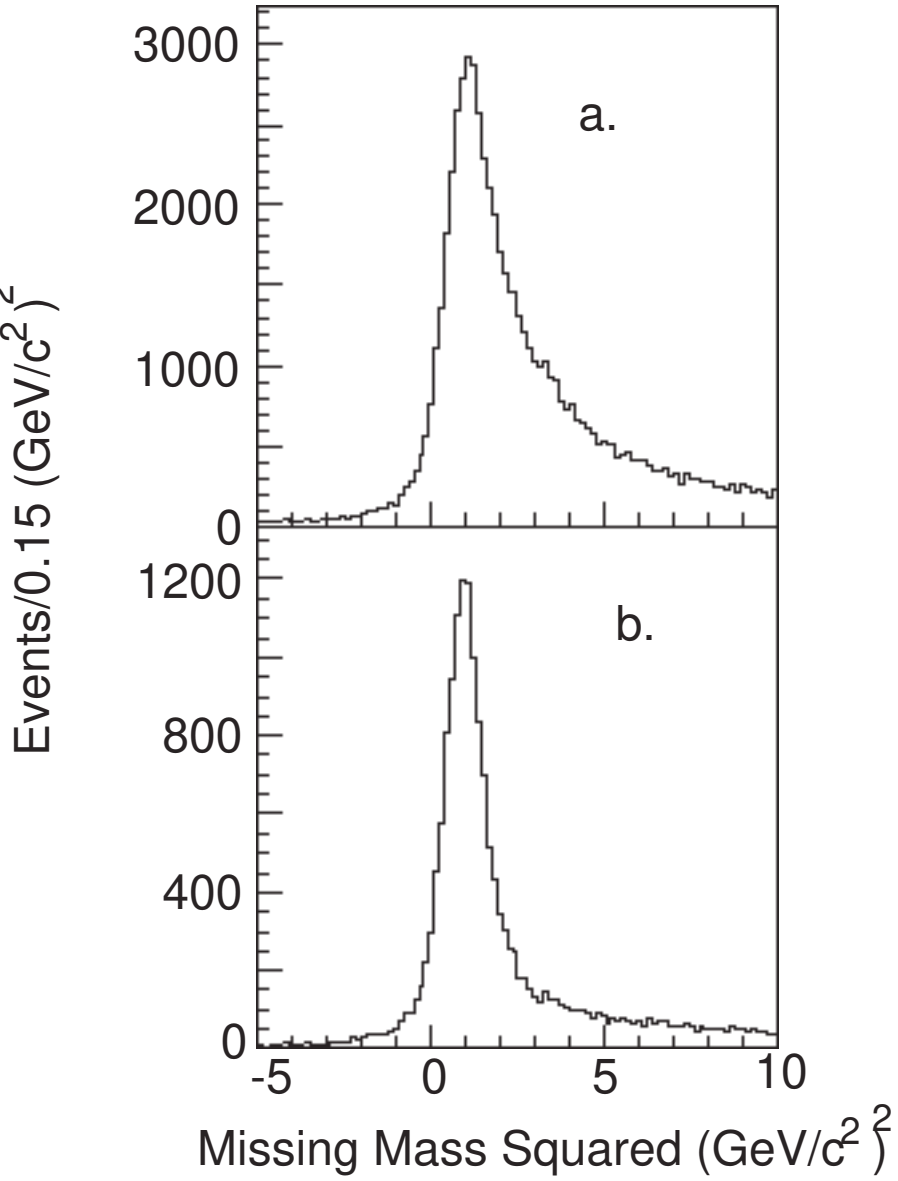

Counts
1000
800
600
400
200
0
0
1000
2000
3000
4000
Pulse Height (arb. units)

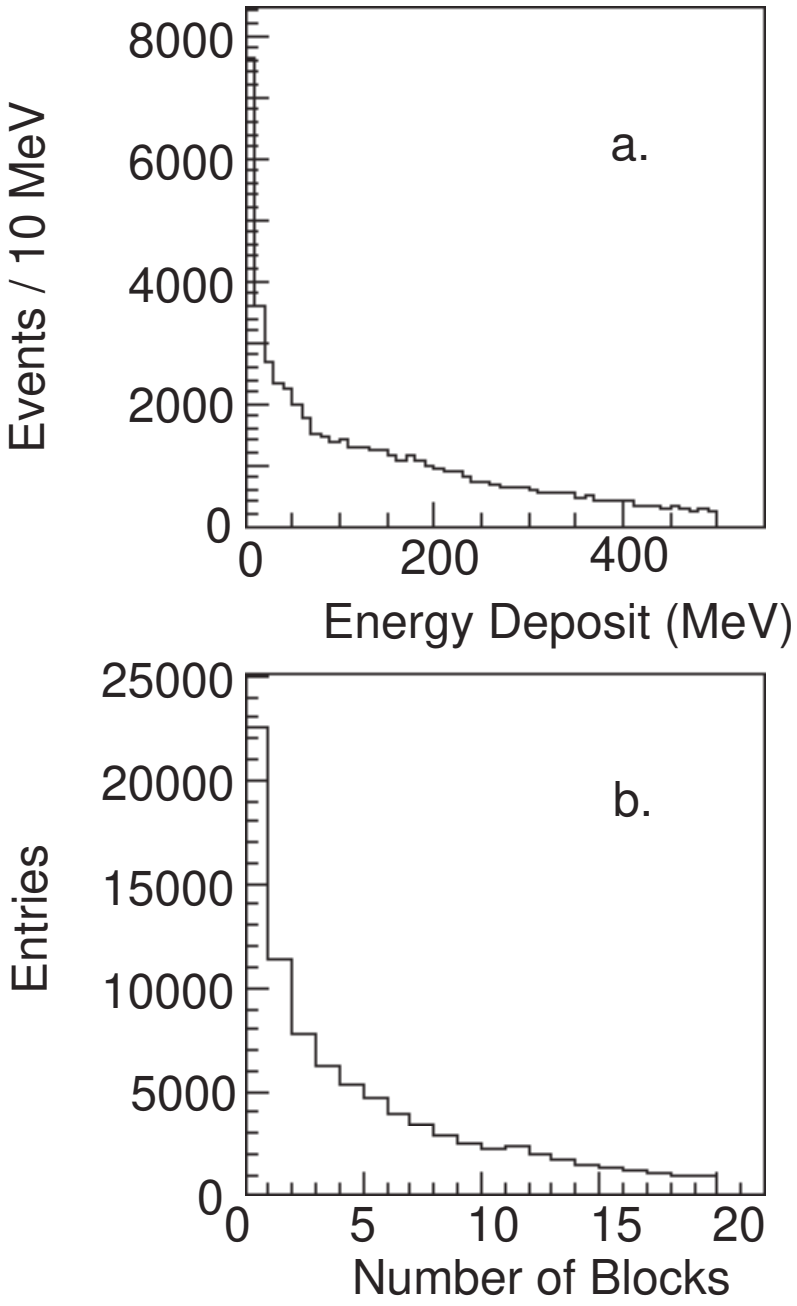

a. Monte Carlo
Events/2 MeV
800
600
400
200
0
0
20
40
60
80
Pulse Height (MeV)

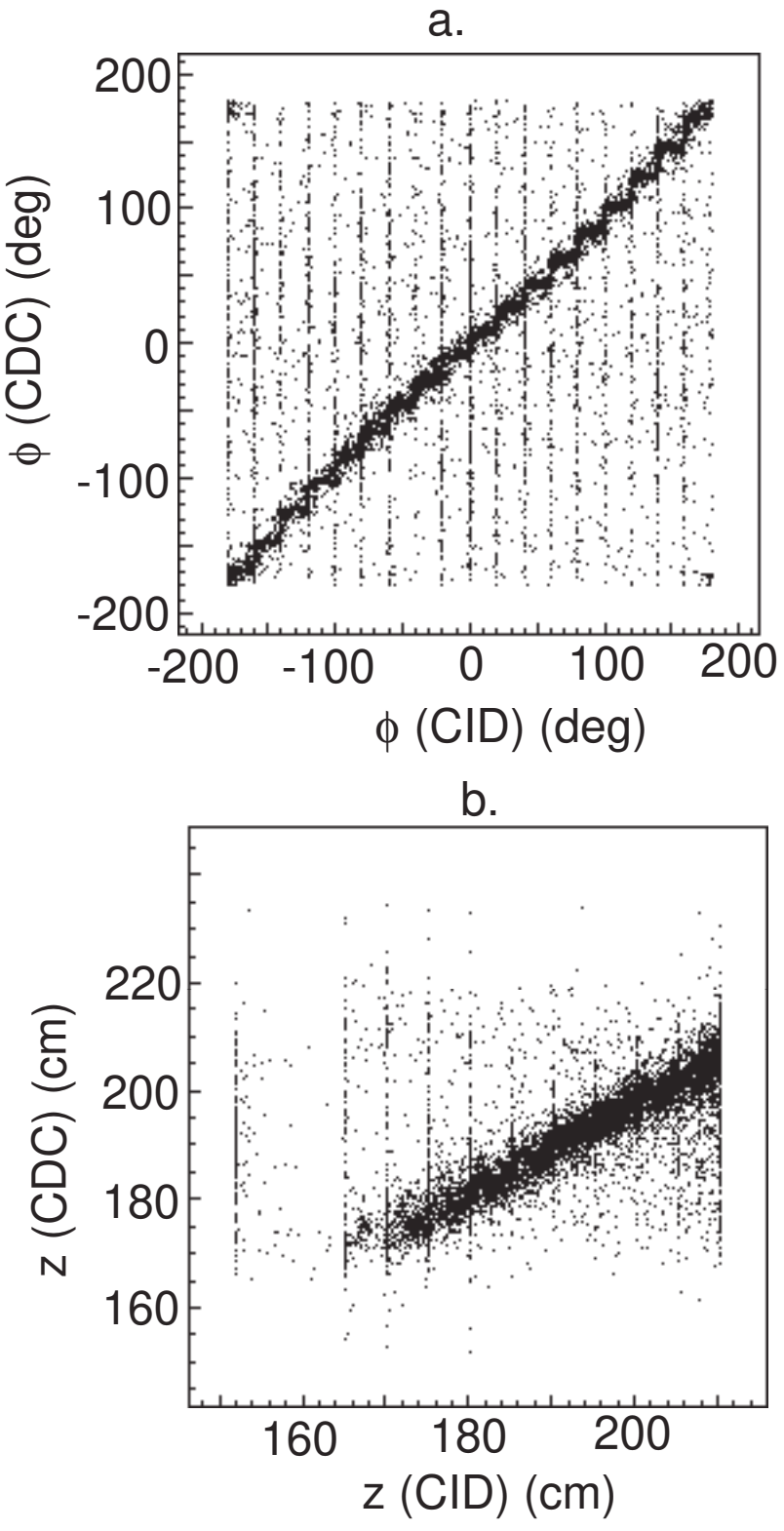

b. Data
Events/2 MeV
300
200
100
0
0
20
40
60
80
Pulse Height (MeV)

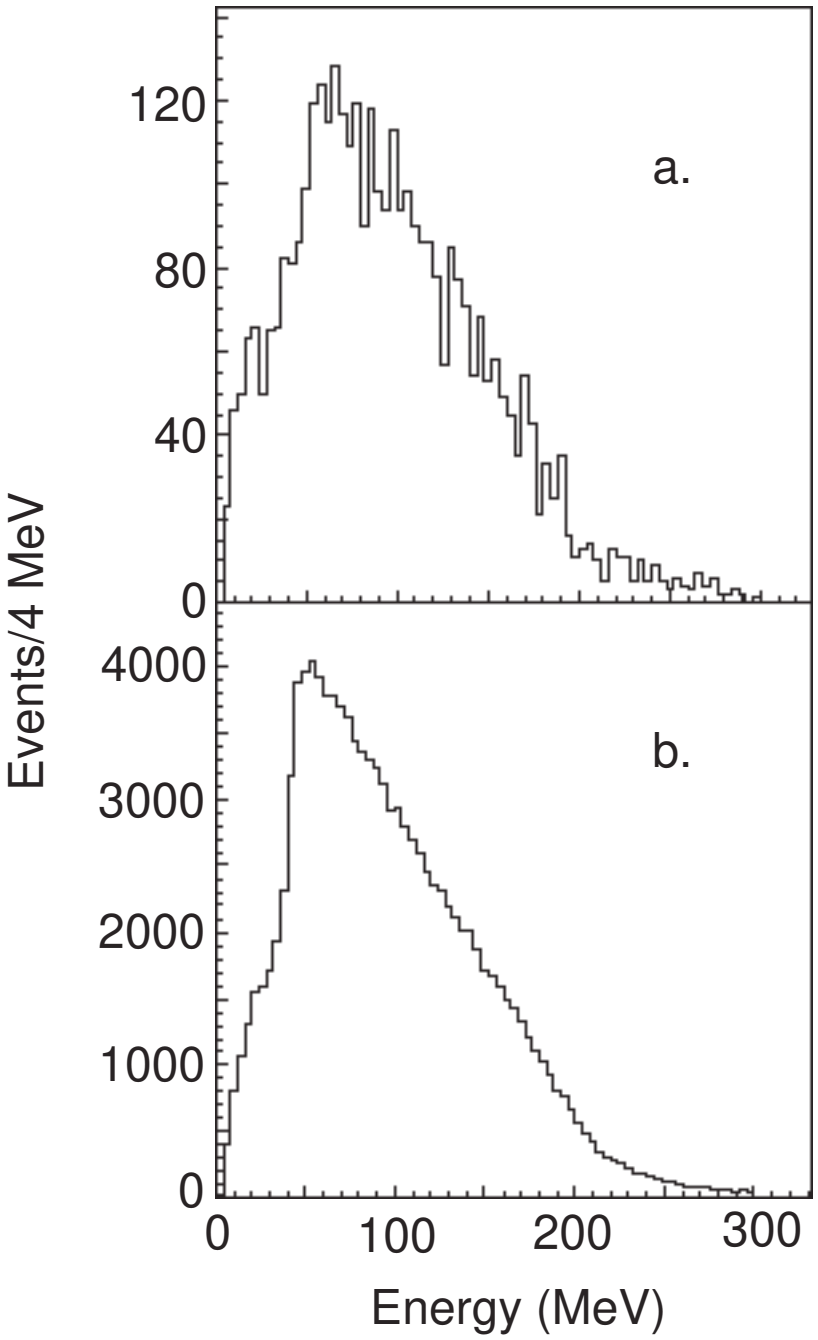

a.
Events / 3 MeV
200
150
100
50
0
0
50
100
150
Energy Deposit (MeV)

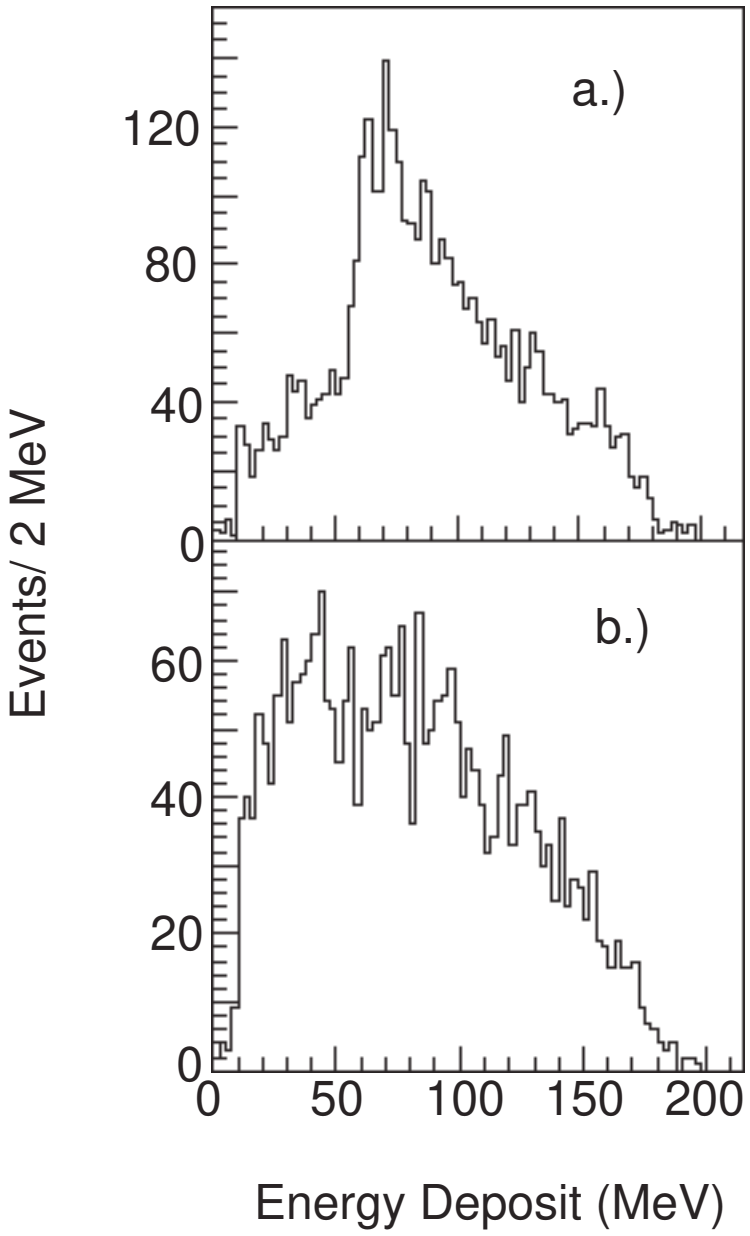

b.
Events
300
200
100
0
0
5
10
15
20
Number of Blocks


3000
2000
1000
0
a.
1200
800
400
0
b.
-5
0
5
10
Events/0.15 (GeV/c2)2
Missing Mass Squared (GeV/c2)2


8000
6000
4000
2000
0
Events / 10 MeV
a.
0
200
400
Energy Deposit (MeV)
25000
20000
15000
10000
5000
0
Entries
b.
0
5
10
15
20
Number of Blocks


a.
200
100
0
-100
-200
φ (CDC) (deg)
-200
-100
0
100
200
φ (CID) (deg)
b.
220
200
180
160
z (CDC) (cm)
160
180
200
z (CID) (cm)


120
80
40
0
a.
4000
3000
2000
1000
0
b.
Events/4 MeV
0
100
200
300
Energy (MeV)


a.)
b.)
120
80
40
0
60
40
20
0
0
50
100
150
200
Events/ 2 MeV
Energy Deposit (MeV)