Note: Hall C solid targets for 2022 - 2023
All solid targets are 12.7 mm in diameter (not dummy)
E12-17-005: CaFe (Ca40, Ca48, Fe54, Be, B(10)4C, B(11)4C, C)
E12-10-008: Fn at low A (Li6, Li7, Be, B(10)4C, B(11)4C, C, Al, Cu, Au)
E12-06-105: X>1 (Li6, Li7, Be, B(10)4C, B(11)4C, C, Al, Cu, Au, Ag, Sn, Ni-58, Ni-64, Fe54, Ti48, Th2
E12-17-105: pion LT
E12-10-003: d(e,e'p) at high Pmiss (LH2, LD2, C)

Target	Z	A	Req Thick	Thick (g/cm^2)
Helium-3	2	3	10 cm (0.328 g/cm2)	0.325
Helium-4	2	4	10 cm (0.3326 g/cm2)	0.335
Deterium	1	2	10 cm (1.67 g/cm2)	1.67
Lithium-7	3	7	300 mg/cm2	0.3
Lithium-6	3	6	300 mg/cm2	0.3
Beryllium	4	9	978 mg/cm2 (1.5% RL)	0.978
Calcium-40	20	40	800 mg/cm2	0.8
Calcium-48	20	48	800 mg/cm2	0.8
Carbon-12	6	12	524.4 mg.cm2	0.524
B-11 (B4C)	5	11	634.4 mg/cm2 (B4C)	0.634
B-10 (B4C)	5	10	572.2 mg/cm2 (B4C)	0.572
Aluminum	13	27	480.02 mg/cm2 (2% RL)	0.48
AL dummy	13	27	1.7% rad length	0.416
Copper-Nat	29	63	6% RL = 0.7986 g/cm2	0.7986
Tin-Nat	50	120	6% RL	0.529
Titanium-48	22	48	323.2 mg/cm2 (2% RL)	0.323
Iron-54	26	54	415.2 mg/cm2 (3% RL)	0.4152
Silver-Nat	47	108	6% RL	0.538
Thorium-232	90	232	6% RL	0.3642
Nickel-58	28	58	253.6 mg/cm2 (2% RL)	0.2536
Nickel-64	28	64	253.6 mg/cm2 (2% RL)	0.2536
Gold-197	79	197	6% RL (0.3795 g/cm2)	0.388

32)

Density (g/cc)	Req Thickness (mm)	Real Thickness (mm)	Fabrication Status
0.0325	100.000	100.000	JRP
0.0335	100.000	100.000	JRP
0.167	100.000	100.000	JRP
0.534	5.618	6.000	JTG-fab
0.458	6.550	6.000	JTG-fab
1.848	5.292	5.000	AmerElem
1.55	5.161	5.000	ORNL
1.86	4.301	5.000	N/A
1.8	2.911	3.000	AmerElem
2.52	2.516	2.500	AmerElem
2.29	2.498	2.500	AmerElem
2.699	1.778	1.800	AmerElem
2.699	1.541	1.630	Xometry
8.96	0.891	1.000	AmerElem
7.31	0.724	0.747	Complete
4.5	0.718	0.700	Complete
7.87	0.528	0.500	Cambridge Isotopes
10.49	0.513	0.500	AmerElem
11.72	0.311	0.300	JTG-fab
8.9	0.285	0.300	Complete
9.7	0.261	0.290	Complete
19.32	0.201	0.200	AmerElem

Imax (microA)	Power 1 microA current (W)	Thermal Cond (W/m-K)	Power Desnity (W/mm^3)
80	1.120	1	0.224
80	0.913	1	0.183
80	4.160	1	0.832
80	0.663	80	2.210
80	0.663	80	2.210
80	1.900	203	7.600
80	1.800	201	7.200
80	1.800	201	7.200
80	1.510	100	10.067
80	1.360	32	10.880
80	1.360	32	10.880
80	1.067	236	11.856
80	0.483	236	5.926
80	1.790	388	35.800
50	0.980	64	16.399
50	0.650	19.5	11.607
80	0.916	79.8	36.640
80	0.997	428.6	39.880
70	0.596	54	34.767
80	0.557	91	37.133
80	0.557	91	38.414
80	0.698	317	69.800

Max allowable Temp (K)	Max Sim Temp (K)
22	
425	165
425	165
1520	
700	350
700	350
3900	
2300	
2300	
900	
900	325
1300	
500	410
1100	898
1100	777
1200	
1300	964
1700	
1700	
1300	

Note: Hall C solid targets for:
E12-17-005: CaFe (Ca40, Ca48, Fe54, Be, B(10)4C, B(11)4C, C)
Ladder #1

Target	Z	A	Req Thick	Thick (g/cm^2)
Beryllium	4	9	978 mg/cm2 (1.5% RL)	0.978
Calcium-40	20	40	800 mg/cm2	0.8184
Calcium-48	20	48	800 mg/cm2	1.00812
Carbon-12	6	12	524.4 mg.cm2	0.524
Boron-11	5	11	634.4 mg/cm2 (B4C)	0.634
Boron-10	5	10	572.2 mg/cm2 (B4C)	0.572
Tin-Nat	50	120	6% RL	0.529
Titanium-48	22	48	323.2 mg/cm2 (2% RL)	0.323
Iron-54	26	54	415.2 mg/cm2 (3% RL)	0.50368
Silver-Nat	47	108	6% RL	0.538
Thorium-232	90	232	6% RL	0.3642
Nickel-58	28	58	253.6 mg/cm2 (2% RL)	0.2536
Nickel-64	28	64	253.6 mg/cm2 (2% RL)	0.2536

Density (g/cc)	Thickness (mm)	Ordered/Quoted Thickness (mm)	Measured Thickness (g/cm^2)
1.848	5.292	5.000	
1.55	5.280	5.000	
1.86	5.420	5.000	
1.8	2.911	3.000	
2.52	2.516	2.500	
2.29	2.498	2.500	
7.31	0.724	0.747	0.546
4.5	0.718	0.700	0.310
7.87	0.640	0.550	
10.49	0.513	0.500	
11.72	0.311	0.300	
8.9	0.285	0.300	0.241
9.82	0.258	0.290	0.261

Imax (microA)
80
80
80
80
80
80
35.000
80
35
80.000
80.000
80.000
80.000

Note: Hall C solid targets for:
E12-10-008: Fn at low A (Li6, Li7, Be, B(10)4C, B(11)4C, C, Al, Cu, Au)
E12-06-105: X>1 (Li6, Li7, Be, B(10)4C, B(11)4C, C, Al, Cu, Au, Ag, Sn, Ni-58, Ni-64, Fe54, Ti48, T
E12-10-003: d(e,e'p) at high Pmiss (LH2, LD2, C)
Ladder #2

Target	Z	A	Thick (g/cm^2)	Density (g/cc)
Lithium-7	3	7	0.3	0.534
Lithium-6	3	6	0.3	0.458
Beryllium	4	9	0.978	1.848
Carbon-12	6	12	0.524	1.8
Boron-11	5	11	0.634	2.52
Boron-10	5	10	0.572	2.29
Aluminum	13	27	0.48	2.7
Copper-Nat	29	63	0.7986	8.96
Titanium-48	22	48	0.323	4.5
Iron-54	26	54	0.4152	7.87
Gold-197	79	197	0.388	19.32

Th232)

Thickness (mm)	Ordered/Quoted Thickness (mm)	Measured Thickness (g/cm^2)	Imax (microA)
5.618	6.000		15.000
6.550	6.000		15.000
5.292	5.000		80
2.911	3.000		80
2.516	2.500		80
2.498	2.500		80
1.778	2.000		40
0.891	1.000		80
0.718	0.700	0.310	80
0.528	0.550		35
0.201	0.400	0.405	80.000