TABLE OF ALL RUNS

* = aborted run
** = check logbook for additional notes; probably not a useful run
Note: Unless specified, ^{14}C means the strong ^{14}C source (0.9853 μCi), not the weak one.

TABLE 1. Source list

Source	Activity$_0$	t_0	$t_{1/2}$	Activity$_t$
^{241}Am α	—	—	—	—
^{241}Am γ	10.51 μCi	12 Jan 1970	—	—
^{14}C β (strong)	0.9853 μCi	15 Nov 2012	—	—
^{14}C β (weak)	45.18 nCi	01 Sept 2011	—	—
^{133}Ba γ	2003	—	—	—
^{137}Cs (window)	10 μCi	—	—	—
^{90}Sr	—	—	—	—
^{22}Na	10μCi	2003	—	—

TABLE 2. 6/8/2016

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
001	4X	200	3	100 ms	none	10	^{241}Am α
002	4X	200	3	100 ms	none	2000	^{241}Am α
003	10X	200	3	100 ms	none	2000	^{241}Am α
004	20X	200	3	100 ms	none	2000	^{241}Am α
005	10XS	200	3	100 ms	none	2000	^{241}Am α
006	20XS	200	3	100 ms	none	2000	^{241}Am α
007	20XS	200	3	25 ms	none	500	^{14}C
007.2	20XS	200	3	25 ms	4x4	500	^{14}C
008	10XS	200	3	25 ms	4x4	500	^{14}C
009	10XS	200	3	25 ms	4x4	500	dark
009.2	20XS	200	3	25 ms	4x4	500	dark

TABLE 3. 6/9/16

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
010	10XS	200	3	25 ms	4x4	500	^{90}Sr
011	20XS	200	3	25 ms	4x4	500	^{90}Sr
012	10X	200	3	25 ms	4x4	500	^{90}Sr
013	20X	200	3	25 ms	4x4	500	^{90}Sr
014	10XS	200	3	25 ms	4x4	500	dark
015	20XS	200	3	25 ms	4x4	500	dark
016	10X	200	3	25 ms	4x4	500	dark
017	20X	200	3	25 ms	4x4	500	dark
018	10XS	200	3	25 ms	none	5000	^{14}C/mask*
019	10XS	200	3	25 ms	none	5000	^{14}C/mask
020	10XS	200	3	25 ms	none	5000	dark/mask

TABLE 4. 6/10/16

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
021	10XS	200	3	25 ms	4x4	8000	^{90}Sr
022	10XS	200	3	25 ms	4x4	2000	^{14}C/linemask

TABLE 5. 6/13/10

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
023	10XS	200	3	25 ms	4x4	500	dummy
024	10XS	200	3	25 ms	4x4	500	^{241}Am γ
025	10XS	200	3	10 ms	4x4	500	^{241}Am γ
026	10XS	200	3	10 ms	4x4	750	dark
027	10XS	200	3	25 ms	4x4	500	dark
028	10XS	200	3	25 ms	4x4	1000	^{22}Na
029	10XS	200	3	25 ms	4x4	1000	^{133}Ba
030	10XS	200	3	25 ms	4x4	1000	^{14}C weak
031	10XS	200	3	25 ms	4x4	1000	dark

TABLE 6. 6/15/10

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
032	10XS	200	3	25 ms	4x4	5000	^{133}Ba
033	10XS	200	3	25 ms	4x4	5000	dark
034	10XS	200	3	25 ms	4x4	5000	^{241}Am γ
035	10XS	200	3	25 ms	4x4	5000	^{14}C strong
036	10XS	200	3	25 ms	4x4	5000	^{137}Cs $\gamma\beta$

TABLE 7. 6/16/10

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
037	10XS	200	3	10 ms	4x4	10000	^{14}C strong
038	10XS	200	3	10 ms	4x4	10000	^{14}C strong
039	10XS	200	3	10 ms	4x4	10000	dark
040	10XS	200	3	25 ms	4x4	10000	dark
041	10XS	200	3	25 ms	4x4	10000	^{14}C strong
042	10XS	200	3	25 ms	4x4	10000	^{14}C strong
043	—	—	—	—	—	—	—
044	10XS	200	3	25 ms	4x4	10000	^{241}Am α mask

TABLE 8. 6/23/10

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
045	10XS	200	3	10 ms	none	10	cloth
046	10XS	200	3	25 ms	4x4	10000	cloth
047	20XS	200	3	25 ms	4x4	10000	cloth
048	20XS	200	3	25 ms	4x4	10000	dark

TABLE 9. 6/30/16

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
049	10XS	200	3	25 ms	2x2	10000	^{14}C weak
050	10XS	200	3	25 ms	4x4	1000	^{90}Sr
050.2	10XS	200	3	25 ms	4x4	1000	^{90}Sr (cloth)
051	10XS	200	3	25 ms	4x4	1000	^{137}Cs $\gamma\beta$
052	10XS	200	3	25 ms	4x4	1000	^{137}Cs $\gamma\beta$ (cloth)

Table 10. 6/30/16: Paper Mask

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
054	10XS	200	3	25 ms	4x4	10000	^{14}C w/ paper
067	10XS	200	3	25 ms	4x4	10000	^{14}C

Table 11. 6/30/16: Gain Testing

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
053	10XS	200	3	25 ms	4x4	1000	^{14}C
055	10XS	200	1	25 ms	4x4	1000	^{14}C
056	10XS	200	2	25 ms	4x4	1000	^{14}C
057	10XS	200	3	25 ms	4x4	1000	^{14}C
058	10XS	100	1	25 ms	4x4	1000	^{14}C
059	10XS	100	2	25 ms	4x4	1000	^{14}C
060	10XS	100	3	25 ms	4x4	1000	^{14}C
061	10XS	300	1	25 ms	4x4	1000	^{14}C
062	10XS	300	2	25 ms	4x4	1000	^{14}C
063	10XS	300	3	25 ms	4x4	1000	^{14}C
064	10XS	400	1	25 ms	4x4	1000	^{14}C
065	10XS	400	2	25 ms	4x4	1000	^{14}C
066	10XS	400	3	25 ms	4x4	1000	^{14}C

Table 12. 7/1/2016: Very long masked ^{14}C run

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
068	10XS	200	3	25 ms	4x4	49354	^{14}C w/ paper

TABLE 13. 7/1/2016: Gain Testing Dark Runs

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
069	10XS	200	3	25 ms	4x4	1000	dark
070	10XS	200	2	25 ms	4x4	1000	dark
071	10XS	200	1	25 ms	4x4	1000	dark
072	10XS	100	3	25 ms	4x4	1000	dark
073	10XS	100	2	25 ms	4x4	1000	dark
074	10XS	100	1	25 ms	4x4	1000	dark
075	10XS	300	3	25 ms	4x4	1000	dark
076	10XS	300	2	25 ms	4x4	1000	dark
077	10XS	300	1	25 ms	4x4	1000	dark
078	10XS	400	3	25 ms	4x4	1000	dark
079	10XS	400	2	25 ms	4x4	1000	dark
080	10XS	400	1	25 ms	4x4	1000	dark

TABLE 14. 7/11/2016

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
081	10XS	200	3	25 ms	4x4	10000	^{241}Am α
082	10XS	200	3	25 ms	4x4	10000	^{241}Am α w/ paper

TABLE 15. 7/26/2016: Finding minimum detectable activity

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
083	10XS	200	3	25 ms	4x4	8999	^{241}Am α; paper
084	—	—	—	—	—	—	—
085	10XS	200	3	25 ms	4x4	8985	^{241}Am γ; nothing
086	10XS	200	3	25 ms	4x4	8970	^{14}C weak; spacer
087	10XS	200	3	25 ms	4x4	9000	^{14}C; 250 μm mask
088	10XS	200	3	25 ms	4x4	9000	^{14}C; spacer

TABLE 16. 7/28/16: Finding minimum detectable activity correctly

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
089	10XS	200	3	25 ms	4x4	9994	^{14}C; nothing
090	10XS	200	3	25 ms	4x4	9999	^{14}C; spacer
091	10XS	200	3	25 ms	4x4	10000	^{14}C; 250 μm mask
092	10XS	200	3	25 ms	4x4	10000	^{14}C weak; spacer

TABLE 17. 7/29/16: Finding minimum detectable activity with americium

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
093	10XS	200	3	25 ms	4x4	9999	^{14}C; 1 mm mask
094	10XS	200	3	25 ms	4x4	10000	^{241}Am; nothing
095	10XS	200	3	25 ms	4x4	10000	^{241}Am; spacer
096	10XS	200	3	25 ms	4x4	10000	^{241}Am; 250 μm mask
097	10XS	200	3	25 ms	4x4	9998	^{241}Am; 1 mm mask

TABLE 18. 8/2/16: New Cs and Sr runs (old Sr run had readout speed of 17 MHz instead of 5 MHz); Sr run for position resolution

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
098	10XS	200	3	25 ms	4x4	10000	^{137}Cs
099	10XS	200	3	25 ms	4x4	9999	^{90}Sr
100	10XS	200	3	25 ms	4x4	10000	^{90}Sr; 250 μm mask

TABLE 19. 8/3/16: Very long masked runs for position resolution

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
101	10XS	200	3	25 ms	4x4	19999	^{14}C; 250 μm mask
102	—	—	—	—	—	—	—
103	10XS	200	3	25 ms	4x4	20000	^{241}Am; 250 μm mask

TABLE 20. 8/3/16: New C, Cs, and Sr data to see if results from yesterday can be replicated

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source
104	10XS	200	3	25 ms	4x4	10000	^{14}C
105	10XS	200	3	25 ms	4x4	10000	^{137}Cs
106	10XS	200	3	25 ms	4x4	10000	^{90}Sr
107	10XS	200	3	25 ms	4x4	10000	^{14}C
108	10XS	200	3	25 ms	4x4	10000	^{137}Cs
109	10XS	200	3	25 ms	4x4	10000	^{90}Sr

TABLE 21. Table Template

#	Obj.	EM Gain	PreAmp	Exp.	Binning	# Images	Source