Radiation Report

TPS7H1301-SP Neutron Displacement Damage (NDD) Characterization Report

ABSTRACT

This report presents the effect of neutron displacement damage (NDD) on the TPS7H1301-SP, a 3V to 6.3V Input, 400mA, -6V to -0.6V Radiation Hardened Switched Capacitor Voltage Inverter with Integrated Low Dropout Regulators. The TPS7H1301-SP showed a strong degree of hardness to neutron irradiation up to fluence level 1×10^{13} n/cm^2 . The neutron irradiation test is a destructive test. Test procedure follows MIL-STD-883 Method 1017 as guidance. The purpose of this test is to determine the device susceptibility to non-ionizing energy loss (NIEL) degradation. Objectives of the test are, to detect and measure the degradation of critical device parameters as a function of neutron fluence and to determine if these parameters are within specified limits after exposure to a specified level of neutron fluence.

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Trademarks

1 Device Information

1.1 Product Description

The TPS7H1301-SP is a low noise regulated switched-capacitor voltage inverter with an integrated adjustable low dropout regulator designed for use in area sensitive, space environment applications.

Operating with an input voltage range of 3V to 6.3V, the TPS7H1301 delivers up to 400mA output current with an adjustable voltage range of -0.6V to -6V. The device features external compensation capability through direct error amplifier access via the STAB pin and operates at an internal switching frequency of 500kHz.

The TPS7H1301-SP is packaged in a 14-pin HBL ceramic flat package. A standard microcircuit drawing (SMD) is 5962R2421501VXC.

1.2 Device Details

Table 1-1 lists the device information used in this NDD characterization.

Table 1-1. Device and Exposure Details

NDD Exposure Details	
TI Device	TPS7H1301-SP
TI Part Name	5962R2421501VXC
Package	14-pin HBL (CFP)
Technology	LBC7
Quantity Tested	12 + 3 control units
Exposure Facility	Fast Neutron Irradiation (FNI) Facility of University of Massachusetts Lowell Research Reactor (UMLRR)
Neutron Fluence (1-MeV equivalent) Level	1×10^{12}, 5×10^{12}, 1×10^{13} n/cm^2
Irradiation Temperature	Ambient room temperature

2 Total Dose Test Setup

2.1 Test Overview

The TPS7H1301-SP was tested according to MIL-STD-883, Method 1017 as a guide for neutron irradiation. The TPS7H1301-SP was electrically tested using the production automated test equipment (ATE) program at an ambient room temperature of 25°C before and after neutron irradiation. All devices remained functional passing all parametric test limits.

2.2 Test Description and Facilities

The utilized test facility is the Fast Neutron Irradiation (FNI) Facility of University of Massachusetts Lowell Research Reactor. The neutron fluence for this irradiation was measured utilizing ASTM E-265 “Measuring Reaction Rates and Fast Neutron Fluence by Radioactivation of Sulfur-32” and correlated to the measured reactor power level. All irradiation conditions required under ASTM 722 were met, this includes: neutron fluence, distribution and uncertainty. The Average Integrated Neutron Fluence, 1-MeV(Si) equivalent, reflects these factors. Detailed information of the radiation facility is available at the following link:

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2.3 Test Setup Details

Devices were irradiated at three fluence levels in unbiased conditions: 1.0×10^{12} n/cm^2 , 5.0×10^{12} n/cm^2 and 1.0×10^{13} n/cm^2. See the details in the following table

2.4 Test Configuration and Conditions

Table 2-1. Neutron Irradiation Conditions

GROUP	SAMPLE QTY	NEUTRON FLUENCE (n/cm^2)	BIAS
A	4	1.0 x 10^{12}	Unbias
B	4	5.0 x 10^{12}	Unbias
C	4	1.0 x 10^{13}	Unbias
Control Units	3	N/A	N/A

3 NDD Characterization Test Results

3.1 NDD Characterization Summary

The results show that all devices were fully functional and within specification limits. A sample size of twelve units was exposed for neutron irradiation and an additional unirradiated control units were used as correlation.

Overall, the TPS7H1301-SP showed a strong degree of hardness to Neutron irradiation up to fluence level 1 × 10^{13}n/cm^2 . The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at each fluence level. The parameters that showed a greater degree of change between pre- and post- irradiation were still within the Electrical Performance Characteristics specified in the Data Sheet Electrical Parameters table. See Table 3-1 for the Data Sheet Electrical Parameters and Associated Tests. Electrical testing is done for pre- and post- neutron irradiation by ATE. ATE electrical test is done at an ambient room temperature of 25°C. See Appendix A for NDD report up to 1.0 × 10^{13}n/cm^2 .

The parameters post-irradiation were still within the electrical performance characteristics specified in the data sheet electrical parameters.

See *TPS7H130X-SP 3V to 6.3V Input, 400mA, -6V to -0.6V Radiation Hardened Switched Capacitor Voltage Inverter with Integrated Low Dropout Regulator* for the data sheet electrical parameters and associated tests.

See Appendix A for NDD report up to 1 × 10^{13} n/cm^2.

3.2 Specification Compliance Matrix

Over 3V ≤ V_{IN} ≤ 6.3V, $V_{OUT\ (set)}$ = -1.8, I_{OUT} = 10mA, C_{REF} = 47nF, over operating free-air temperature range (T_A = -55℃ to 125℃), typical values are at T_A = 25℃, unless otherwise noted.

PARAMETER		TEST CONDITIONS		MIN	TYP	MAX	UNIT	Test No
POWER SUPPLIES and CURRENTS								
V_{UVLOR}	Input supply UVLO rising				2.7		V	60.2
V_{UVLOF}	Input supply UVLO falling				2.53		V	60.3
$V_{UVLO(HYS)}$	Input supply UVLO Hysteresis				150		mV	60.4
I_Q	Quiescent Current	I = 0A, V_{EN} = 7V			15	45	mA	31.3, 31.5, 205.2, 205.4
I_{SHDN}	Shutdown Current	V_{EN} = 0V, I_{OUT} = 0A			0.8	1.5	mA	31.2, 31.4, 205.1, 205.3
I_{FB}	Feedback leakage current	V_{FB} = -0.7V			100	500	nA	31.1
ENABLE								
$V_{EN(rising)}$	Enable rising threshold (turn-on)			0.57	0.6	0.625	V	65.2, 65.6
$V_{EN(falling)}$	Enable falling threshold (turn-off)			0.47	0.5	0.53	V	65.3, 65.7
$t_{EN(delay)}$	EN propagation delay,	EN high to PG high at VIN = 5V VIN = -1.8V			500	2300	µs	65.4, 65.8
$I_{EN(LKG)}$	Enable leakage current	V_{EN} = 7V			100	500	nA	65.1, 65.5
POWER GOOD								
$V_{PG(rise)}$	Power good rising threshold as a percent of V_{OUT}	SR VOUT = 10V/s		92%	95%	98%		71.3, 71.6
$V_{PG(fall)}$	Power good falling threshold as a percent of V_{OUT}	SR VOUT = 10V/s		87%	90%	93%		71.4, 71.7

Over 3V ≤ V_{IN} ≤ 6.3V, $V_{OUT\ (set)}$ = -1.8, I_{OUT} = 10mA, C_{REF} = 47nF, over operating free-air temperature range (T_A = -55℃ to 125℃), typical values are at T_A = 25℃, unless otherwise noted.

PARAMETER		TEST CONDITIONS		MIN	TYP	MAX	UNIT	Test No
$V_{PG(OL)}$	Power good output low	$I_{PG(SINK)}$ = 2mA			90	190	mV	70.3, 70.4
$V_{IN(MIN\_PG)}$	Minimum V_{IN} for valid PG (V_{PG} < 0.5V)	$I_{PG(sink)}$ = 0.5mA			0.8	1	V	71.1, 71.2,
$I_{PG(LKG)}$	Power good leakage	V_{PG} = 7V, V_{FB} = -0.7V			0.05	2	µA	70.1, 70.2
SWITCH CAP ARRAY								
$R_{DISCHARGE}$	CPOUT discharge resistance	C_{CPOUT} = 10µF	V_{CPOUT} = -0.3V		75		Ω	75.2, 75.4
$t_{DISCHARGE}$	CPOUT discharge time (CPOUT > -0.3V) to GND				6.5		ms	75.1, 75.3
f_{SW}	Switching frequency			400	500	600	kHz	35.1 to 35.6
$R_{DS(ON1)}$	Switch array MOSFET1 drain source resistance	I_{RDSON} = 100mA			300	480	mΩ	40.2
$R_{DS(ON2)}$	Switch array MOSFET2 drain source resistance	I_{RDSON} = 100mA			175	280	mΩ	40.5
$R_{DS(ON3)}$	Switch array MOSFET3 drain source resistance	I_{RDSON} = 100mA			235	300	mΩ	40.3
$R_{DS(ON4)}$	Switch array MOSFET4 drain source resistance	I_{RDSON} = 100mA			220	350	mΩ	40.6
$R_{CP(OUT)}$	Output resistance to $C_{P(OUT)}$	I_L = 150mA	V_{IN} = 3V		4.5		Ω	80.1
		I_L = 250mA	V_{IN} = 5V		3.5			80.2
			V_{IN} = 6.3V		3.1			80.3
DROPOUT								
I_{DO}	Dropout current	$V_{OUT(set)}$ = -1.8V $I_{OUT(meas.)}$ = 98% × $V_{OUT(NOM)}$	V_{IN} = 3	75	125		mA	44.1
			V_{IN} = 3.3	100	150			44.2
			V_{IN} = 4	200	300			44.3
			V_{IN} = 5	400				44.4
			V_{IN} = 6	400				44.5
		$V_{OUT(set)}$ = -5V $I_{OUT(meas.)}$ = 98% × $V_{OUT(NOM)}$	V_{IN} = 5.5	40	50			44.6
			V_{IN} = 6	250	300			44.7
ACCURACY								
V_{ACC}	Output voltage accuracy	V_{IN} = 3V, V_{OUT} = -0.6V,	I_{OUT} = 1mA	-1.5%		1.5%		50.1
			I_{OUT} = 150mA	-1.5%		1.5%		50.2
		V_{IN} = 3V, V_{OUT} = -1.2V,	I_{OUT} = 150mA	-1.5%		1.5%		50.5
		V_{IN} = 3V, V_{OUT} = -1.8V,	I_{OUT} = 1mA	-1.5%		1.5%		50.6
			I_{OUT} = 150mA	-1.5%		1.5%		50.7
			I_{OUT} = 400mA	-1.5%		1.5%		50.10
		V_{IN} = 6.3V, V_{OUT} = -0.6V,	I_{OUT} = 1mA	-1.5%		1.5%		50.3
			I_{OUT} = 400mA	-1.5%		1.5%		50.4
		V_{IN} = 6.3V, V_{OUT} = -5V,	I_{OUT} = 1mA	-1.5%		1.5%		50.11
			I_{OUT} = 250mA	-1.5%		1.5%		50.12
		V_{IN} = 6.3V, V_{OUT} = -6V	10mA	-3%		3%		50.13
$\Delta V_{OUT}/\Delta V_{IN}$	Line regulation	3.3V ≤ V_{IN} ≤ 6.3V	ΔV = 3V I_{OUT} = 150mA		100	1300	µV/V	55.1, 55.2

Over 3V ≤ V_{IN} ≤ 6.3V, $V_{OUT\ (set)}$ = -1.8, I_{OUT} = 10mA, C_{REF} = 47nF, over operating free-air temperature range (T_A = -55℃ to 125℃), typical values are at T_A = 25℃, unless otherwise noted.

PARAMETER		TEST CONDITIONS		MIN	TYP	MAX	UNIT	Test No
$\Delta V_{OUT}/\Delta I_{OUT}$	Load regulation	10mA ≤ I_{OUT} ≤400mA V_{IN} = 5V, V_{OUT} = -1.8V			8	35	mV/A	55.3
V_{REF}				-0.606	-0.6	-0.594	V	30.1, 30.2, 30.3

4 Applicable and Reference Documents

4.1 Applicable Documents

- Texas Instruments, *TPS7H130X-SP 3V to 6.3V Input, 400mA, -6V to -0.6V Radiation Hardened Switched Capacitor Voltage Inverter with Integrated Low Dropout Regulator*, data sheet

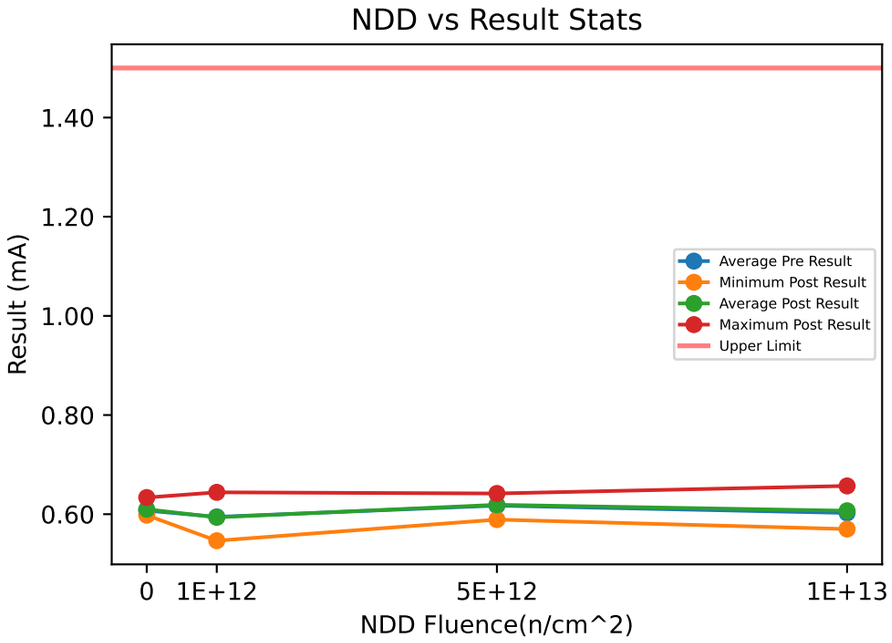
4.2 Reference Documents

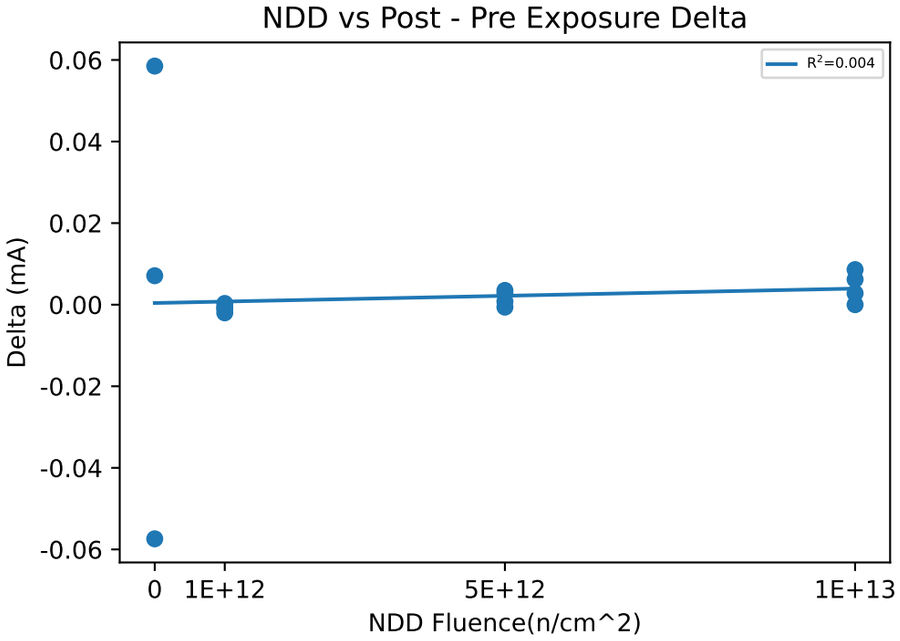
Texas Instruments neutron irradiation test follow the guideline from MIL-STD-883 TM 1017. The document is available in Defense Logistic Agency's website.

Appendix A: NDD Report Data

This appendix contains the NDD report data.

Device Test: 205.1 I_SHDN(SUPPLY_CURRENT|POST/VIN/SHUTDOWN///3/@I_SHDN)





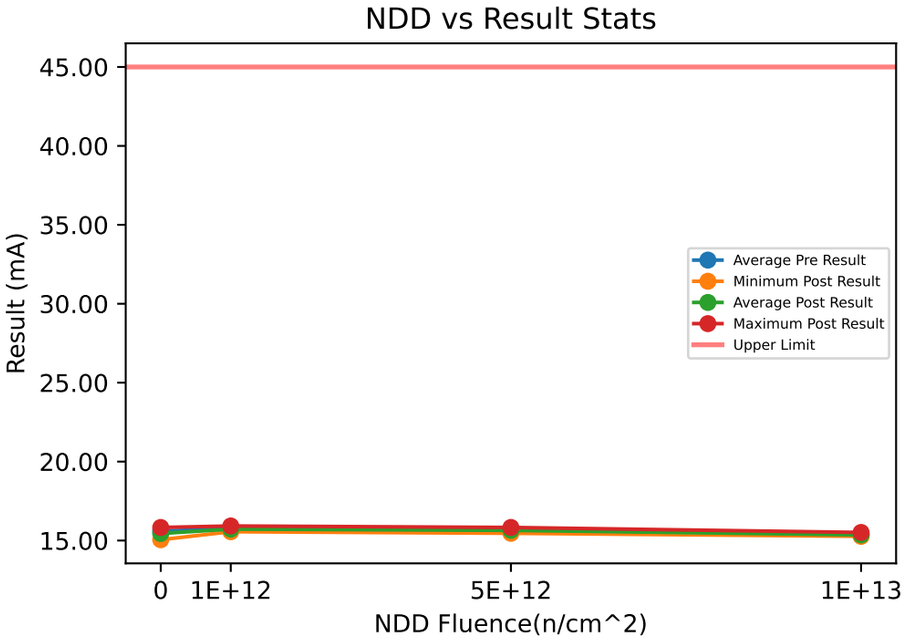
Test Results (Upper Limit = 1.5 (mA))

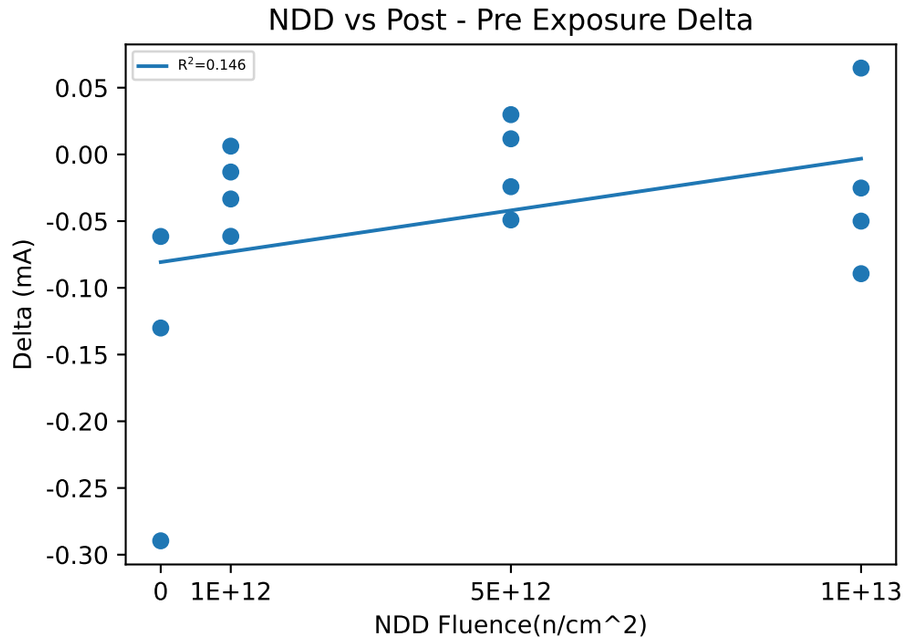
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.6558	0.5984	-0.0574
2	0	CU2	0.5909	0.598	0.0071
3	0	CU3	0.5751	0.6336	0.0585
10	1e+12	1E12n/cm2	0.6438	0.6441	0.0003
11	1e+12	1E12n/cm2	0.5472	0.5465	-0.0007
12	1e+12	1E12n/cm2	0.615	0.613	-0.002
13	1e+12	1E12n/cm2	0.5723	0.5713	-0.001
20	5e+12	5E12n/cm2	0.5864	0.5891	0.0027
21	5e+12	5E12n/cm2	0.641	0.6418	0.0008
22	5e+12	5E12n/cm2	0.6169	0.6163	-0.0006
23	5e+12	5E12n/cm2	0.6251	0.6286	0.0035
30	1e+13	1E13n/cm2	0.5672	0.57	0.0028
31	1e+13	1E13n/cm2	0.6484	0.657	0.0086
32	1e+13	1E13n/cm2	0.6244	0.6306	0.0062
33	1e+13	1E13n/cm2	0.5701	0.5701	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5751	0.60727	0.6558	0.042767	0.598	0.61	0.6336	0.020439	-0.0574	0.0027333	0.0585	0.058073
1e+12	0.5472	0.59458	0.6438	0.043131	0.5465	0.59373	0.6441	0.043368	-0.002	-0.00085	0.0003	0.00094692
5e+12	0.5864	0.61735	0.641	0.022931	0.5891	0.61895	0.6418	0.02246	-0.0006	0.0016	0.0035	0.0018529
1e+13	0.5672	0.60252	0.6484	0.040341	0.57	0.60693	0.657	0.043922	0	0.0044	0.0086	0.0037771

Device Test: 205.2 IQ_VIN(SUPPLY_CURRENT|POST/VIN/QUIESCENT///3/@IQ_VIN)





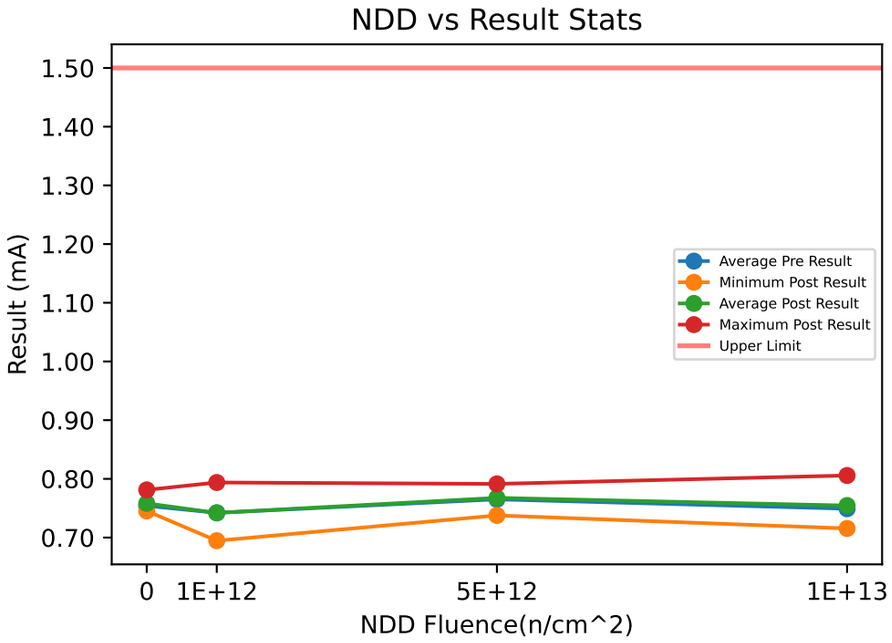
Test Results (Upper Limit = 45.0 (mA))

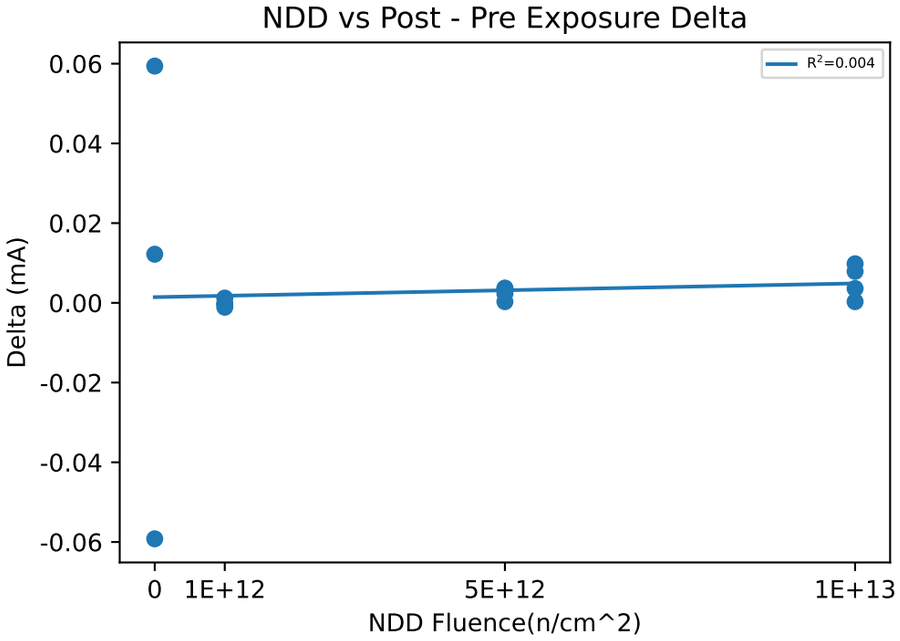
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	15.341	15.051	-0.2896
2	0	CU2	15.957	15.827	-0.1301
3	0	CU3	15.516	15.455	-0.0615
10	1e+12	1E12n/cm2	15.935	15.922	-0.0132
11	1e+12	1E12n/cm2	15.626	15.632	0.0062
12	1e+12	1E12n/cm2	15.591	15.558	-0.0334
13	1e+12	1E12n/cm2	15.838	15.777	-0.0614
20	5e+12	5E12n/cm2	15.493	15.469	-0.0242
21	5e+12	5E12n/cm2	15.812	15.824	0.0117
22	5e+12	5E12n/cm2	15.798	15.828	0.0298
23	5e+12	5E12n/cm2	15.507	15.458	-0.0491
30	1e+13	1E13n/cm2	15.447	15.512	0.0647
31	1e+13	1E13n/cm2	15.374	15.324	-0.05
32	1e+13	1E13n/cm2	15.415	15.326	-0.0894
33	1e+13	1E13n/cm2	15.291	15.266	-0.0252

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	15.341	15.605	15.957	0.31722	15.051	15.444	15.827	0.38771	-0.2896	-0.1604	-0.0615	0.11703
1e+12	15.591	15.748	15.935	0.16583	15.558	15.722	15.922	0.16113	-0.0614	-0.02545	0.0062	0.02891
5e+12	15.493	15.653	15.812	0.17646	15.458	15.645	15.828	0.20945	-0.0491	-0.00795	0.0298	0.035443
1e+13	15.291	15.382	15.447	0.067321	15.266	15.357	15.512	0.10681	-0.0894	-0.024975	0.0647	0.065367

Device Test: 205.3 I_SHDN(SUPPLY_CURRENT|POST/VIN/SHUTDOWN///6.3/@I_SHDN)





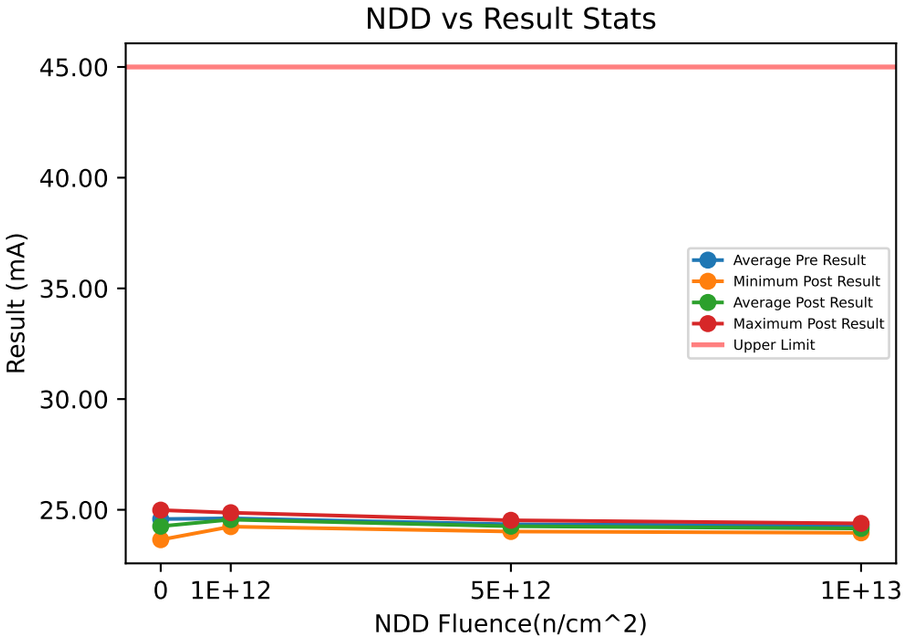
Test Results (Upper Limit = 1.5 (mA))

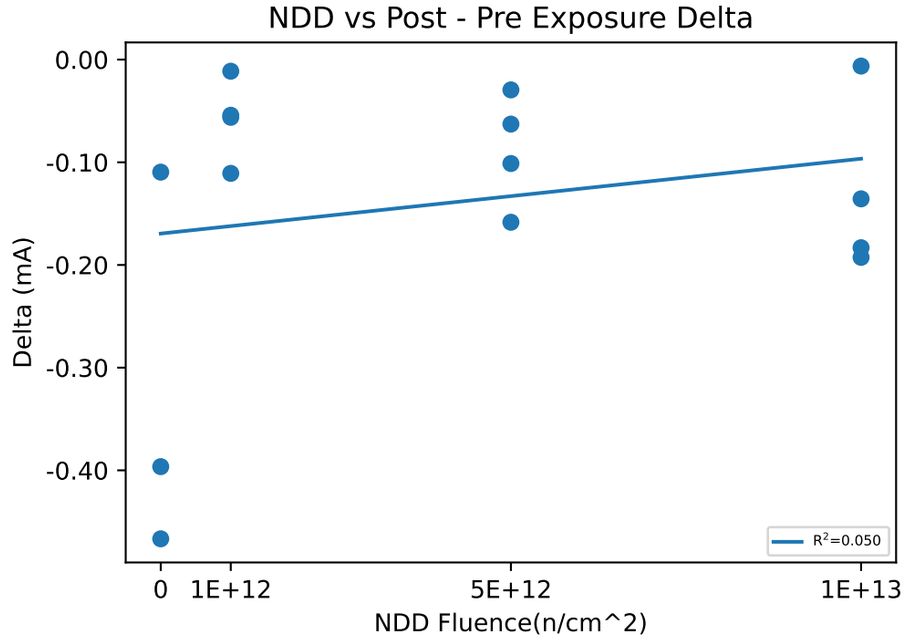
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.8045	0.7453	-0.0592
2	0	CU2	0.736	0.7482	0.0122
3	0	CU3	0.7218	0.7812	0.0594
10	1e+12	1E12n/cm2	0.7926	0.7938	0.0012
11	1e+12	1E12n/cm2	0.6948	0.6946	-0.0002
12	1e+12	1E12n/cm2	0.7631	0.762	-0.0011
13	1e+12	1E12n/cm2	0.718	0.7177	-0.0003
20	5e+12	5E12n/cm2	0.7341	0.7377	0.0036
21	5e+12	5E12n/cm2	0.7891	0.7914	0.0023
22	5e+12	5E12n/cm2	0.7643	0.7646	0.0003
23	5e+12	5E12n/cm2	0.773	0.7767	0.0037
30	1e+13	1E13n/cm2	0.7143	0.7179	0.0036
31	1e+13	1E13n/cm2	0.7959	0.8057	0.0098
32	1e+13	1E13n/cm2	0.771	0.7789	0.0079
33	1e+13	1E13n/cm2	0.7152	0.7155	0.0003

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.7218	0.7541	0.8045	0.044221	0.7453	0.75823	0.7812	0.019943	-0.0592	0.0041333	0.0594	0.05971
1e+12	0.6948	0.74212	0.7926	0.044005	0.6946	0.74202	0.7938	0.044424	-0.0011	-0.0001	0.0012	0.00095568
5e+12	0.7341	0.76513	0.7891	0.023094	0.7377	0.7676	0.7914	0.022747	0.0003	0.002475	0.0037	0.001584
1e+13	0.7143	0.7491	0.7959	0.040948	0.7155	0.7545	0.8057	0.045009	0.0003	0.0054	0.0098	0.0042763

Device Test: 205.4 IQ_VIN(SUPPLY_CURRENT|POST/VIN/QUIESCENT///6.3/@IQ_VIN)





Test Results (Upper Limit = 45.0 (mA))

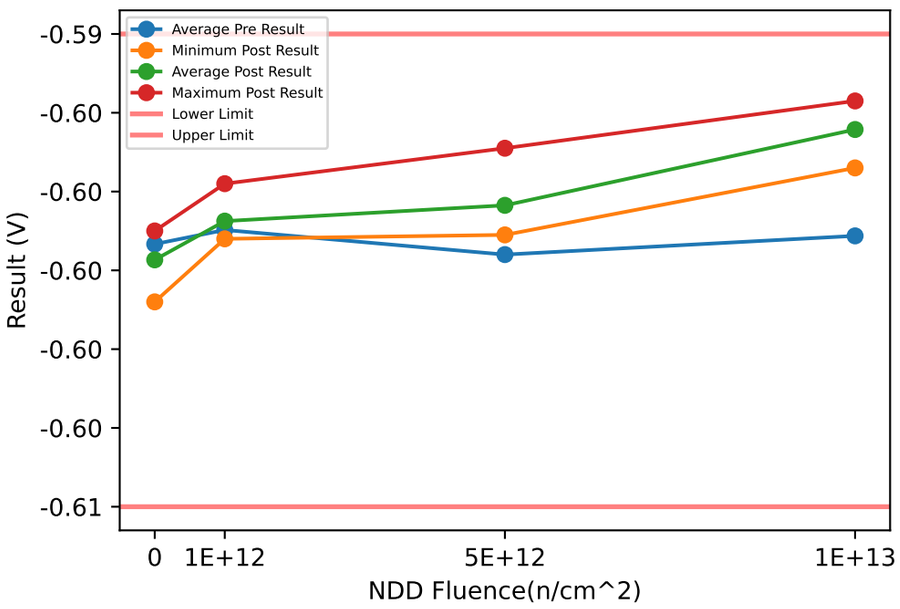
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	24.115	23.648	-0.4667
2	0	CU2	25.095	24.985	-0.1096
3	0	CU3	24.536	24.14	-0.3964
10	1e+12	1E12n/cm2	24.855	24.799	-0.0562
11	1e+12	1E12n/cm2	24.249	24.238	-0.0113
12	1e+12	1E12n/cm2	24.372	24.318	-0.0542
13	1e+12	1E12n/cm2	24.979	24.868	-0.1108
20	5e+12	5E12n/cm2	24.177	24.018	-0.1584
21	5e+12	5E12n/cm2	24.443	24.38	-0.0628
22	5e+12	5E12n/cm2	24.555	24.525	-0.0295
23	5e+12	5E12n/cm2	24.205	24.104	-0.1012
30	1e+13	1E13n/cm2	24.39	24.384	-0.0063
31	1e+13	1E13n/cm2	24.142	23.959	-0.1832
32	1e+13	1E13n/cm2	24.383	24.19	-0.1926
33	1e+13	1E13n/cm2	24.226	24.09	-0.1356

Test Statistics (mA)

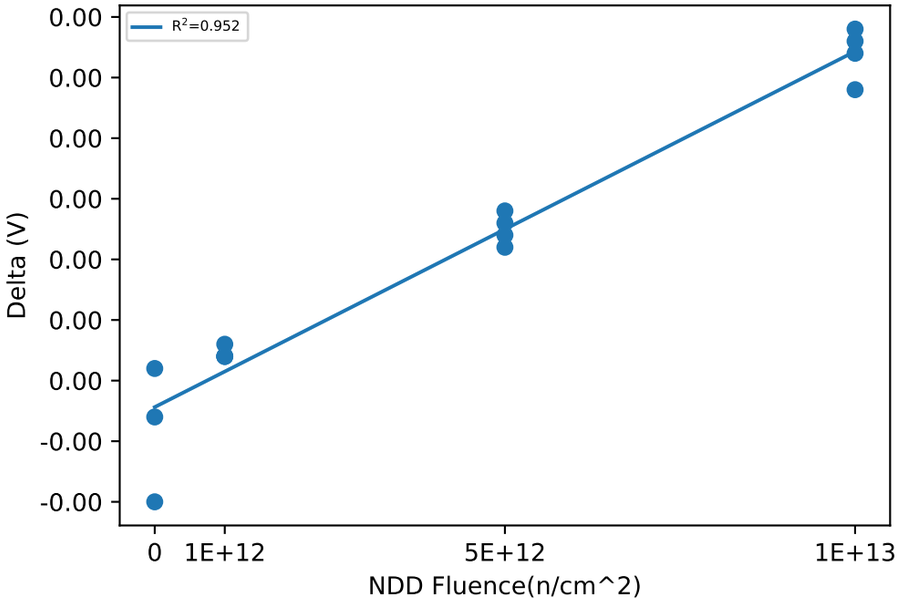
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	24.115	24.582	25.095	0.49165	23.648	24.258	24.985	0.67636	-0.4667	-0.32423	-0.1096	0.18917
1e+12	24.249	24.614	24.979	0.35729	24.238	24.556	24.868	0.32371	-0.1108	-0.058125	-0.0113	0.040769
5e+12	24.177	24.345	24.555	0.1841	24.018	24.257	24.525	0.23648	-0.1584	-0.087975	-0.0295	0.05534
1e+13	24.142	24.285	24.39	0.12192	23.959	24.156	24.384	0.17922	-0.1926	-0.12942	-0.0063	0.085792

Device Test: 30.1 VREF(VREF|/VREF//0N6V//3/@VREF)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



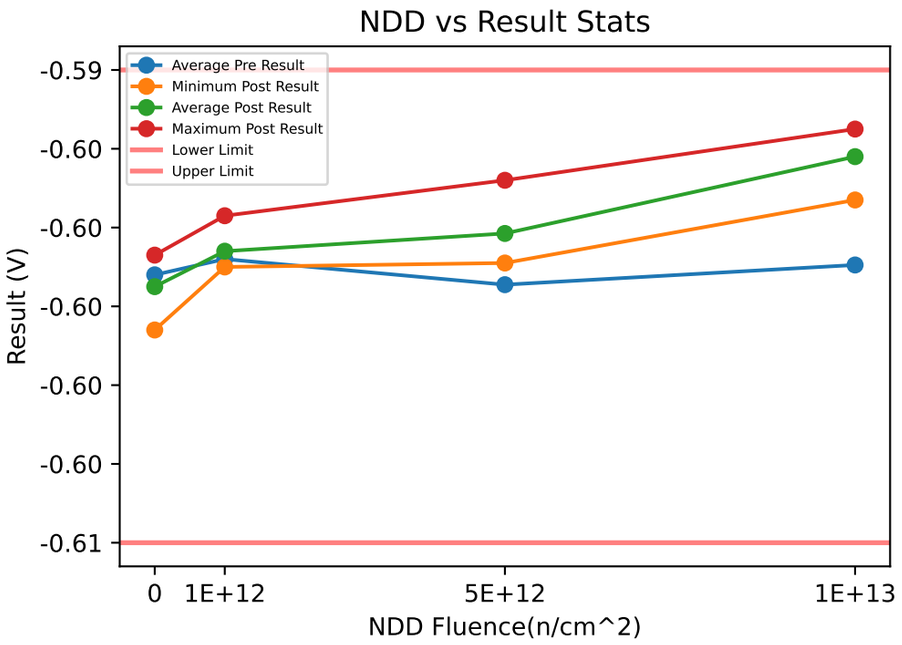
Test Results (Lower Limit = -0.606, Upper Limit = -0.594 (V))

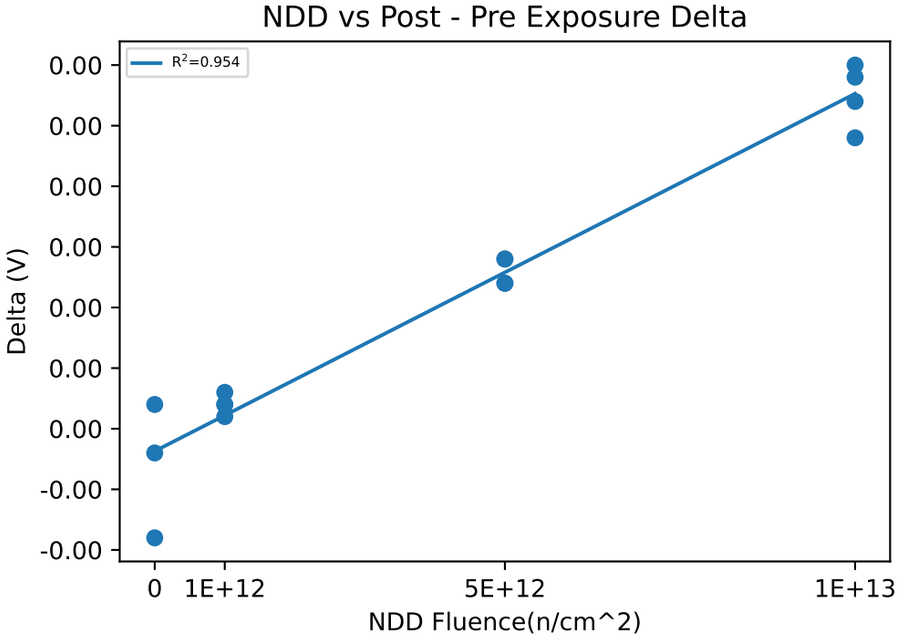
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	-0.5991	-0.599	0.0001
2	0	CU2	-0.5991	-0.5994	-0.0003
3	0	CU3	-0.5998	-0.6008	-0.001
10	1e+12	1E12n/cm2	-0.5993	-0.5991	0.0002
11	1e+12	1E12n/cm2	-0.598	-0.5978	0.0002
12	1e+12	1E12n/cm2	-0.5995	-0.5992	0.0003
13	1e+12	1E12n/cm2	-0.5991	-0.5989	0.0002
20	5e+12	5E12n/cm2	-0.5983	-0.5969	0.0014
21	5e+12	5E12n/cm2	-0.5999	-0.5986	0.0013
22	5e+12	5E12n/cm2	-0.5999	-0.5988	0.0011
23	5e+12	5E12n/cm2	-0.6003	-0.5991	0.0012
30	1e+13	1E13n/cm2	-0.5998	-0.5974	0.0024
31	1e+13	1E13n/cm2	-0.5993	-0.5964	0.0029
32	1e+13	1E13n/cm2	-0.599	-0.5962	0.0028
33	1e+13	1E13n/cm2	-0.5984	-0.5957	0.0027

Test Statistics (V)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.5998	-0.59933	-0.5991	0.00040415	-0.6008	-0.59973	-0.599	0.00094516	-0.001	-0.0004	0.0001	0.00055678
1e+12	-0.5995	-0.59898	-0.598	0.0006702	-0.5992	-0.59875	-0.5978	0.0006455	0.0002	0.000225	0.0003	5e-05
5e+12	-0.6003	-0.5996	-0.5983	0.00088694	-0.5991	-0.59835	-0.5969	0.00098826	0.0011	0.00125	0.0014	0.0001291
1e+13	-0.5998	-0.59913	-0.5984	0.00058523	-0.5974	-0.59642	-0.5957	0.00071356	0.0024	0.0027	0.0029	0.00021602

Device Test: 30.2 VREF(VREF|/VREF//1N8V//5/@VREF)





Test Results (Lower Limit = -0.606, Upper Limit = -0.594 (V))

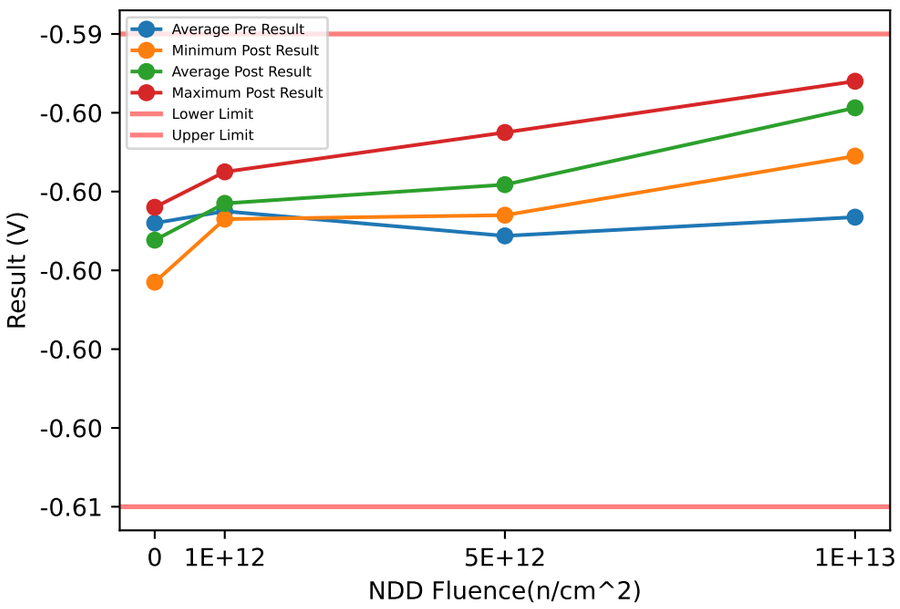
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	-0.5989	-0.5987	0.0002
2	0	CU2	-0.599	-0.5992	-0.0002
3	0	CU3	-0.5997	-0.6006	-0.0009
10	1e+12	1E12n/cm2	-0.5991	-0.5989	0.0002
11	1e+12	1E12n/cm2	-0.5978	-0.5977	0.0001
12	1e+12	1E12n/cm2	-0.5993	-0.599	0.0003
13	1e+12	1E12n/cm2	-0.599	-0.5988	0.0002
20	5e+12	5E12n/cm2	-0.5982	-0.5968	0.0014
21	5e+12	5E12n/cm2	-0.5997	-0.5983	0.0014
22	5e+12	5E12n/cm2	-0.5998	-0.5986	0.0012
23	5e+12	5E12n/cm2	-0.6001	-0.5989	0.0012
30	1e+13	1E13n/cm2	-0.5997	-0.5973	0.0024
31	1e+13	1E13n/cm2	-0.5991	-0.5961	0.003
32	1e+13	1E13n/cm2	-0.5988	-0.5959	0.0029
33	1e+13	1E13n/cm2	-0.5982	-0.5955	0.0027

Test Statistics (V)

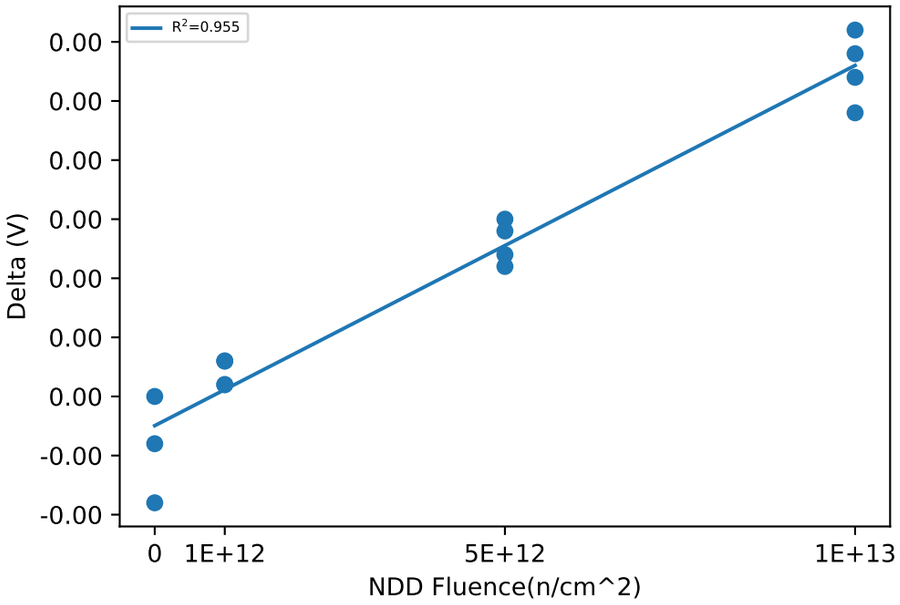
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.5997	-0.5992	-0.5989	0.00043589	-0.6006	-0.5995	-0.5987	0.00098489	-0.0009	-0.0003	0.0002	0.00055678
1e+12	-0.5993	-0.5988	-0.5978	0.00067823	-0.599	-0.5986	-0.5977	0.00060553	0.0001	0.0002	0.0003	8.165e-05
5e+12	-0.6001	-0.59945	-0.5982	0.00085049	-0.5989	-0.59815	-0.5968	0.00093274	0.0012	0.0013	0.0014	0.00011547
1e+13	-0.5997	-0.59895	-0.5982	0.0006245	-0.5973	-0.5962	-0.5955	0.0007746	0.0024	0.00275	0.003	0.00026458

Device Test: 30.3 VREF(VREF|/VREF//6N0V//6.3/@VREF)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



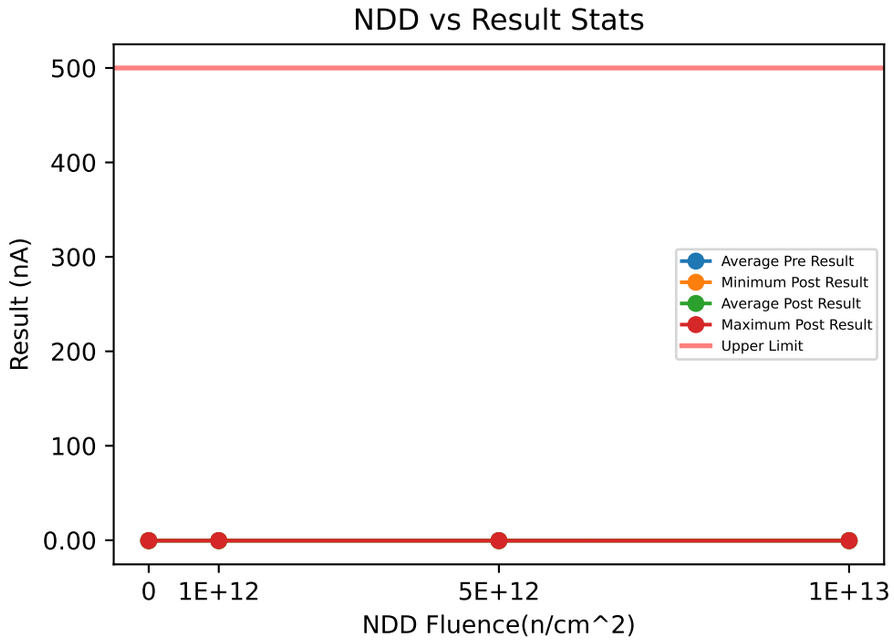
Test Results (Lower Limit = -0.606, Upper Limit = -0.594 (V))

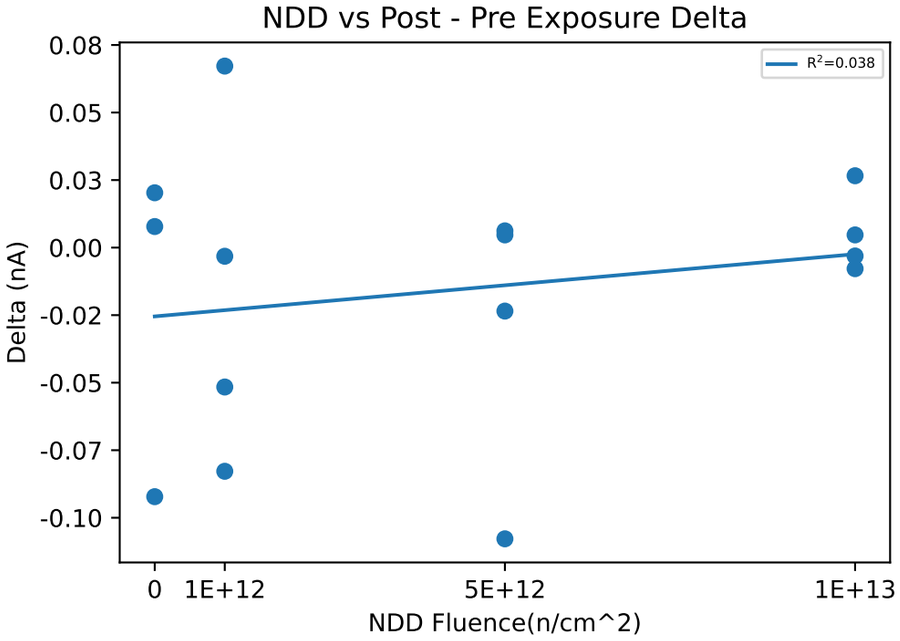
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	-0.5984	-0.5984	0
2	0	CU2	-0.5986	-0.599	-0.0004
3	0	CU3	-0.5994	-0.6003	-0.0009
10	1e+12	1E12n/cm2	-0.5987	-0.5984	0.0003
11	1e+12	1E12n/cm2	-0.5976	-0.5975	0.0001
12	1e+12	1E12n/cm2	-0.599	-0.5987	0.0003
13	1e+12	1E12n/cm2	-0.5987	-0.5986	0.0001
20	5e+12	5E12n/cm2	-0.598	-0.5965	0.0015
21	5e+12	5E12n/cm2	-0.5993	-0.5979	0.0014
22	5e+12	5E12n/cm2	-0.5994	-0.5983	0.0011
23	5e+12	5E12n/cm2	-0.5998	-0.5986	0.0012
30	1e+13	1E13n/cm2	-0.5995	-0.5971	0.0024
31	1e+13	1E13n/cm2	-0.5987	-0.5956	0.0031
32	1e+13	1E13n/cm2	-0.5985	-0.5956	0.0029
33	1e+13	1E13n/cm2	-0.5979	-0.5952	0.0027

Test Statistics (V)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.5994	-0.5988	-0.5984	0.00052915	-0.6003	-0.59923	-0.5984	0.00097125	-0.0009	-0.00043333	0	0.00045092
1e+12	-0.599	-0.5985	-0.5976	0.00061644	-0.5987	-0.5983	-0.5975	0.00054772	0.0001	0.0002	0.0003	0.00011547
5e+12	-0.5998	-0.59913	-0.598	0.00078049	-0.5986	-0.59783	-0.5965	0.00092871	0.0011	0.0013	0.0015	0.00018257
1e+13	-0.5995	-0.59865	-0.5979	0.00066081	-0.5971	-0.59587	-0.5952	0.00083815	0.0024	0.002775	0.0031	0.00029861

Device Test: 31.1 I_FB(LEAK|/FB/CURRENT////@I_FB)





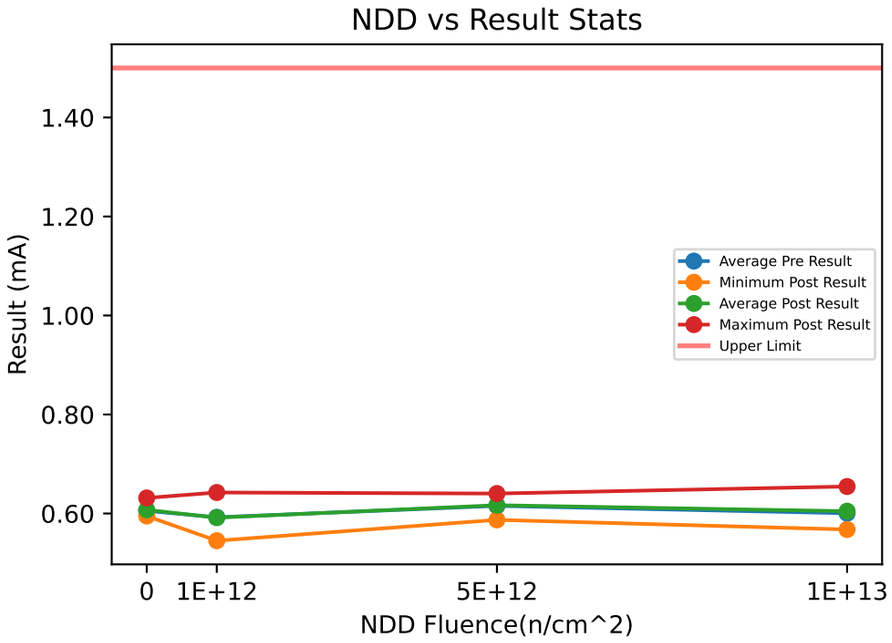
Test Results (Upper Limit = 500.0 (nA))

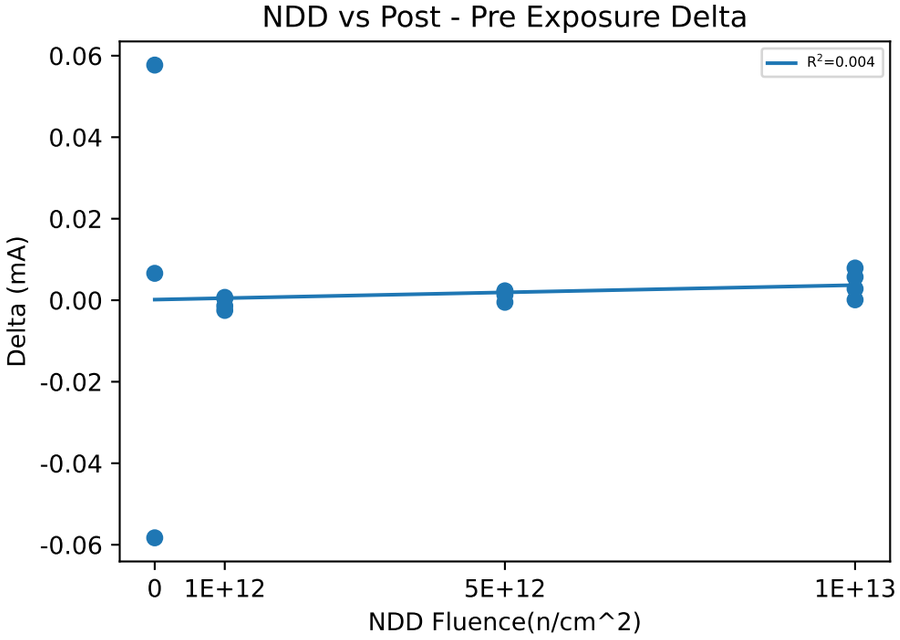
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	-0.4637	-0.4559	0.0078
2	0	CU2	-0.4074	-0.4996	-0.0922
3	0	CU3	-0.4465	-0.4262	0.0203
10	1e+12	1E12n/cm2	-0.4449	-0.3777	0.0672
11	1e+12	1E12n/cm2	-0.4246	-0.5074	-0.0828
12	1e+12	1E12n/cm2	-0.4027	-0.4543	-0.0516
13	1e+12	1E12n/cm2	-0.4574	-0.4606	-0.0032
20	5e+12	5E12n/cm2	-0.4387	-0.434	0.0047
21	5e+12	5E12n/cm2	-0.4277	-0.4215	0.0062
22	5e+12	5E12n/cm2	-0.4215	-0.5293	-0.1078
23	5e+12	5E12n/cm2	-0.4121	-0.4356	-0.0235
30	1e+13	1E13n/cm2	-0.4293	-0.4324	-0.0031
31	1e+13	1E13n/cm2	-0.4715	-0.4449	0.0266
32	1e+13	1E13n/cm2	-0.4215	-0.4168	0.0047
33	1e+13	1E13n/cm2	-0.4387	-0.4465	-0.0078

Test Statistics (nA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.4637	-0.4392	-0.4074	0.028851	-0.4996	-0.46057	-0.4262	0.036922	-0.0922	-0.021367	0.0203	0.061661
1e+12	-0.4574	-0.4324	-0.4027	0.023973	-0.5074	-0.45	-0.3777	0.053706	-0.0828	-0.0176	0.0672	0.065334
5e+12	-0.4387	-0.425	-0.4121	0.01116	-0.5293	-0.4551	-0.4215	0.049867	-0.1078	-0.0301	0.0062	0.053571
1e+13	-0.4715	-0.44025	-0.4215	0.021988	-0.4465	-0.43515	-0.4168	0.013762	-0.0078	0.0051	0.0266	0.015232

Device Test: 31.2 I_SHDN(SUPPLY_CURRENT|PRE/VIN/SHUTDOWN///3/@I_SHDN)





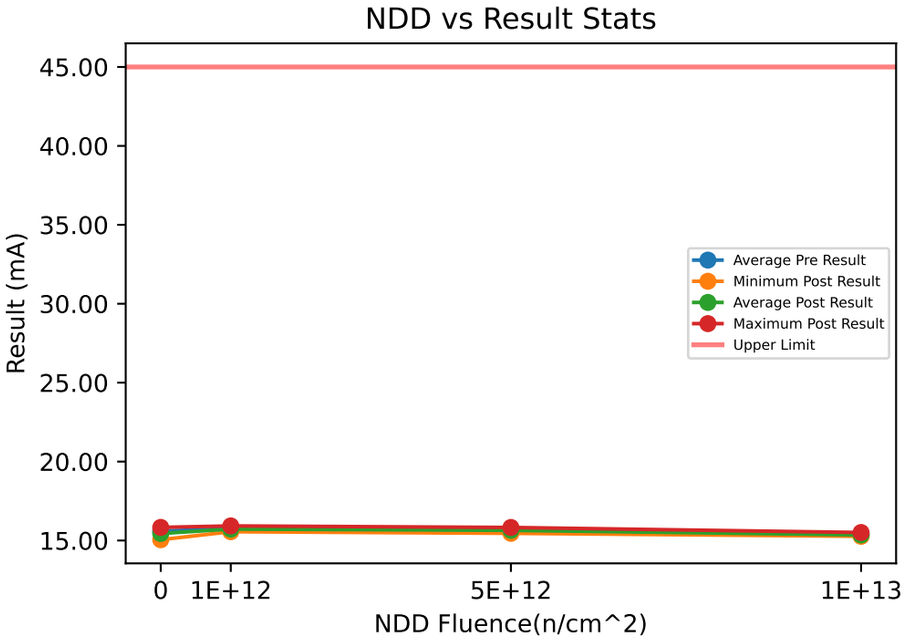
Test Results (Upper Limit = 1.5 (mA))

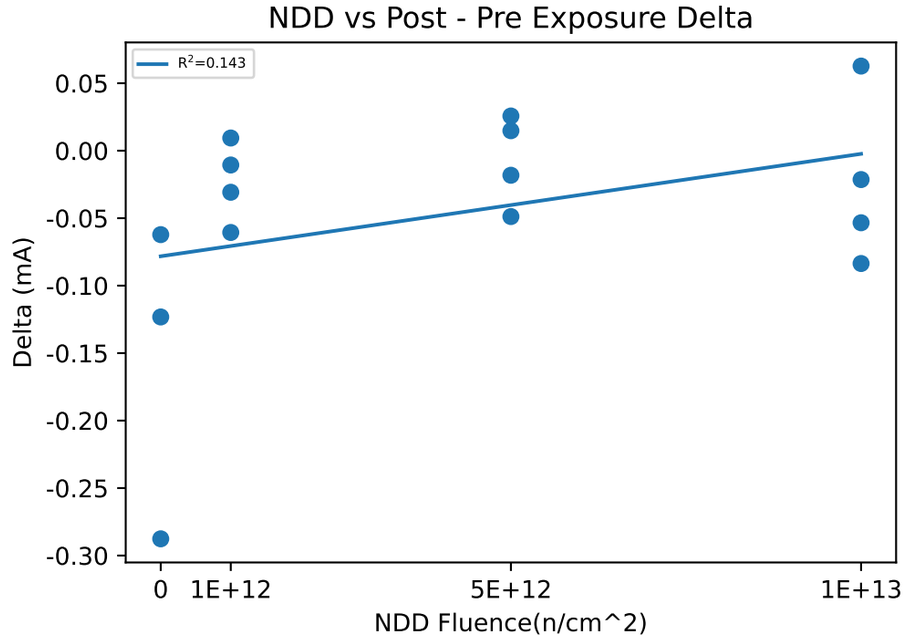
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.6542	0.5959	-0.0583
2	0	CU2	0.5883	0.5949	0.0066
3	0	CU3	0.5737	0.6314	0.0577
10	1e+12	1E12n/cm2	0.6417	0.6424	0.0007
11	1e+12	1E12n/cm2	0.5446	0.545	0.0004
12	1e+12	1E12n/cm2	0.613	0.6105	-0.0025
13	1e+12	1E12n/cm2	0.5699	0.5685	-0.0014
20	5e+12	5E12n/cm2	0.5849	0.5871	0.0022
21	5e+12	5E12n/cm2	0.639	0.6403	0.0013
22	5e+12	5E12n/cm2	0.6143	0.6138	-0.0005
23	5e+12	5E12n/cm2	0.6234	0.6257	0.0023
30	1e+13	1E13n/cm2	0.5649	0.5677	0.0028
31	1e+13	1E13n/cm2	0.6466	0.6545	0.0079
32	1e+13	1E13n/cm2	0.6223	0.628	0.0057
33	1e+13	1E13n/cm2	0.5683	0.5684	0.0001

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5737	0.6054	0.6542	0.042888	0.5949	0.6074	0.6314	0.020791	-0.0583	0.002	0.0577	0.058137
1e+12	0.5446	0.5923	0.6417	0.043382	0.545	0.5916	0.6424	0.043371	-0.0025	-0.0007	0.0007	0.0015166
5e+12	0.5849	0.6154	0.639	0.022748	0.5871	0.61672	0.6403	0.022528	-0.0005	0.001325	0.0023	0.0012971
1e+13	0.5649	0.60052	0.6466	0.040434	0.5677	0.60465	0.6545	0.043626	0.0001	0.004125	0.0079	0.0034004

Device Test: 31.3 IQ_VIN(SUPPLY_CURRENT|PRE/VIN/QUIESCENT///3/@IQ_VIN)





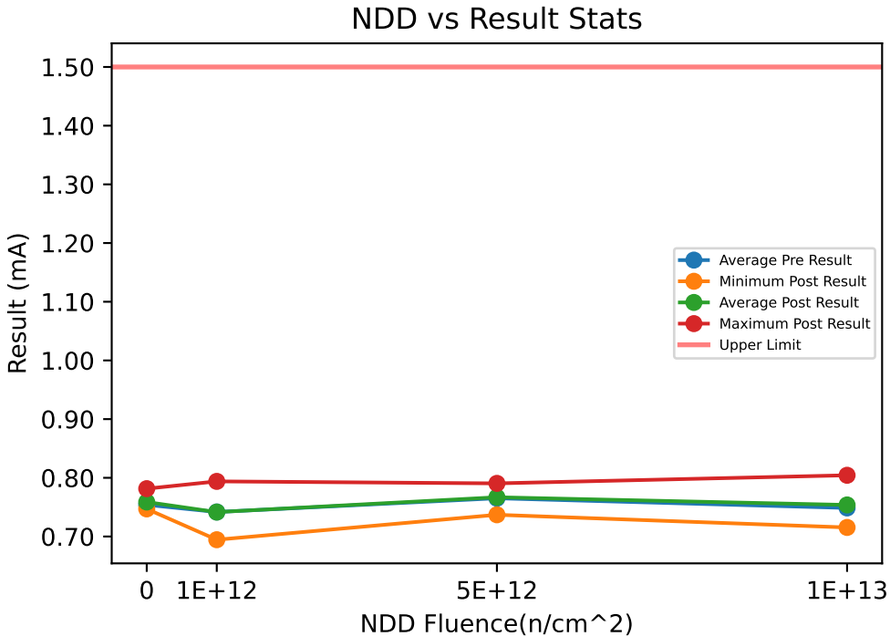
Test Results (Upper Limit = 45.0 (mA))

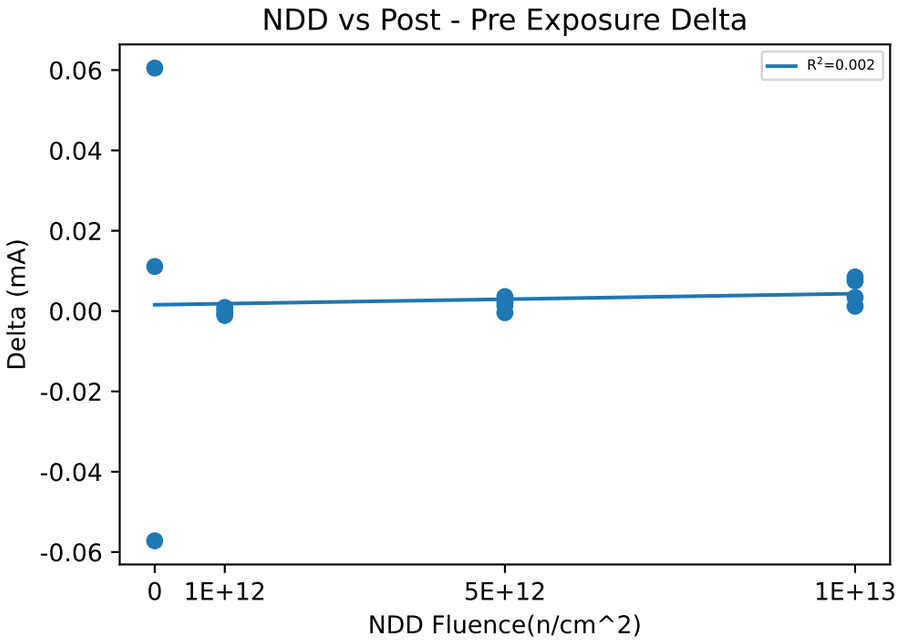
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	15.337	15.05	-0.2876
2	0	CU2	15.954	15.831	-0.1232
3	0	CU3	15.513	15.451	-0.0622
10	1e+12	1E12n/cm2	15.934	15.924	-0.0106
11	1e+12	1E12n/cm2	15.624	15.634	0.0094
12	1e+12	1E12n/cm2	15.587	15.556	-0.0308
13	1e+12	1E12n/cm2	15.837	15.776	-0.0606
20	5e+12	5E12n/cm2	15.489	15.471	-0.0182
21	5e+12	5E12n/cm2	15.811	15.826	0.0148
22	5e+12	5E12n/cm2	15.8	15.825	0.0257
23	5e+12	5E12n/cm2	15.504	15.455	-0.0488
30	1e+13	1E13n/cm2	15.444	15.506	0.0627
31	1e+13	1E13n/cm2	15.37	15.317	-0.0534
32	1e+13	1E13n/cm2	15.41	15.326	-0.0836
33	1e+13	1E13n/cm2	15.288	15.266	-0.0214

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	15.337	15.601	15.954	0.31772	15.05	15.444	15.831	0.3906	-0.2876	-0.15767	-0.0622	0.11659
1e+12	15.587	15.746	15.934	0.1671	15.556	15.723	15.924	0.16215	-0.0606	-0.02315	0.0094	0.029878
5e+12	15.489	15.651	15.811	0.17853	15.455	15.644	15.826	0.20951	-0.0488	-0.006625	0.0257	0.033747
1e+13	15.288	15.378	15.444	0.067135	15.266	15.354	15.506	0.10488	-0.0836	-0.023925	0.0627	0.063088

Device Test: 31.4 I_SHDN(SUPPLY_CURRENT|PRE/VIN/SHUTDOWN///6.3/@I_SHDN)





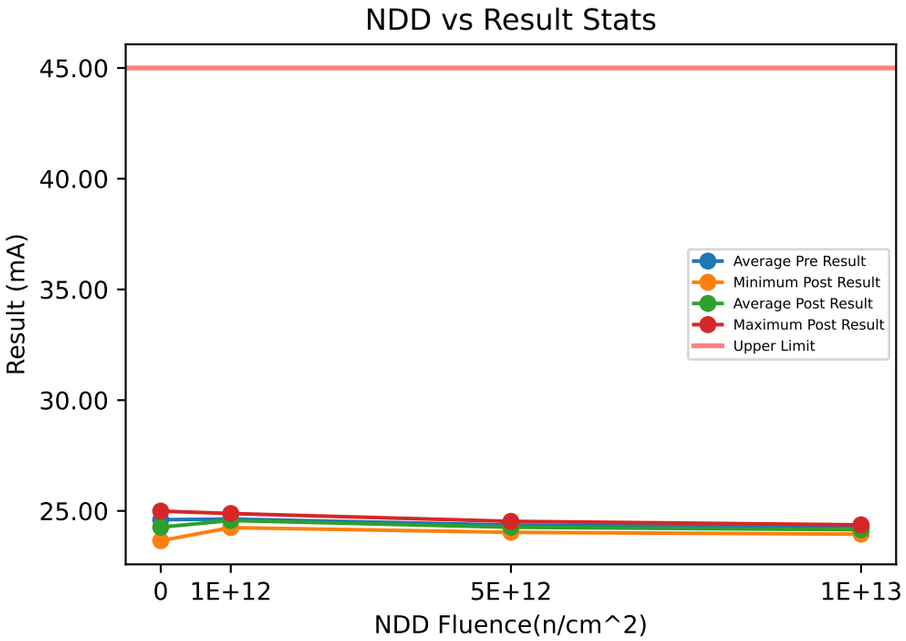
Test Results (Upper Limit = 1.5 (mA))

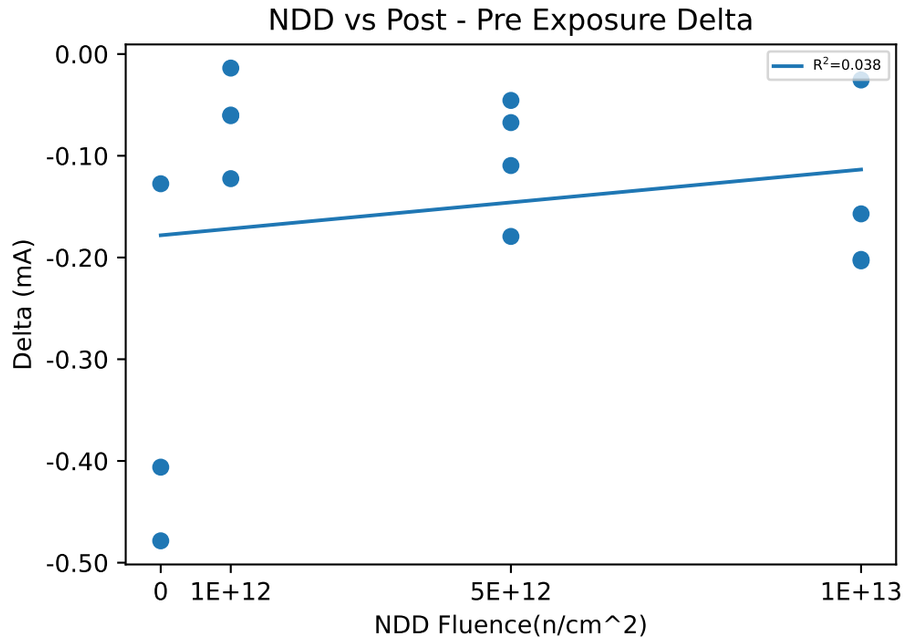
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.8042	0.747	-0.0572
2	0	CU2	0.7366	0.7477	0.0111
3	0	CU3	0.721	0.7815	0.0605
10	1e+12	1E12n/cm2	0.793	0.7939	0.0009
11	1e+12	1E12n/cm2	0.6943	0.6945	0.0002
12	1e+12	1E12n/cm2	0.7623	0.7612	-0.0011
13	1e+12	1E12n/cm2	0.7174	0.7167	-0.0007
20	5e+12	5E12n/cm2	0.7347	0.737	0.0023
21	5e+12	5E12n/cm2	0.7891	0.7905	0.0014
22	5e+12	5E12n/cm2	0.7641	0.7637	-0.0004
23	5e+12	5E12n/cm2	0.7726	0.7762	0.0036
30	1e+13	1E13n/cm2	0.7139	0.7173	0.0034
31	1e+13	1E13n/cm2	0.7958	0.8043	0.0085
32	1e+13	1E13n/cm2	0.7706	0.7781	0.0075
33	1e+13	1E13n/cm2	0.7142	0.7154	0.0012

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.721	0.75393	0.8042	0.044225	0.747	0.75873	0.7815	0.01972	-0.0572	0.0048	0.0605	0.059102
1e+12	0.6943	0.74175	0.793	0.044322	0.6945	0.74157	0.7939	0.044564	-0.0011	-0.000175	0.0009	0.00089954
5e+12	0.7347	0.76513	0.7891	0.022785	0.737	0.76685	0.7905	0.022713	-0.0004	0.001725	0.0036	0.00168
1e+13	0.7139	0.74862	0.7958	0.041228	0.7154	0.75378	0.8043	0.044525	0.0012	0.00515	0.0085	0.0034356

Device Test: 31.5 IQ_VIN(SUPPLY_CURRENT|PRE/VIN/QUIESCENT///6.3/@IQ_VIN)





Test Results (Upper Limit = 45.0 (mA))

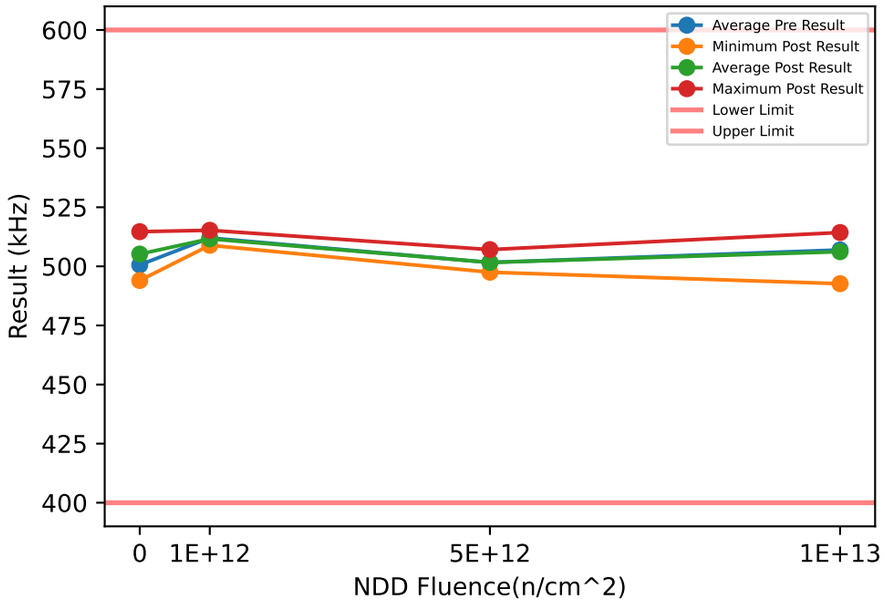
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	24.132	23.654	-0.4785
2	0	CU2	25.119	24.991	-0.1275
3	0	CU3	24.557	24.151	-0.4061
10	1e+12	1E12n/cm2	24.879	24.818	-0.0606
11	1e+12	1E12n/cm2	24.26	24.246	-0.0138
12	1e+12	1E12n/cm2	24.381	24.32	-0.06
13	1e+12	1E12n/cm2	25.004	24.882	-0.1225
20	5e+12	5E12n/cm2	24.212	24.032	-0.1793
21	5e+12	5E12n/cm2	24.456	24.389	-0.0674
22	5e+12	5E12n/cm2	24.574	24.528	-0.0456
23	5e+12	5E12n/cm2	24.208	24.099	-0.1096
30	1e+13	1E13n/cm2	24.396	24.37	-0.0255
31	1e+13	1E13n/cm2	24.152	23.949	-0.2033
32	1e+13	1E13n/cm2	24.388	24.186	-0.2019
33	1e+13	1E13n/cm2	24.242	24.085	-0.1571

Test Statistics (mA)

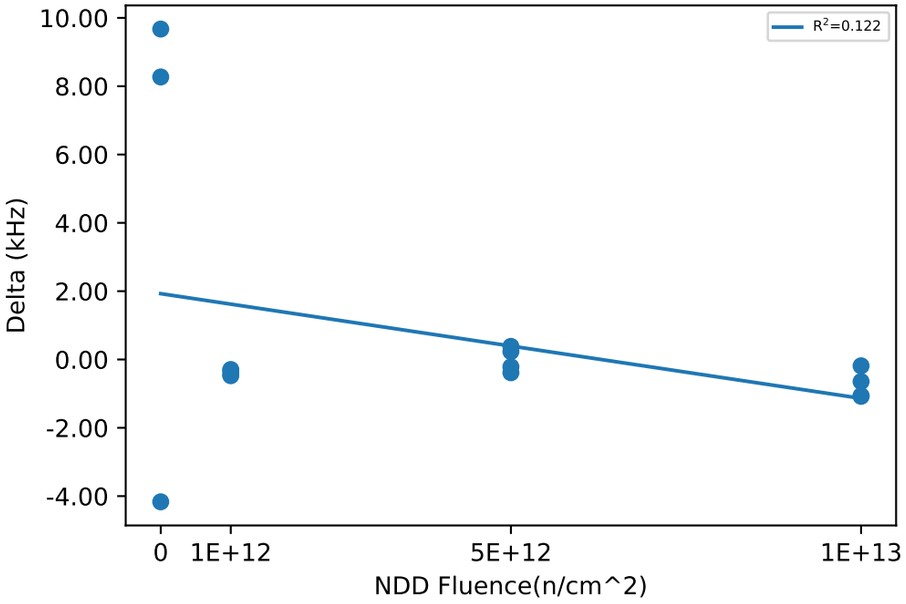
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	24.132	24.603	25.119	0.49481	23.654	24.265	24.991	0.67601	-0.4785	-0.33737	-0.1275	0.18532
1e+12	24.26	24.631	25.004	0.36565	24.246	24.567	24.882	0.32957	-0.1225	-0.064225	-0.0138	0.044608
5e+12	24.208	24.362	24.574	0.18256	24.032	24.262	24.528	0.2355	-0.1793	-0.10047	-0.0456	0.058884
1e+13	24.152	24.295	24.396	0.11832	23.949	24.148	24.37	0.17746	-0.2033	-0.14695	-0.0255	0.083761

Device Test: 35.1 F_SW(SWITCHING_FREQ|/CFLYP///0mA/3/@F_SW)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 400.0, Upper Limit = 600.0 (kHz))

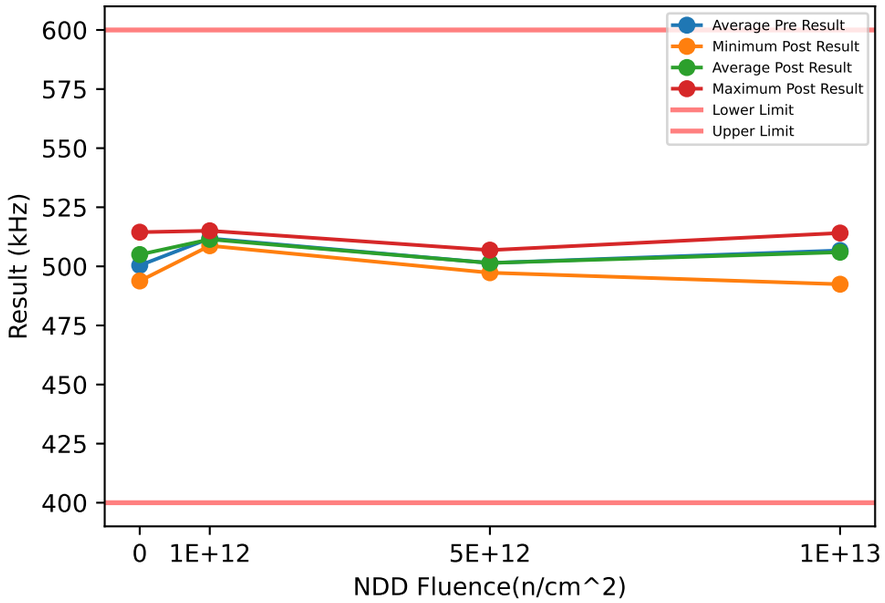
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	498.64	506.91	8.2703
2	0	CU2	505	514.67	9.6721
3	0	CU3	498.19	494.02	-4.1665
10	1e+12	1E12n/cm2	515.59	515.26	-0.3286
11	1e+12	1E12n/cm2	509.34	508.9	-0.4386
12	1e+12	1E12n/cm2	513.04	512.75	-0.2932
13	1e+12	1E12n/cm2	510.12	509.65	-0.4748
20	5e+12	5E12n/cm2	501.55	501.78	0.2319
21	5e+12	5E12n/cm2	500.42	500.2	-0.2142
22	5e+12	5E12n/cm2	506.7	507.09	0.3836
23	5e+12	5E12n/cm2	497.9	497.51	-0.3876
30	1e+13	1E13n/cm2	515.36	514.31	-1.0586
31	1e+13	1E13n/cm2	493.74	492.66	-1.0782
32	1e+13	1E13n/cm2	508.56	507.91	-0.646
33	1e+13	1E13n/cm2	510.09	509.9	-0.1855

Test Statistics (kHz)

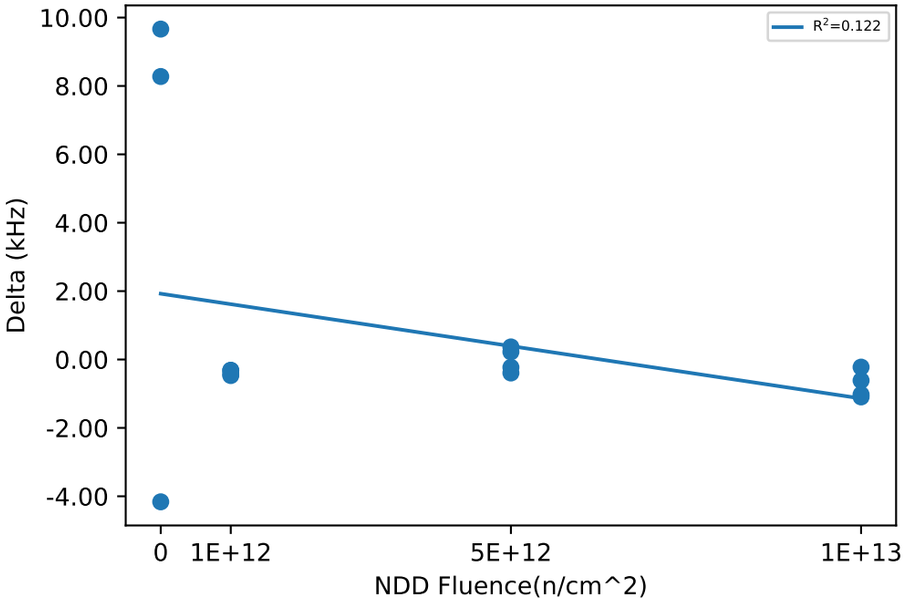
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	498.19	500.61	505	3.8062	494.02	505.2	514.67	10.429	-4.1665	4.592	9.6721	7.6174
1e+12	509.34	512.02	515.59	2.8601	508.9	511.64	515.26	2.9315	-0.4748	-0.3838	-0.2932	0.086678
5e+12	497.9	501.64	506.7	3.7035	497.51	501.65	507.09	4.0336	-0.3876	0.003425	0.3836	0.36377
1e+13	493.74	506.94	515.36	9.2691	492.66	506.2	514.31	9.4099	-1.0782	-0.74207	-0.1855	0.42118

Device Test: 35.2 F_SW(SWITCHING_FREQ|/CFLYP///10mA/3/@F_SW)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 400.0, Upper Limit = 600.0 (kHz))

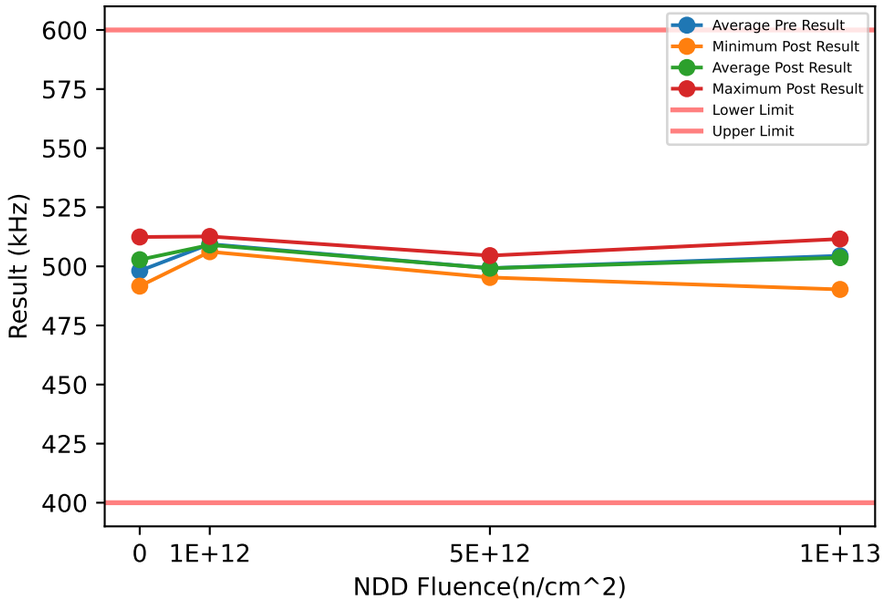
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	498.44	506.71	8.2762
2	0	CU2	504.79	514.45	9.6635
3	0	CU3	497.97	493.81	-4.162
10	1e+12	1E12n/cm2	515.36	515.04	-0.3182
11	1e+12	1E12n/cm2	509.14	508.72	-0.4282
12	1e+12	1E12n/cm2	512.82	512.51	-0.315
13	1e+12	1E12n/cm2	509.88	509.41	-0.4687
20	5e+12	5E12n/cm2	501.32	501.54	0.2225
21	5e+12	5E12n/cm2	500.23	500	-0.2291
22	5e+12	5E12n/cm2	506.5	506.87	0.3674
23	5e+12	5E12n/cm2	497.7	497.3	-0.394
30	1e+13	1E13n/cm2	515.12	514.1	-1.0234
31	1e+13	1E13n/cm2	493.53	492.44	-1.0939
32	1e+13	1E13n/cm2	508.33	507.71	-0.6135
33	1e+13	1E13n/cm2	509.88	509.65	-0.223

Test Statistics (kHz)

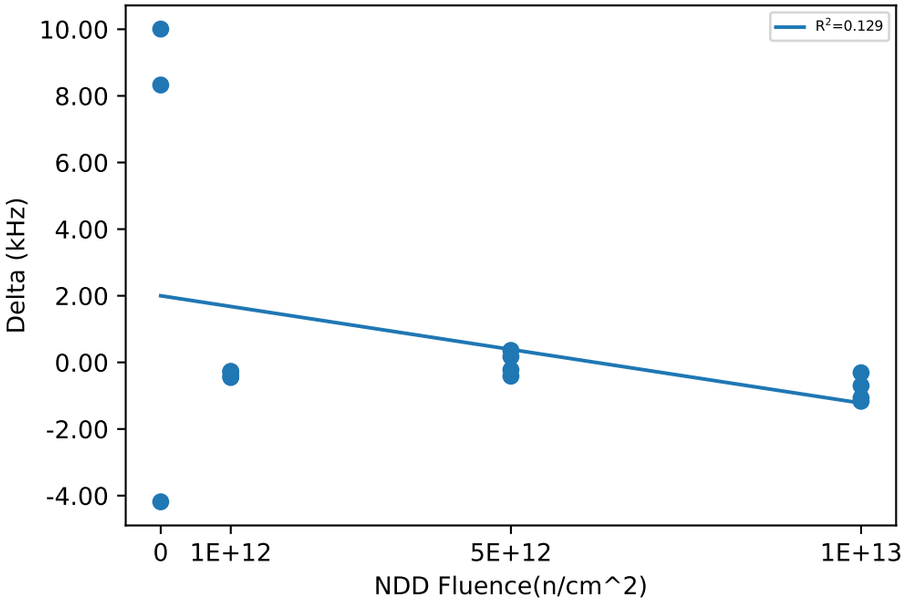
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	497.97	500.4	504.79	3.8114	493.81	504.99	514.45	10.431	-4.162	4.5926	9.6635	7.6133
1e+12	509.14	511.8	515.36	2.8566	508.72	511.42	515.04	2.9251	-0.4687	-0.38252	-0.315	0.077909
5e+12	497.7	501.44	506.5	3.7028	497.3	501.43	506.87	4.0288	-0.394	-0.0083	0.3674	0.36145
1e+13	493.53	506.71	515.12	9.2556	492.44	505.97	514.1	9.4116	-1.0939	-0.73845	-0.223	0.40367

Device Test: 35.3 F_SW(SWITCHING_FREQ|/CFLYP///150mA/3/@F_SW)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 400.0, Upper Limit = 600.0 (kHz))

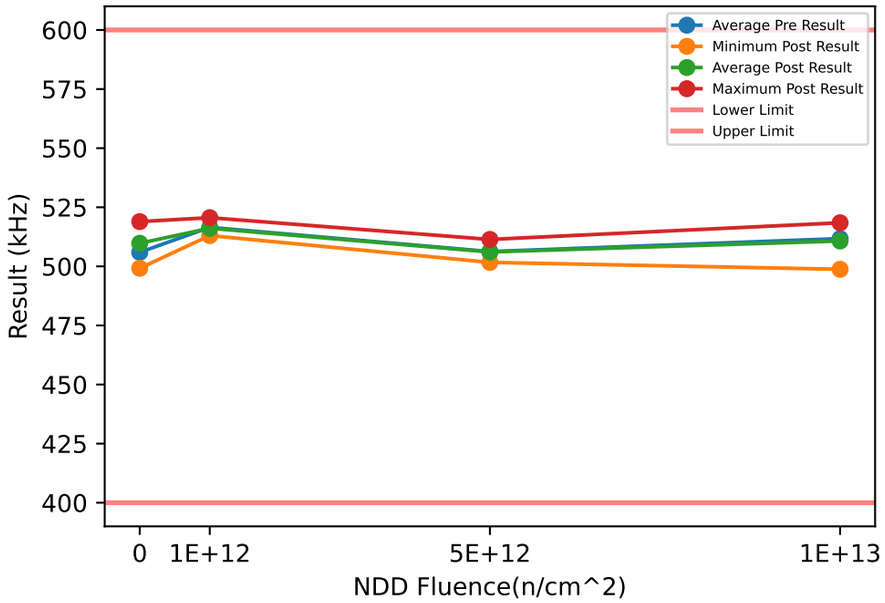
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	496.07	504.4	8.3264
2	0	CU2	502.41	512.42	10.005
3	0	CU3	495.81	491.63	-4.1857
10	1e+12	1E12n/cm2	512.91	512.64	-0.2728
11	1e+12	1E12n/cm2	506.63	506.18	-0.453
12	1e+12	1E12n/cm2	510.53	510.25	-0.2759
13	1e+12	1E12n/cm2	507.53	507.11	-0.4176
20	5e+12	5E12n/cm2	498.95	499.12	0.1696
21	5e+12	5E12n/cm2	498.07	497.85	-0.2224
22	5e+12	5E12n/cm2	504.19	504.54	0.3595
23	5e+12	5E12n/cm2	495.71	495.3	-0.4142
30	1e+13	1E13n/cm2	512.63	511.57	-1.064
31	1e+13	1E13n/cm2	491.4	490.23	-1.1682
32	1e+13	1E13n/cm2	506.24	505.54	-0.7004
33	1e+13	1E13n/cm2	507.62	507.31	-0.3115

Test Statistics (kHz)

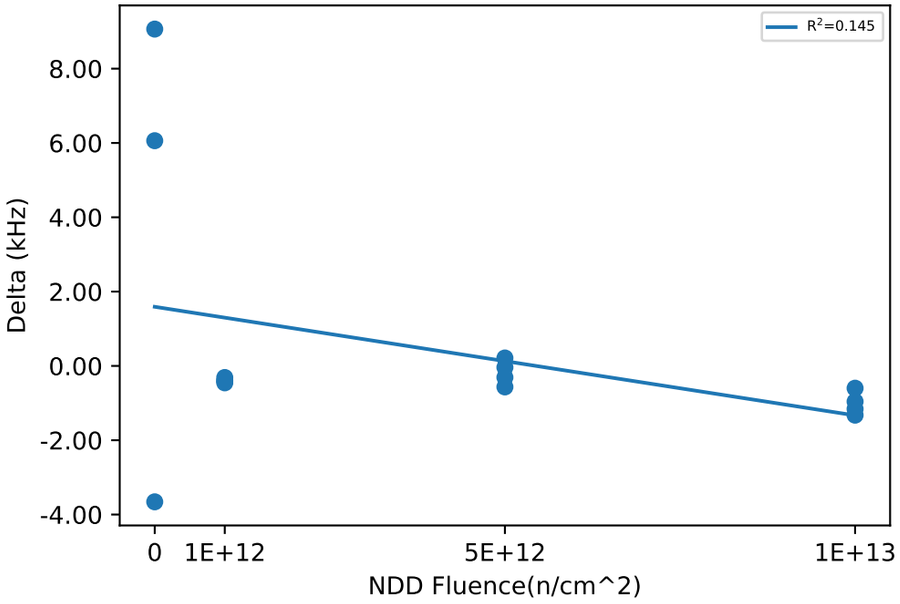
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	495.81	498.1	502.41	3.7388	491.63	502.81	512.42	10.486	-4.1857	4.7154	10.005	7.7541
1e+12	506.63	509.4	512.91	2.8733	506.18	509.05	512.64	2.9623	-0.453	-0.35482	-0.2728	0.09405
5e+12	495.71	499.23	504.19	3.5752	495.3	499.2	504.54	3.8995	-0.4142	-0.026875	0.3595	0.35409
1e+13	491.4	504.47	512.63	9.1387	490.23	503.66	511.57	9.3049	-1.1682	-0.81103	-0.3115	0.38873

Device Test: 35.4 F_SW(SWITCHING_FREQ|/CFLYP///0mA/6.3/@F_SW)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 400.0, Upper Limit = 600.0 (kHz))

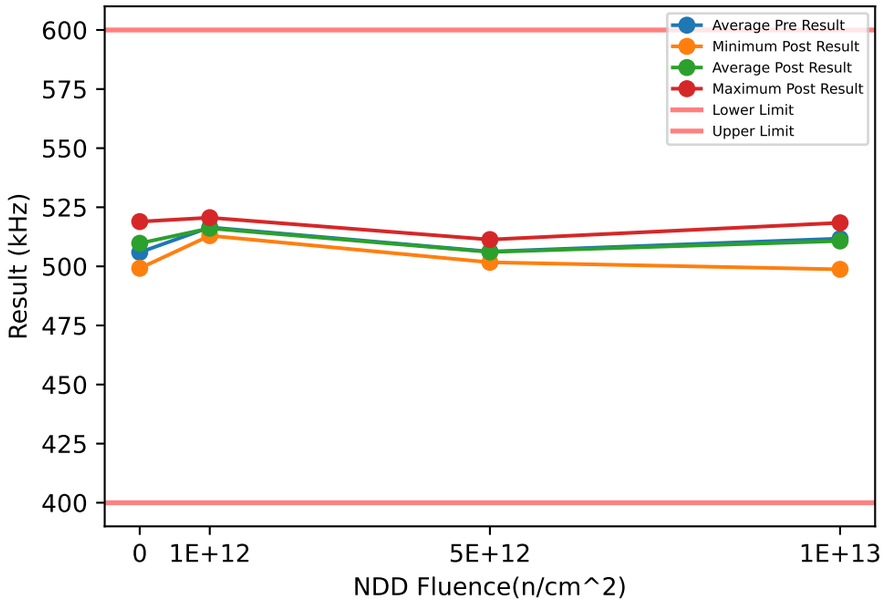
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	505.09	511.15	6.0609
2	0	CU2	509.86	518.92	9.0652
3	0	CU3	502.84	499.18	-3.6576
10	1e+12	1E12n/cm2	520.99	520.59	-0.3911
11	1e+12	1E12n/cm2	513.43	513.02	-0.4087
12	1e+12	1E12n/cm2	517.07	516.76	-0.3122
13	1e+12	1E12n/cm2	514.52	514.07	-0.4551
20	5e+12	5E12n/cm2	506.25	506.21	-0.0391
21	5e+12	5E12n/cm2	505.36	505.05	-0.3089
22	5e+12	5E12n/cm2	511.17	511.38	0.2129
23	5e+12	5E12n/cm2	502.24	501.67	-0.5653
30	1e+13	1E13n/cm2	519.75	518.42	-1.3253
31	1e+13	1E13n/cm2	499.91	498.76	-1.1585
32	1e+13	1E13n/cm2	512.82	511.86	-0.9587
33	1e+13	1E13n/cm2	514.47	513.87	-0.5997

Test Statistics (kHz)

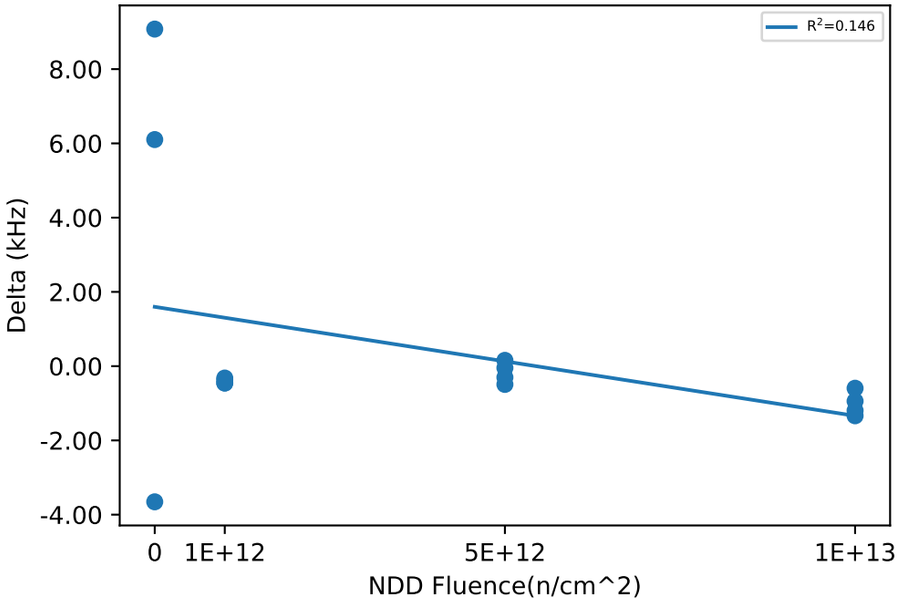
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	502.84	505.93	509.86	3.5828	499.18	509.75	518.92	9.9443	-3.6576	3.8228	9.0652	6.6501
1e+12	513.43	516.5	520.99	3.3556	513.02	516.11	520.59	3.3785	-0.4551	-0.39177	-0.3122	0.059524
5e+12	502.24	506.25	511.17	3.7006	501.67	506.08	511.38	4.0252	-0.5653	-0.1751	0.2129	0.33625
1e+13	499.91	511.74	519.75	8.4187	498.76	510.73	518.42	8.4405	-1.3253	-1.0105	-0.5997	0.31222

Device Test: 35.5 F_SW(SWITCHING_FREQ|/CFLYP///10mA/6.3/@F_SW)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 400.0, Upper Limit = 600.0 (kHz))

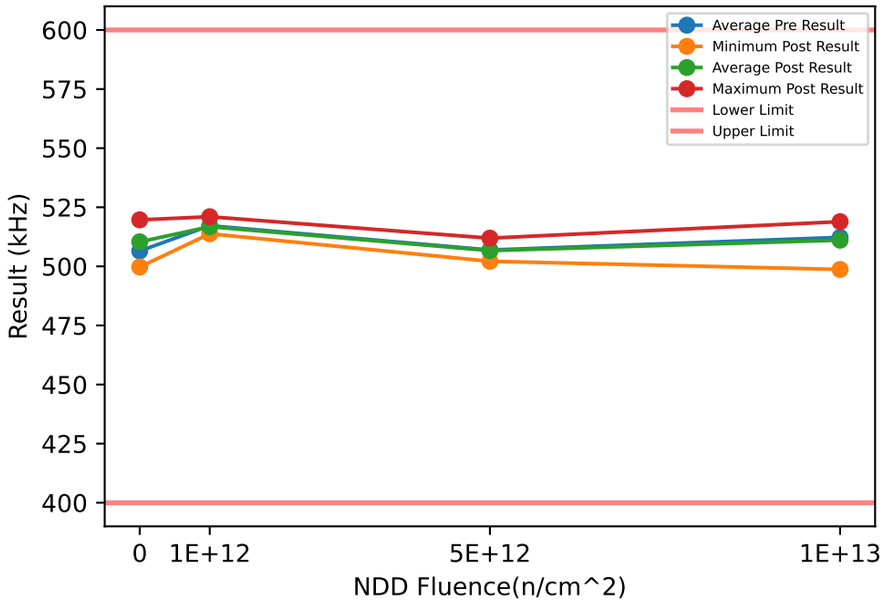
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	505.07	511.17	6.1028
2	0	CU2	509.85	518.93	9.0788
3	0	CU3	502.83	499.17	-3.6543
10	1e+12	1E12n/cm2	520.96	520.59	-0.3693
11	1e+12	1E12n/cm2	513.44	512.98	-0.4549
12	1e+12	1E12n/cm2	517.07	516.75	-0.3207
13	1e+12	1E12n/cm2	514.55	514.09	-0.4524
20	5e+12	5E12n/cm2	506.27	506.22	-0.0464
21	5e+12	5E12n/cm2	505.34	505.04	-0.3019
22	5e+12	5E12n/cm2	511.18	511.33	0.1561
23	5e+12	5E12n/cm2	502.19	501.7	-0.4921
30	1e+13	1E13n/cm2	519.76	518.42	-1.3369
31	1e+13	1E13n/cm2	499.93	498.74	-1.1945
32	1e+13	1E13n/cm2	512.8	511.85	-0.9427
33	1e+13	1E13n/cm2	514.47	513.88	-0.5948

Test Statistics (kHz)

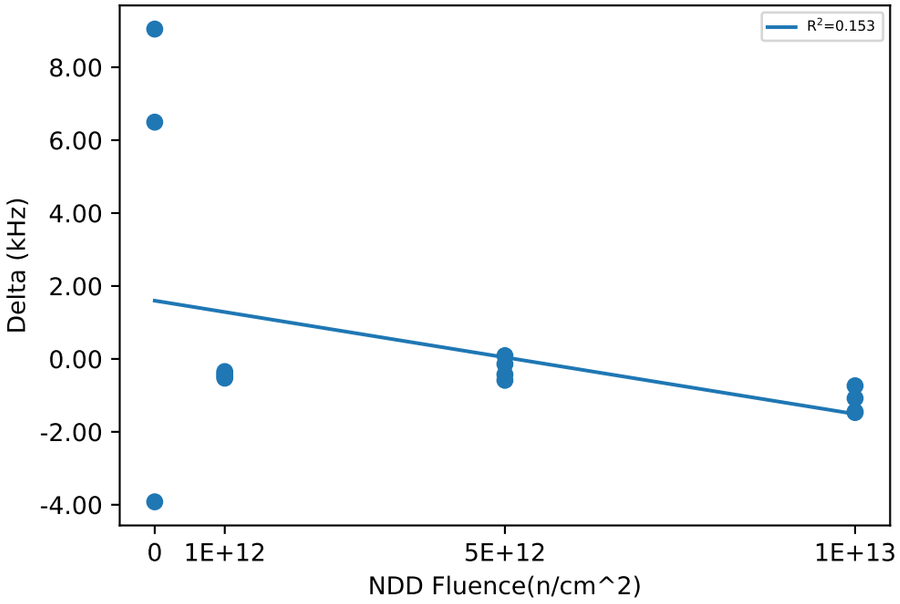
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	502.83	505.92	509.85	3.5887	499.17	509.76	518.93	9.9545	-3.6543	3.8424	9.0788	6.6607
1e+12	513.44	516.5	520.96	3.3395	512.98	516.1	520.59	3.385	-0.4549	-0.39933	-0.3207	0.0658
5e+12	502.19	506.24	511.18	3.7229	501.7	506.07	511.33	3.9957	-0.4921	-0.17107	0.1561	0.28446
1e+13	499.93	511.74	519.76	8.4114	498.74	510.72	518.42	8.4479	-1.3369	-1.0172	-0.5948	0.32538

Device Test: 35.6 F_SW(SWITCHING_FREQ|/CFLYP///400mA/6.3/@F_SW)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



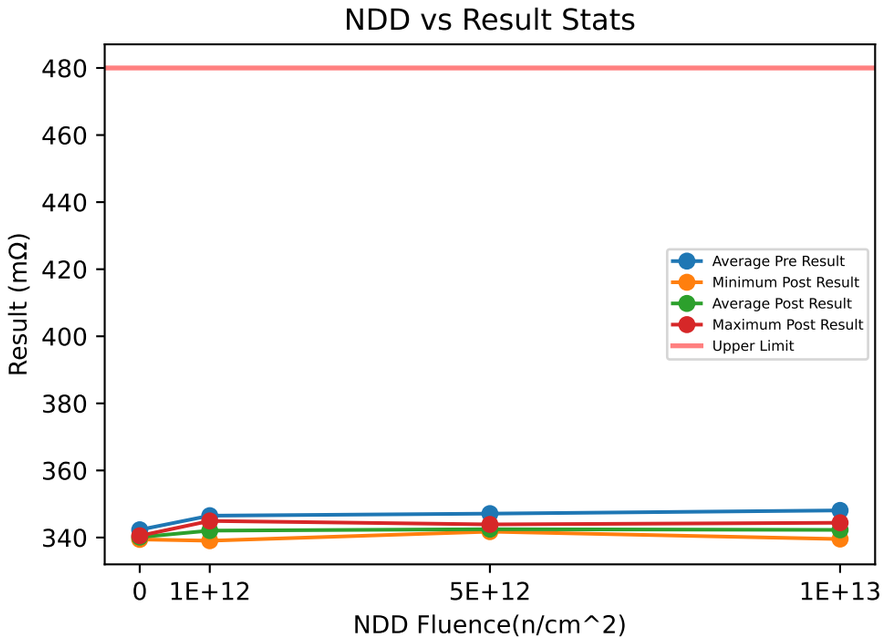
Test Results (Lower Limit = 400.0, Upper Limit = 600.0 (kHz))

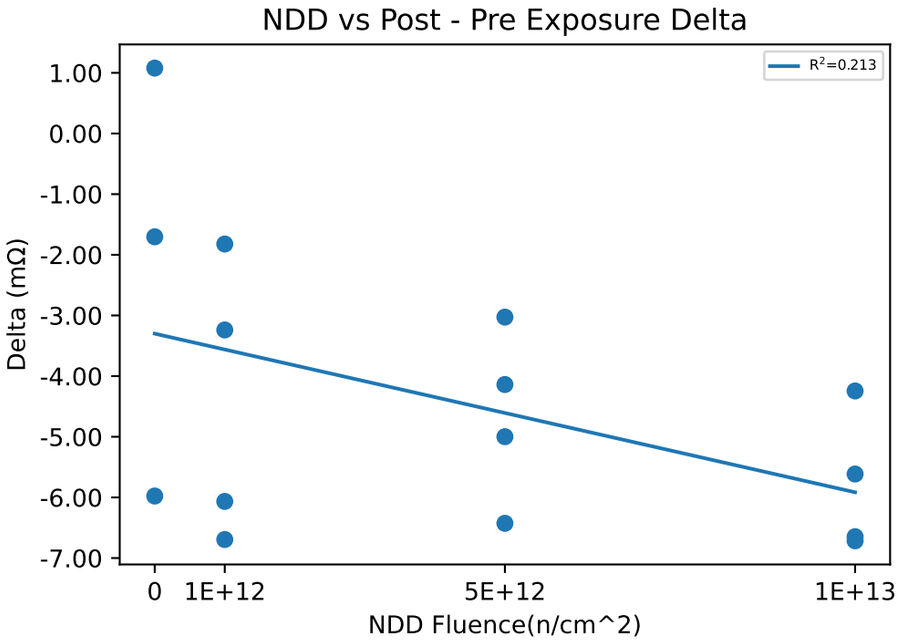
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	505.22	511.72	6.4941
2	0	CU2	510.62	519.67	9.0469
3	0	CU3	503.64	499.72	-3.9196
10	1e+12	1E12n/cm2	521.4	520.99	-0.4049
11	1e+12	1E12n/cm2	514.27	513.79	-0.4764
12	1e+12	1E12n/cm2	517.66	517.32	-0.3474
13	1e+12	1E12n/cm2	515.48	514.95	-0.5276
20	5e+12	5E12n/cm2	507.17	507.03	-0.1408
21	5e+12	5E12n/cm2	505.93	505.5	-0.4278
22	5e+12	5E12n/cm2	511.84	511.93	0.09
23	5e+12	5E12n/cm2	502.73	502.15	-0.5864
30	1e+13	1E13n/cm2	520.37	518.9	-1.4705
31	1e+13	1E13n/cm2	500.14	498.69	-1.445
32	1e+13	1E13n/cm2	513.36	512.28	-1.0806
33	1e+13	1E13n/cm2	515.15	514.42	-0.7365

Test Statistics (kHz)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	503.64	506.5	510.62	3.6596	499.72	510.37	519.67	10.042	-3.9196	3.8738	9.0469	6.8689
1e+12	514.27	517.2	521.4	3.1299	513.79	516.76	520.99	3.1782	-0.5276	-0.43908	-0.3474	0.079167
5e+12	502.73	506.92	511.84	3.7742	502.15	506.65	511.93	4.065	-0.5864	-0.26625	0.09	0.30069
1e+13	500.14	512.26	520.37	8.6084	498.69	511.07	518.9	8.702	-1.4705	-1.1832	-0.7365	0.34696

Device Test: 40.2 SW1_RDSON(RDSON|//SW1////@SW1_RDSON)





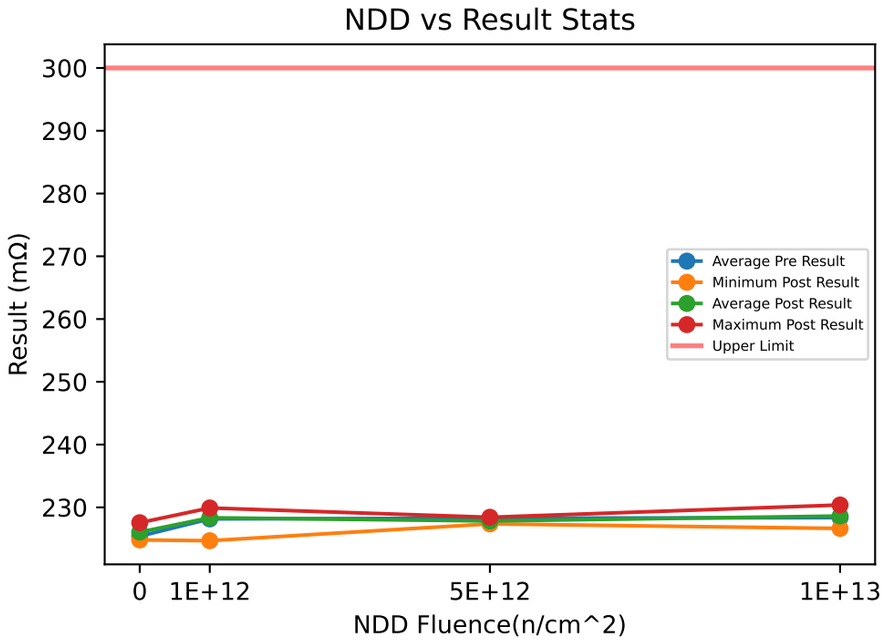
Test Results (Upper Limit = 480.0 (mΩ))

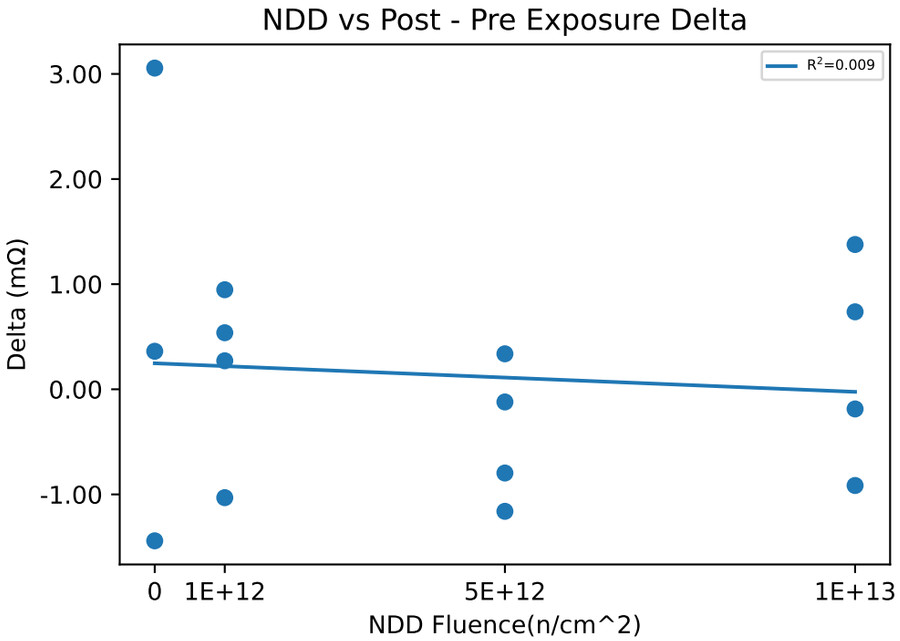
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	346.5	340.52	-5.977
2	0	CU2	338.36	339.44	1.0785
3	0	CU3	342.07	340.37	-1.7034
10	1e+12	1E12n/cm2	348.23	341.54	-6.6943
11	1e+12	1E12n/cm2	345.93	342.69	-3.2392
12	1e+12	1E12n/cm2	351.01	344.94	-6.066
13	1e+12	1E12n/cm2	340.87	339.04	-1.8222
20	5e+12	5E12n/cm2	348.05	343.91	-4.139
21	5e+12	5E12n/cm2	346.75	341.75	-4.9989
22	5e+12	5E12n/cm2	348.45	342.02	-6.4272
23	5e+12	5E12n/cm2	345.26	342.23	-3.0273
30	1e+13	1E13n/cm2	346.19	339.55	-6.6474
31	1e+13	1E13n/cm2	348.64	344.4	-4.245
32	1e+13	1E13n/cm2	348.44	341.73	-6.7157
33	1e+13	1E13n/cm2	349.04	343.43	-5.6143

Test Statistics (mΩ)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	338.36	342.31	346.5	4.0763	339.44	340.11	340.52	0.58725	-5.977	-2.2006	1.0785	3.5539
1e+12	340.87	346.51	351.01	4.296	339.04	342.06	344.94	2.4536	-6.6943	-4.4554	-1.8222	2.3108
5e+12	345.26	347.12	348.45	1.4398	341.75	342.48	343.91	0.97558	-6.4272	-4.6481	-3.0273	1.4346
1e+13	346.19	348.08	349.04	1.2813	339.55	342.27	344.4	2.1265	-6.7157	-5.8056	-4.245	1.156

Device Test: 40.3 SW3_RDSON(RDSON|//SW3////@SW3_RDSON)





Test Results (Upper Limit = 300.0 (mΩ))

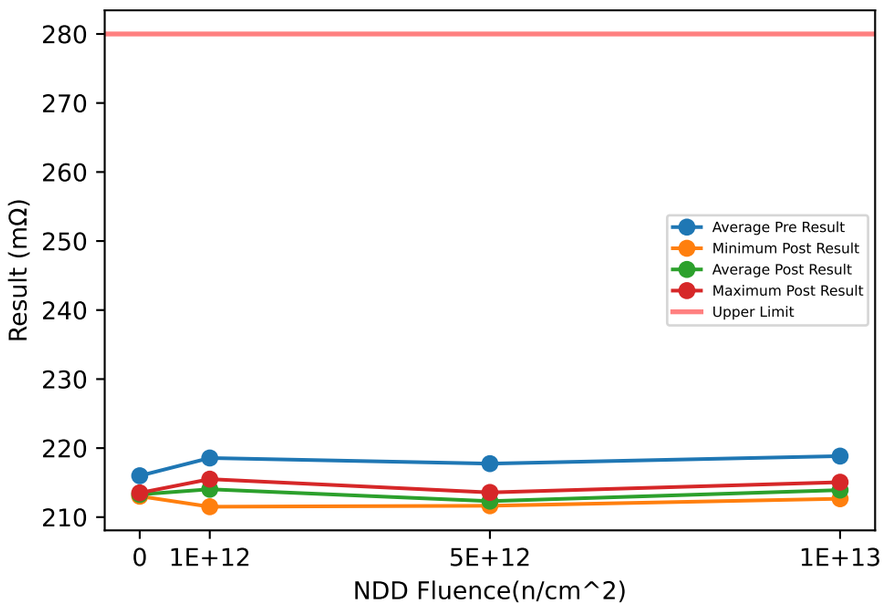
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	227.25	225.81	-1.4416
2	0	CU2	224.45	224.81	0.3616
3	0	CU3	224.5	227.55	3.0556
10	1e+12	1E12n/cm2	228.64	229.59	0.9469
11	1e+12	1E12n/cm2	228.91	229.18	0.2711
12	1e+12	1E12n/cm2	230.93	229.9	-1.0311
13	1e+12	1E12n/cm2	224.14	224.68	0.5379
20	5e+12	5E12n/cm2	228.62	227.46	-1.161
21	5e+12	5E12n/cm2	227.72	228.06	0.3374
22	5e+12	5E12n/cm2	228.16	227.37	-0.7966
23	5e+12	5E12n/cm2	228.54	228.42	-0.1207
30	1e+13	1E13n/cm2	227.55	226.64	-0.9154
31	1e+13	1E13n/cm2	229.64	230.38	0.7369
32	1e+13	1E13n/cm2	228.91	228.72	-0.1871
33	1e+13	1E13n/cm2	227.35	228.72	1.3771

Test Statistics (mΩ)

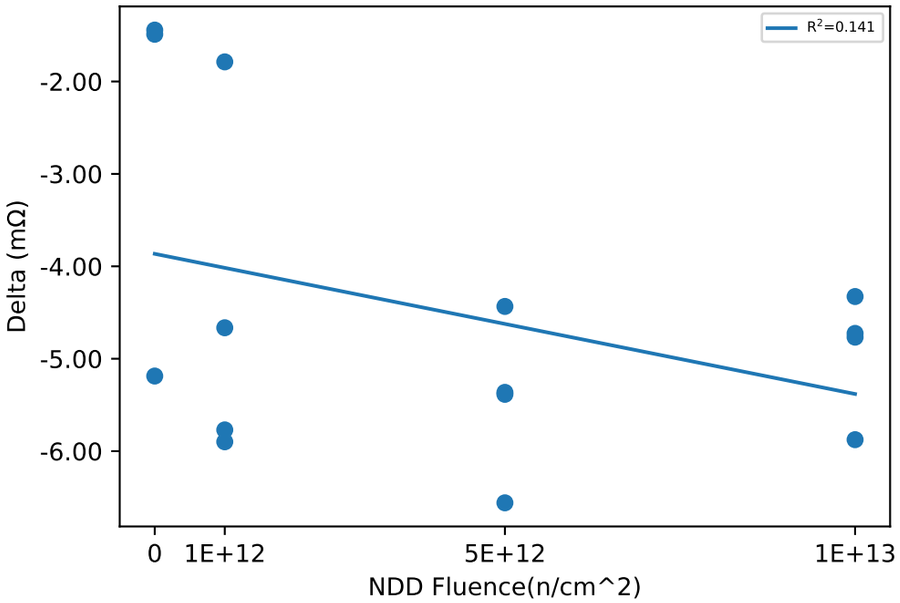
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	224.45	225.4	227.25	1.6026	224.81	226.06	227.55	1.3901	-1.4416	0.65853	3.0556	2.2633
1e+12	224.14	228.16	230.93	2.864	224.68	228.34	229.9	2.4552	-1.0311	0.1812	0.9469	0.85465
5e+12	227.72	228.26	228.62	0.41044	227.37	227.83	228.42	0.5003	-1.161	-0.43522	0.3374	0.67162
1e+13	227.35	228.36	229.64	1.0983	226.64	228.62	230.38	1.5313	-0.9154	0.25287	1.3771	1.0094

Device Test: 40.5 SW2_RDSON(RDSON|//SW2////@SW2_RDSON)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Upper Limit = 280.0 (mΩ))

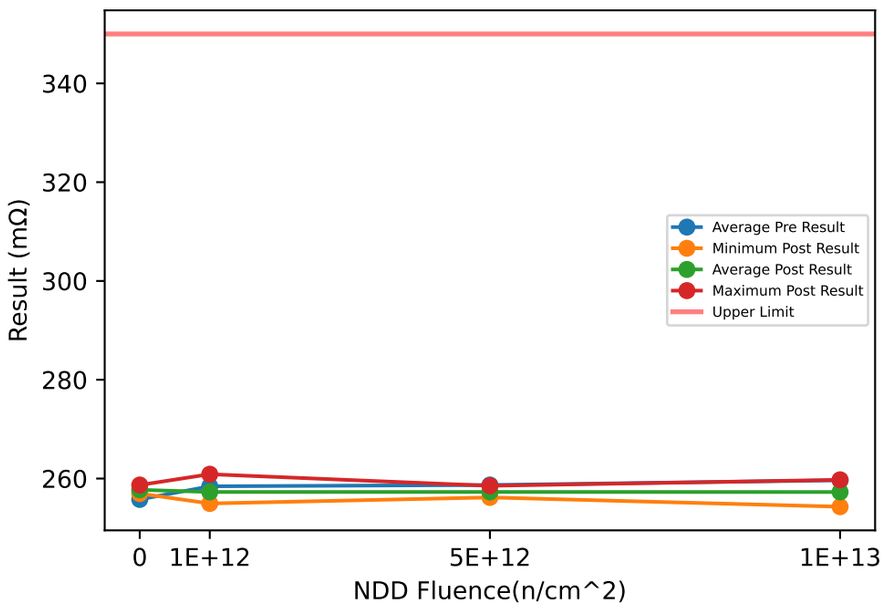
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	218.21	213.03	-5.1873
2	0	CU2	214.77	213.32	-1.4436
3	0	CU3	215	213.52	-1.4891
10	1e+12	1E12n/cm2	217.29	215.5	-1.7876
11	1e+12	1E12n/cm2	218.92	214.26	-4.6649
12	1e+12	1E12n/cm2	220.78	214.88	-5.8987
13	1e+12	1E12n/cm2	217.28	211.51	-5.77
20	5e+12	5E12n/cm2	217.12	211.73	-5.3851
21	5e+12	5E12n/cm2	217.01	211.65	-5.364
22	5e+12	5E12n/cm2	218.86	212.3	-6.5592
23	5e+12	5E12n/cm2	218.01	213.58	-4.4342
30	1e+13	1E13n/cm2	218.54	212.66	-5.8759
31	1e+13	1E13n/cm2	219.48	214.76	-4.7259
32	1e+13	1E13n/cm2	219.82	215.06	-4.7667
33	1e+13	1E13n/cm2	217.52	213.19	-4.327

Test Statistics (mΩ)

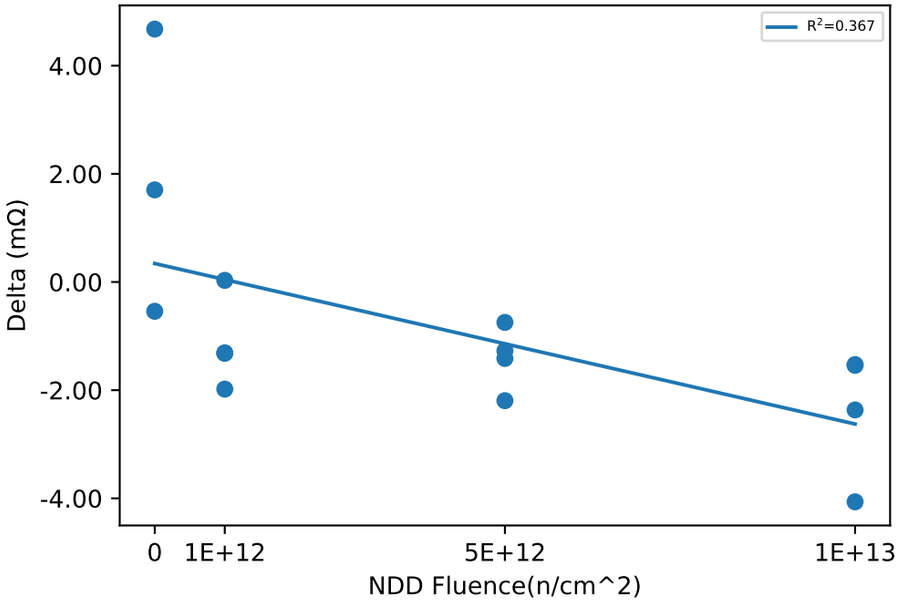
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	214.77	216	218.21	1.9255	213.03	213.29	213.52	0.24599	-5.1873	-2.7067	-1.4436	2.1484
1e+12	217.28	218.57	220.78	1.6629	211.51	214.04	215.5	1.7612	-5.8987	-4.5303	-1.7876	1.9105
5e+12	217.01	217.75	218.86	0.8671	211.65	212.31	213.58	0.88982	-6.5592	-5.4356	-4.4342	0.87043
1e+13	217.52	218.84	219.82	1.0347	212.66	213.92	215.06	1.1693	-5.8759	-4.9239	-4.327	0.66496

Device Test: 40.6 SW4_RDSON(RDSON|//SW4////@SW4_RDSON)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



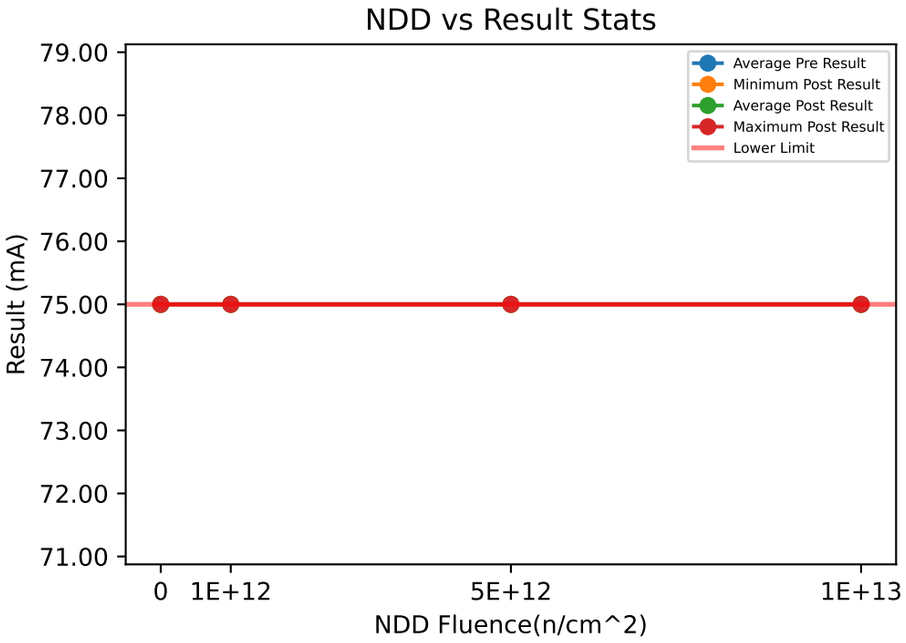
Test Results (Upper Limit = 350.0 (mΩ))

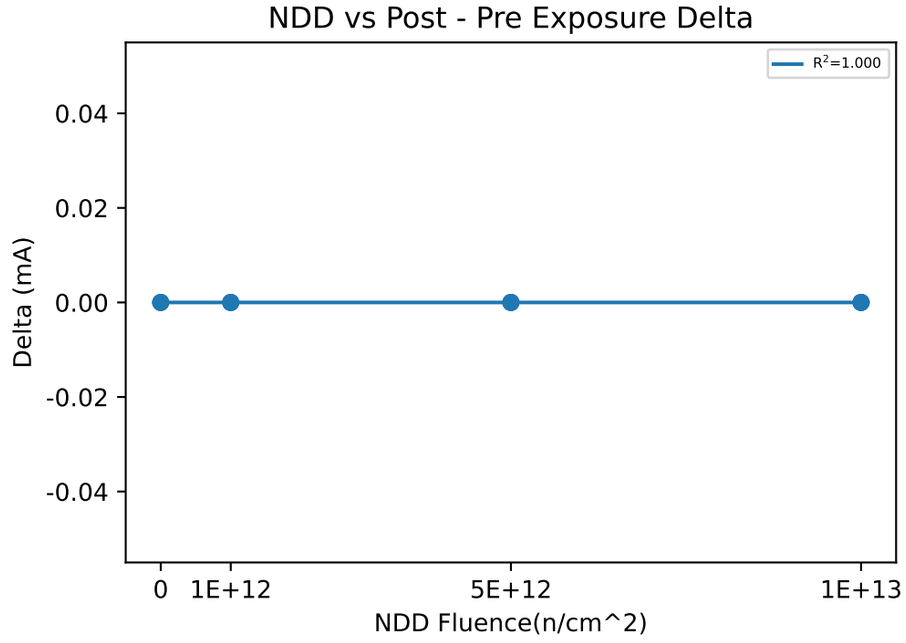
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	258.06	257.52	-0.5414
2	0	CU2	252.28	256.96	4.6769
3	0	CU3	256.99	258.69	1.7037
10	1e+12	1E12n/cm2	256.27	254.96	-1.3188
11	1e+12	1E12n/cm2	259.2	257.21	-1.9804
12	1e+12	1E12n/cm2	262.19	260.88	-1.3099
13	1e+12	1E12n/cm2	256.06	256.09	0.0305
20	5e+12	5E12n/cm2	259.55	258.14	-1.4135
21	5e+12	5E12n/cm2	257.04	256.3	-0.7468
22	5e+12	5E12n/cm2	258.37	256.17	-2.1944
23	5e+12	5E12n/cm2	259.81	258.54	-1.2727
30	1e+13	1E13n/cm2	258.36	254.3	-4.0646
31	1e+13	1E13n/cm2	259.41	257.04	-2.3657
32	1e+13	1E13n/cm2	261.27	259.74	-1.5272
33	1e+13	1E13n/cm2	259.55	258.01	-1.5409

Test Statistics (mΩ)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	252.28	255.77	258.06	3.0743	256.96	257.72	258.69	0.88608	-0.5414	1.9464	4.6769	2.6176
1e+12	256.06	258.43	262.19	2.8836	254.96	257.28	260.88	2.5655	-1.9804	-1.1446	0.0305	0.84402
5e+12	257.04	258.69	259.81	1.2666	256.17	257.29	258.54	1.2255	-2.1944	-1.4069	-0.7468	0.59831
1e+13	258.36	259.65	261.27	1.2031	254.3	257.27	259.74	2.2758	-4.0646	-2.3746	-1.5272	1.1929

vice Test: 44.1 I_DO_VIN_3V_VOUT_1N8(DROPOUT_CURRENT|//GO_NOGO/1N8V/75mA/3/@I_DO_VIN_3V_VOUT_1N





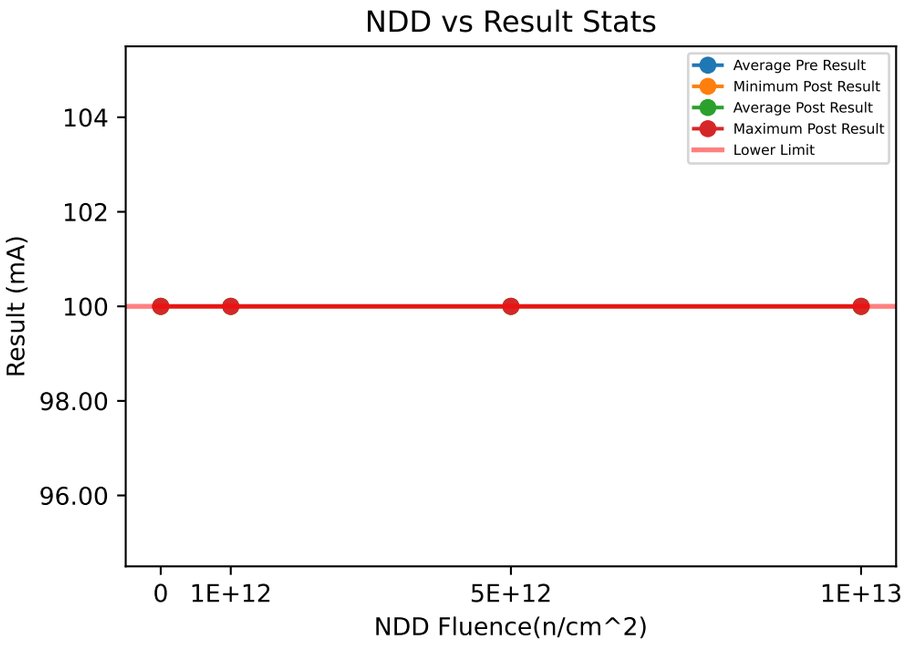
Test Results (Lower Limit = 75.0 (mA))

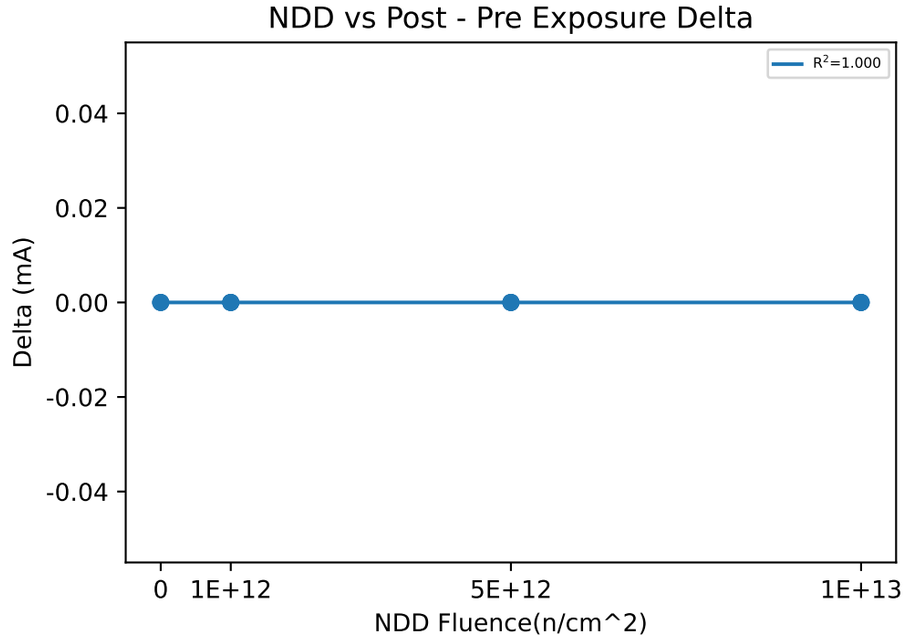
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	75	75	0
2	0	CU2	75	75	0
3	0	CU3	75	75	0
10	1e+12	1E12n/cm2	75	75	0
11	1e+12	1E12n/cm2	75	75	0
12	1e+12	1E12n/cm2	75	75	0
13	1e+12	1E12n/cm2	75	75	0
20	5e+12	5E12n/cm2	75	75	0
21	5e+12	5E12n/cm2	75	75	0
22	5e+12	5E12n/cm2	75	75	0
23	5e+12	5E12n/cm2	75	75	0
30	1e+13	1E13n/cm2	75	75	0
31	1e+13	1E13n/cm2	75	75	0
32	1e+13	1E13n/cm2	75	75	0
33	1e+13	1E13n/cm2	75	75	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	75	75	75	0	75	75	75	0	0	0	0	0
1e+12	75	75	75	0	75	75	75	0	0	0	0	0
5e+12	75	75	75	0	75	75	75	0	0	0	0	0
1e+13	75	75	75	0	75	75	75	0	0	0	0	0

Test: 44.2 I_DO_VIN_3P3V_VOUT_1N8(DROPOUT_CURRENT|//GO_NOGO/1N8V/100mA/3.3/@I_DO_VIN_3P3V_VOUT





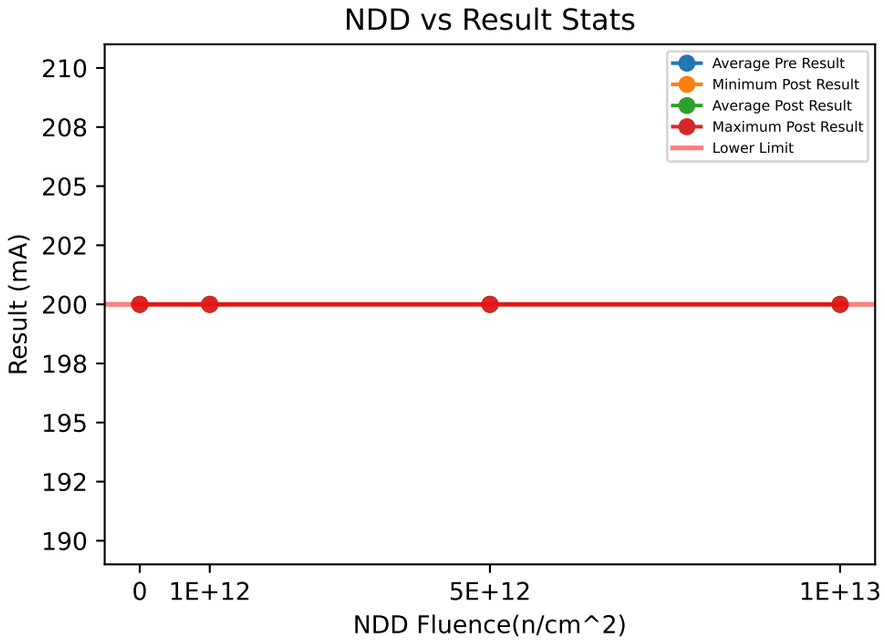
Test Results (Lower Limit = 100.0 (mA))

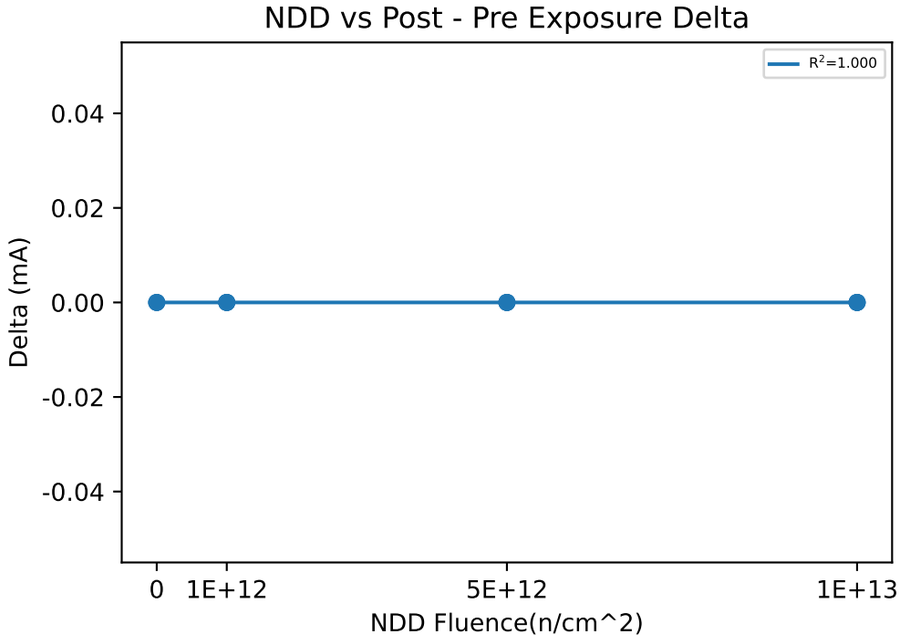
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	100	100	0
2	0	CU2	100	100	0
3	0	CU3	100	100	0
10	1e+12	1E12n/cm2	100	100	0
11	1e+12	1E12n/cm2	100	100	0
12	1e+12	1E12n/cm2	100	100	0
13	1e+12	1E12n/cm2	100	100	0
20	5e+12	5E12n/cm2	100	100	0
21	5e+12	5E12n/cm2	100	100	0
22	5e+12	5E12n/cm2	100	100	0
23	5e+12	5E12n/cm2	100	100	0
30	1e+13	1E13n/cm2	100	100	0
31	1e+13	1E13n/cm2	100	100	0
32	1e+13	1E13n/cm2	100	100	0
33	1e+13	1E13n/cm2	100	100	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	100	100	100	0	100	100	100	0	0	0	0	0
1e+12	100	100	100	0	100	100	100	0	0	0	0	0
5e+12	100	100	100	0	100	100	100	0	0	0	0	0
1e+13	100	100	100	0	100	100	100	0	0	0	0	0

vice Test: 44.3 I_DO_VIN_4V_VOUT_1N8(DROPOUT_CURRENT|//GO_NOGO/1N8V/200mA/4/@I_DO_VIN_4V_VOUT_1





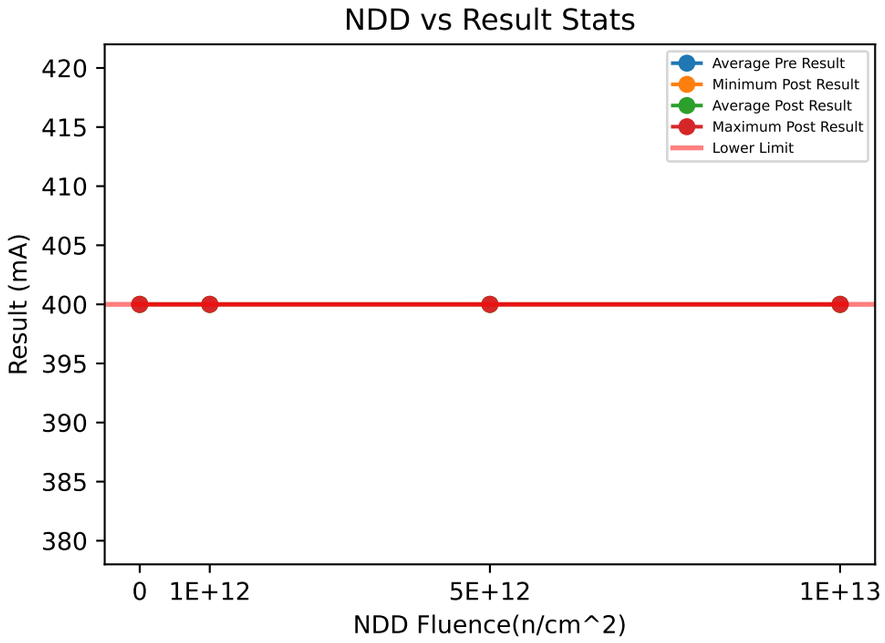
Test Results (Lower Limit = 200.0 (mA))

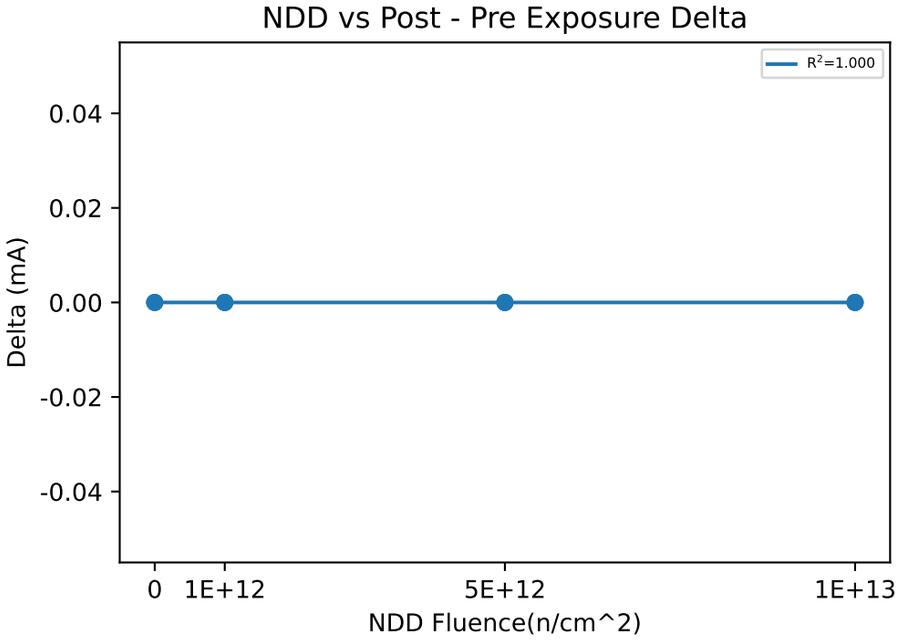
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	200	200	0
2	0	CU2	200	200	0
3	0	CU3	200	200	0
10	1e+12	1E12n/cm2	200	200	0
11	1e+12	1E12n/cm2	200	200	0
12	1e+12	1E12n/cm2	200	200	0
13	1e+12	1E12n/cm2	200	200	0
20	5e+12	5E12n/cm2	200	200	0
21	5e+12	5E12n/cm2	200	200	0
22	5e+12	5E12n/cm2	200	200	0
23	5e+12	5E12n/cm2	200	200	0
30	1e+13	1E13n/cm2	200	200	0
31	1e+13	1E13n/cm2	200	200	0
32	1e+13	1E13n/cm2	200	200	0
33	1e+13	1E13n/cm2	200	200	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	200	200	200	0	200	200	200	0	0	0	0	0
1e+12	200	200	200	0	200	200	200	0	0	0	0	0
5e+12	200	200	200	0	200	200	200	0	0	0	0	0
1e+13	200	200	200	0	200	200	200	0	0	0	0	0

vice Test: 44.4 I_DO_VIN_5V_VOUT_1N8(DROPOUT_CURRENT|//GO_NOGO/1N8V/400mA/5/@I_DO_VIN_5V_VOUT_1





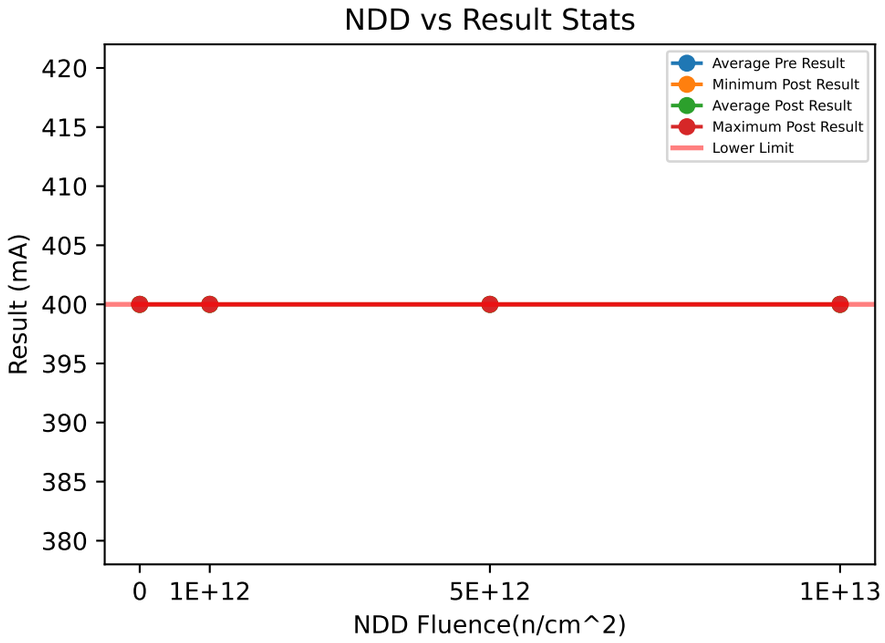
Test Results (Lower Limit = 400.0 (mA))

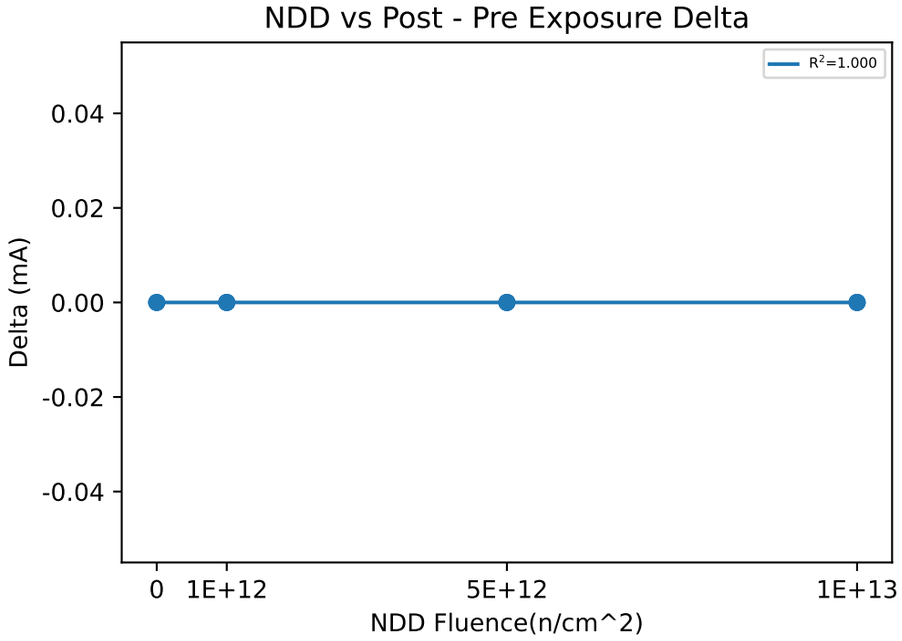
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	400	400	0
2	0	CU2	400	400	0
3	0	CU3	400	400	0
10	1e+12	1E12n/cm2	400	400	0
11	1e+12	1E12n/cm2	400	400	0
12	1e+12	1E12n/cm2	400	400	0
13	1e+12	1E12n/cm2	400	400	0
20	5e+12	5E12n/cm2	400	400	0
21	5e+12	5E12n/cm2	400	400	0
22	5e+12	5E12n/cm2	400	400	0
23	5e+12	5E12n/cm2	400	400	0
30	1e+13	1E13n/cm2	400	400	0
31	1e+13	1E13n/cm2	400	400	0
32	1e+13	1E13n/cm2	400	400	0
33	1e+13	1E13n/cm2	400	400	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	400	400	400	0	400	400	400	0	0	0	0	0
1e+12	400	400	400	0	400	400	400	0	0	0	0	0
5e+12	400	400	400	0	400	400	400	0	0	0	0	0
1e+13	400	400	400	0	400	400	400	0	0	0	0	0

vice Test: 44.5 I_DO_VIN_6V_VOUT_1N8(DROPOUT_CURRENT|//GO_NOGO/1N8V/400mA/6/@I_DO_VIN_6V_VOUT_1





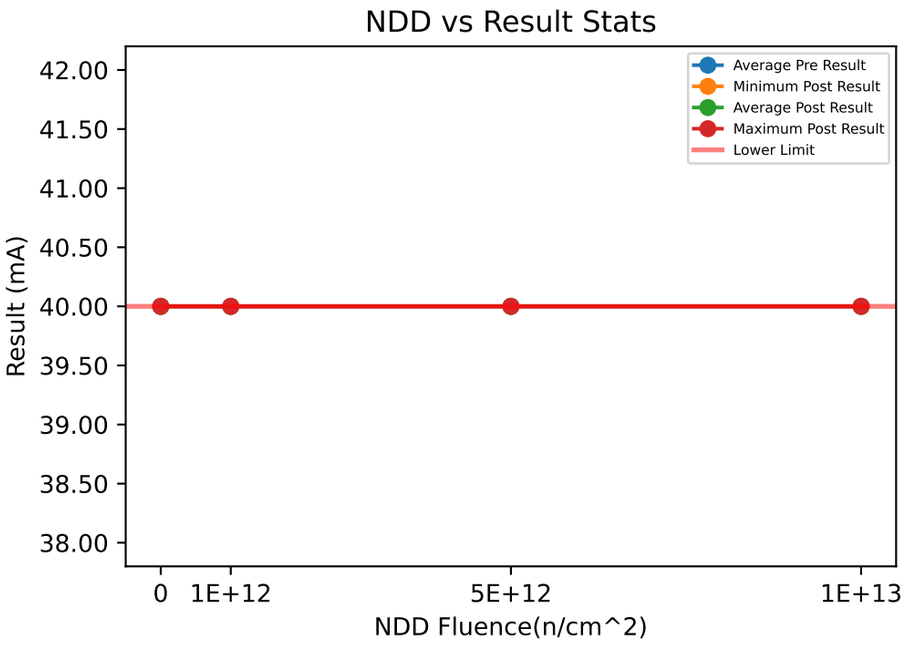
Test Results (Lower Limit = 400.0 (mA))

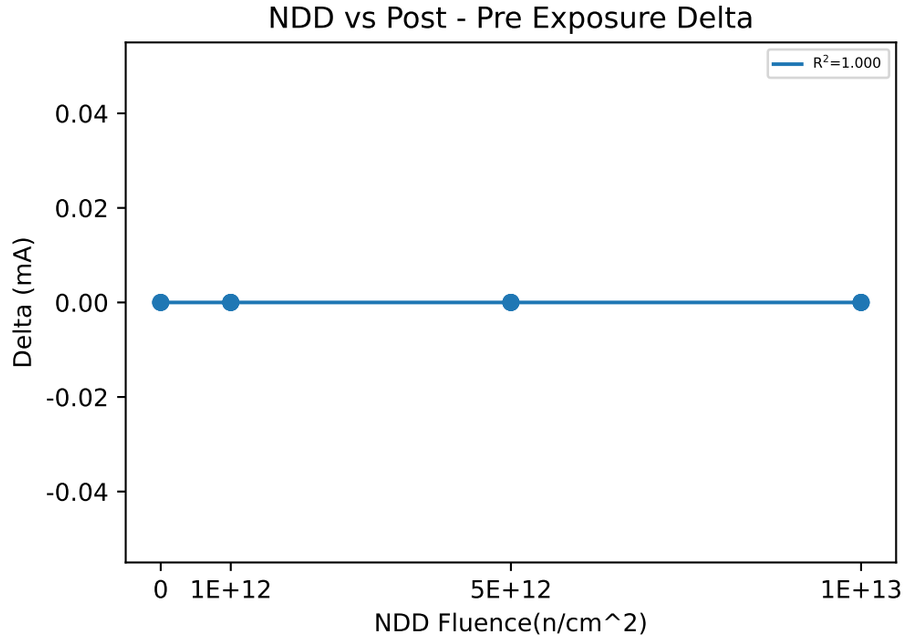
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	400	400	0
2	0	CU2	400	400	0
3	0	CU3	400	400	0
10	1e+12	1E12n/cm2	400	400	0
11	1e+12	1E12n/cm2	400	400	0
12	1e+12	1E12n/cm2	400	400	0
13	1e+12	1E12n/cm2	400	400	0
20	5e+12	5E12n/cm2	400	400	0
21	5e+12	5E12n/cm2	400	400	0
22	5e+12	5E12n/cm2	400	400	0
23	5e+12	5E12n/cm2	400	400	0
30	1e+13	1E13n/cm2	400	400	0
31	1e+13	1E13n/cm2	400	400	0
32	1e+13	1E13n/cm2	400	400	0
33	1e+13	1E13n/cm2	400	400	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	400	400	400	0	400	400	400	0	0	0	0	0
1e+12	400	400	400	0	400	400	400	0	0	0	0	0
5e+12	400	400	400	0	400	400	400	0	0	0	0	0
1e+13	400	400	400	0	400	400	400	0	0	0	0	0

e Test: 44.6 I_DO_VIN_5P5V_VOUT_5N0(DROPOUT_CURRENT|//GO_NOGO/5N0V/40mA/5.5/@I_DO_VIN_5P5V_VOUT





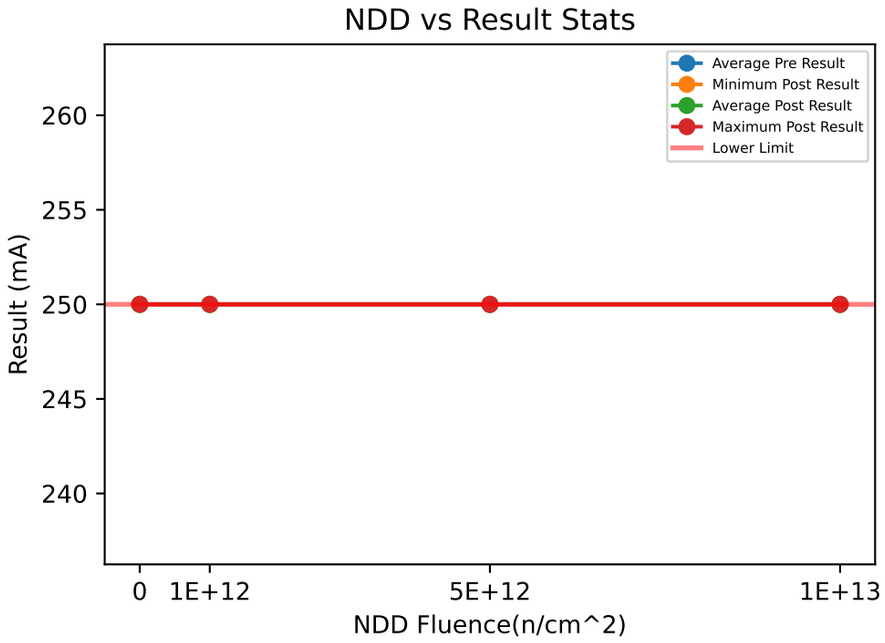
Test Results (Lower Limit = 40.0 (mA))

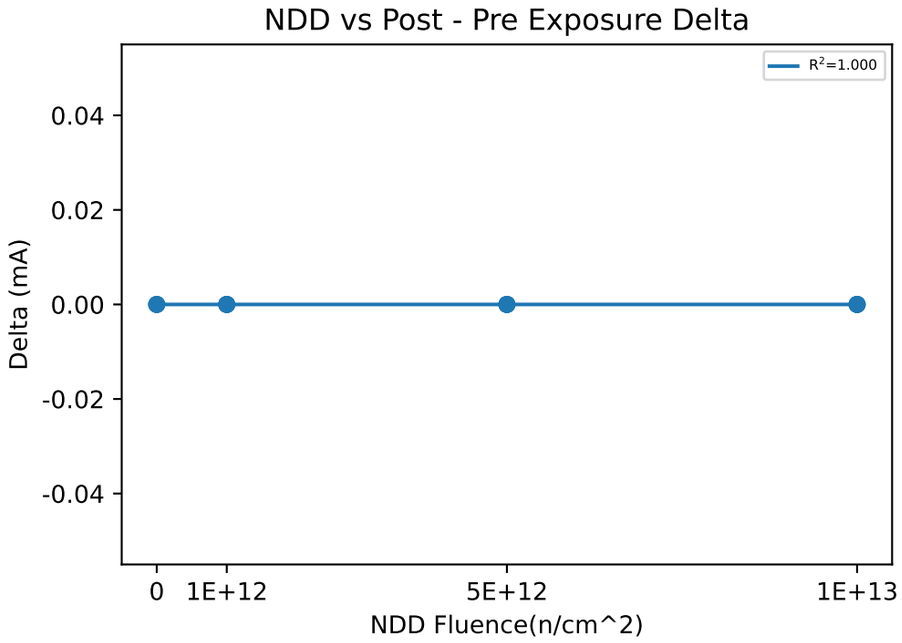
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	40	40	0
2	0	CU2	40	40	0
3	0	CU3	40	40	0
10	1e+12	1E12n/cm2	40	40	0
11	1e+12	1E12n/cm2	40	40	0
12	1e+12	1E12n/cm2	40	40	0
13	1e+12	1E12n/cm2	40	40	0
20	5e+12	5E12n/cm2	40	40	0
21	5e+12	5E12n/cm2	40	40	0
22	5e+12	5E12n/cm2	40	40	0
23	5e+12	5E12n/cm2	40	40	0
30	1e+13	1E13n/cm2	40	40	0
31	1e+13	1E13n/cm2	40	40	0
32	1e+13	1E13n/cm2	40	40	0
33	1e+13	1E13n/cm2	40	40	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	40	40	40	0	40	40	40	0	0	0	0	0
1e+12	40	40	40	0	40	40	40	0	0	0	0	0
5e+12	40	40	40	0	40	40	40	0	0	0	0	0
1e+13	40	40	40	0	40	40	40	0	0	0	0	0

vice Test: 44.7 I_DO_VIN_6V_VOUT_5N0(DROPOUT_CURRENT|//GO_NOGO/5N0V/250mA/6/@I_DO_VIN_6V_VOUT_5





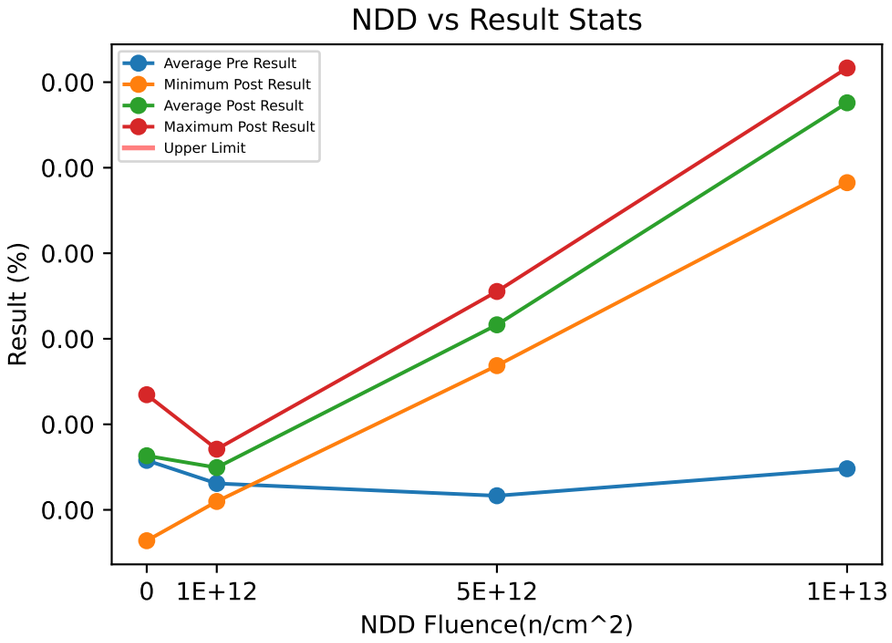
Test Results (Lower Limit = 250.0 (mA))

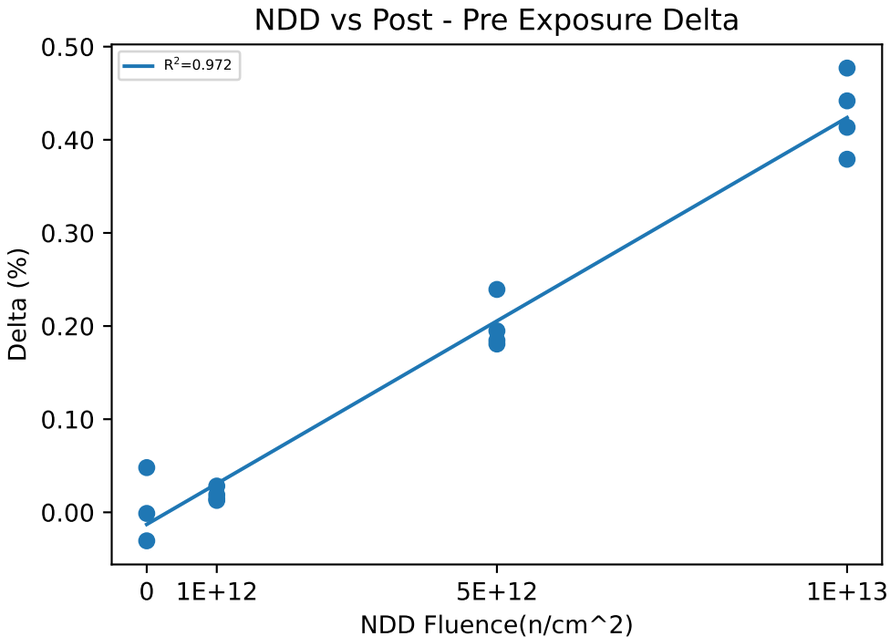
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	250	250	0
2	0	CU2	250	250	0
3	0	CU3	250	250	0
10	1e+12	1E12n/cm2	250	250	0
11	1e+12	1E12n/cm2	250	250	0
12	1e+12	1E12n/cm2	250	250	0
13	1e+12	1E12n/cm2	250	250	0
20	5e+12	5E12n/cm2	250	250	0
21	5e+12	5E12n/cm2	250	250	0
22	5e+12	5E12n/cm2	250	250	0
23	5e+12	5E12n/cm2	250	250	0
30	1e+13	1E13n/cm2	250	250	0
31	1e+13	1E13n/cm2	250	250	0
32	1e+13	1E13n/cm2	250	250	0
33	1e+13	1E13n/cm2	250	250	0

Test Statistics (mA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	250	250	250	0	250	250	250	0	0	0	0	0
1e+12	250	250	250	0	250	250	250	0	0	0	0	0
5e+12	250	250	250	0	250	250	250	0	0	0	0	0
1e+13	250	250	250	0	250	250	250	0	0	0	0	0

Device Test: 50.1 ACC_VIN_3P0_VOUT_0N6_1MA(ACCURACY|//VOUT/0N6V/10mA/3/@ACC_VIN_3P0_VOUT_0N6_1MA





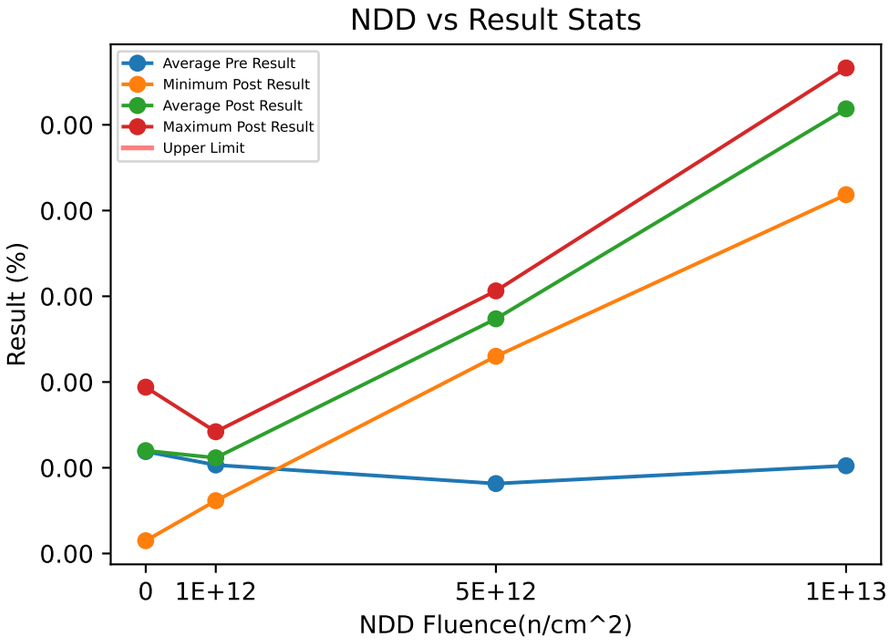
Test Results (No Limits Specified (%))

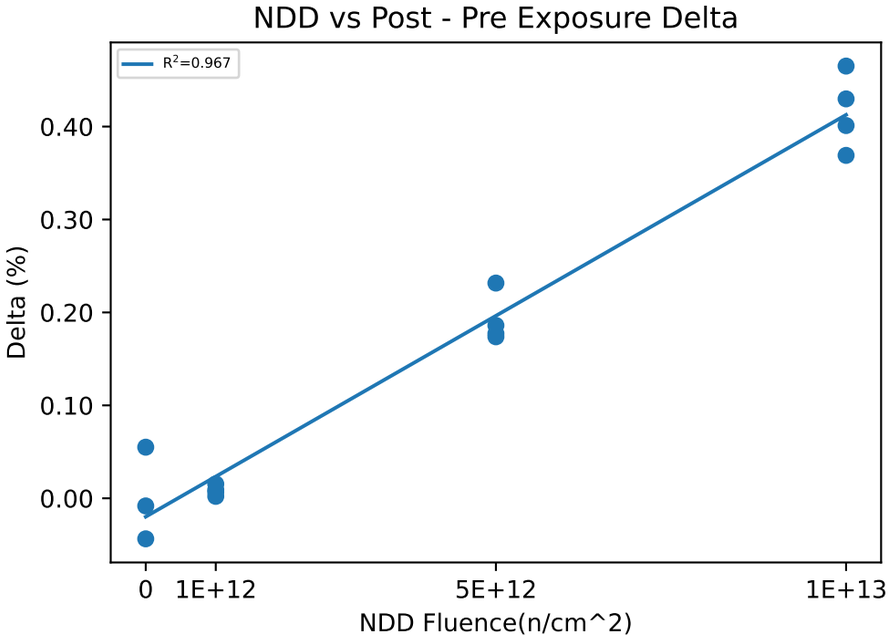
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	8.66e-14	1.346e-13	0.048
2	0	CU2	9.24e-14	9.12e-14	-0.0012
3	0	CU3	-5.5e-15	-3.61e-14	-0.0306
10	1e+12	1E12n/cm2	-9e-15	9.8e-15	0.0188
11	1e+12	1E12n/cm2	5.81e-14	7.09e-14	0.0128
12	1e+12	1E12n/cm2	2.14e-14	4.96e-14	0.0282
13	1e+12	1E12n/cm2	5.29e-14	6.73e-14	0.0144
20	5e+12	5E12n/cm2	1.6e-14	2.553e-13	0.2393
21	5e+12	5E12n/cm2	4.8e-15	1.996e-13	0.1948
22	5e+12	5E12n/cm2	-1.21e-14	1.686e-13	0.1807
23	5e+12	5E12n/cm2	5.72e-14	2.418e-13	0.1846
30	1e+13	1E13n/cm2	3.4e-15	3.825e-13	0.3791
31	1e+13	1E13n/cm2	2.28e-14	4.998e-13	0.477
32	1e+13	1E13n/cm2	7.48e-14	5.166e-13	0.4418
33	1e+13	1E13n/cm2	9.12e-14	5.046e-13	0.4134

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-5.5e-15	5.7833e-14	9.24e-14	5.4925e-14	-3.61e-14	6.3233e-14	1.346e-13	8.872e-14	-0.0306	0.0054	0.048	0.039713
1e+12	-9e-15	3.085e-14	5.81e-14	3.1124e-14	9.8e-15	4.94e-14	7.09e-14	2.7993e-14	0.0128	0.01855	0.0282	0.0069154
5e+12	-1.21e-14	1.6475e-14	5.72e-14	2.9505e-14	1.686e-13	2.1633e-13	2.553e-13	3.9688e-14	0.1807	0.19985	0.2393	0.026963
1e+13	3.4e-15	4.805e-14	9.12e-14	4.1668e-14	3.825e-13	4.7588e-13	5.166e-13	6.265e-14	0.3791	0.42783	0.477	0.041616

ce Test: 50.10 ACC_VIN_5P0_VOUT_1N8_400MA(ACCURACY|//VOUT/1N8V/400mA/5/@ACC_VIN_5P0_VOUT_1N8_40





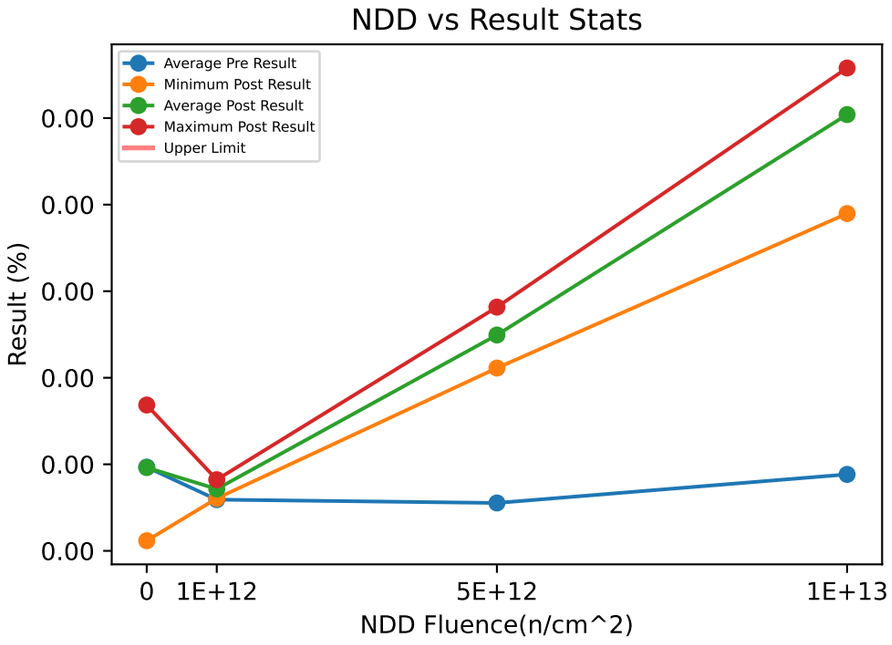
Test Results (No Limits Specified (%))

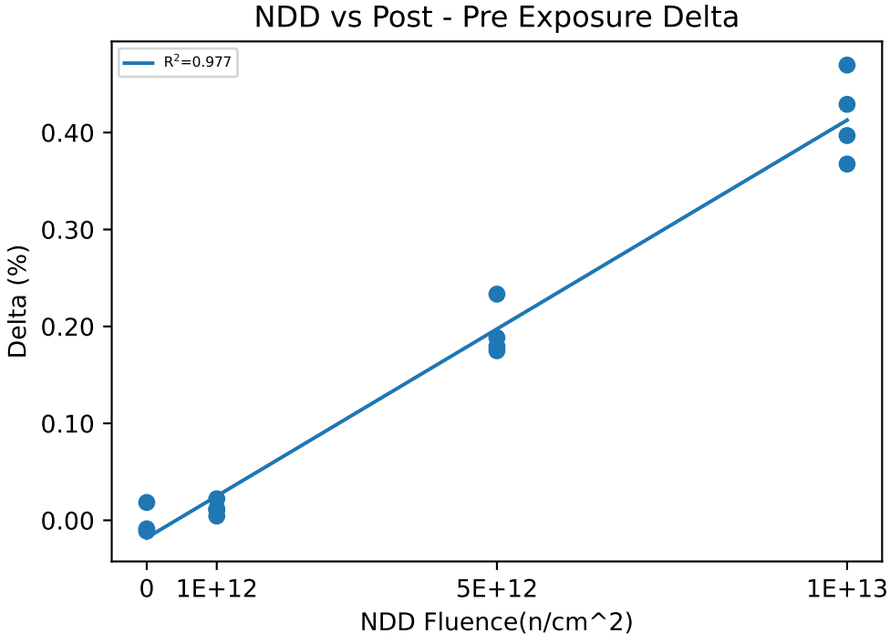
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.39e-13	1.94e-13	0.055
2	0	CU2	1.592e-13	1.51e-13	-0.0082
3	0	CU3	5.85e-14	1.49e-14	-0.0436
10	1e+12	1E12n/cm2	5.49e-14	6.16e-14	0.0067
11	1e+12	1E12n/cm2	1.316e-13	1.337e-13	0.0021
12	1e+12	1E12n/cm2	9.37e-14	1.091e-13	0.0154
13	1e+12	1E12n/cm2	1.328e-13	1.42e-13	0.0092
20	5e+12	5E12n/cm2	7.19e-14	3.035e-13	0.2316
21	5e+12	5E12n/cm2	6.91e-14	2.551e-13	0.186
22	5e+12	5E12n/cm2	5.62e-14	2.3e-13	0.1738
23	5e+12	5E12n/cm2	1.29e-13	3.063e-13	0.1773
30	1e+13	1E13n/cm2	4.95e-14	4.185e-13	0.369
31	1e+13	1E13n/cm2	8.21e-14	5.472e-13	0.4651
32	1e+13	1E13n/cm2	1.365e-13	5.663e-13	0.4298
33	1e+13	1E13n/cm2	1.413e-13	5.424e-13	0.4011

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.85e-14	1.189e-13	1.592e-13	5.3274e-14	1.49e-14	1.1997e-13	1.94e-13	9.3496e-14	-0.0436	0.0010667	0.055	0.049949
1e+12	5.49e-14	1.0325e-13	1.328e-13	3.6995e-14	6.16e-14	1.116e-13	1.42e-13	3.6142e-14	0.0021	0.00835	0.0154	0.0055441
5e+12	5.62e-14	8.155e-14	1.29e-13	3.2364e-14	2.3e-13	2.7373e-13	3.063e-13	3.7445e-14	0.1738	0.19217	0.2316	0.026779
1e+13	4.95e-14	1.0235e-13	1.413e-13	4.4296e-14	4.185e-13	5.186e-13	5.663e-13	6.7527e-14	0.369	0.41625	0.4651	0.040955

vice Test: 50.11 ACC_VIN_6P3_VOUT_5N0_1MA(ACCURACY|//VOUT/5N0V/10mA/6.3/@ACC_VIN_6P3_VOUT_5N0_1M





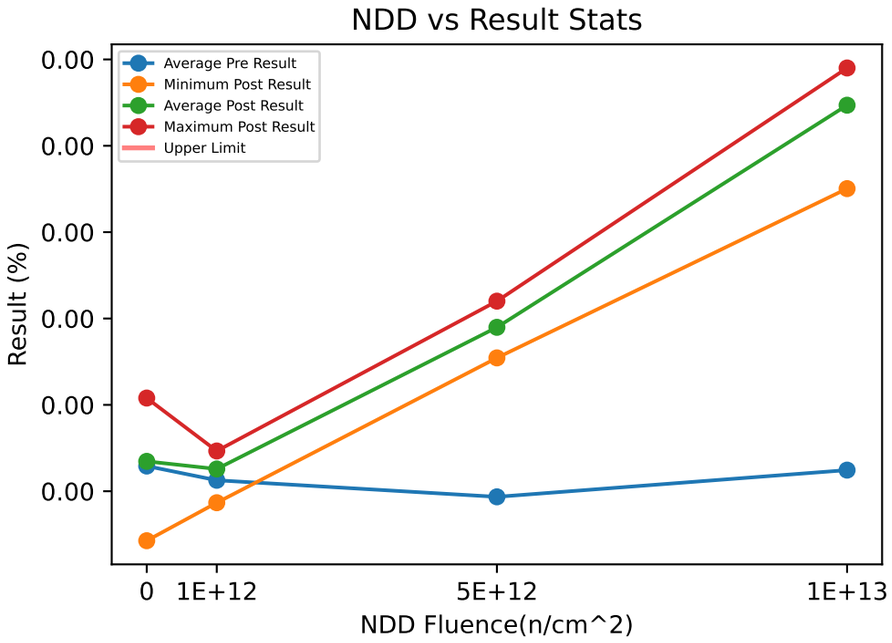
Test Results (No Limits Specified (%))

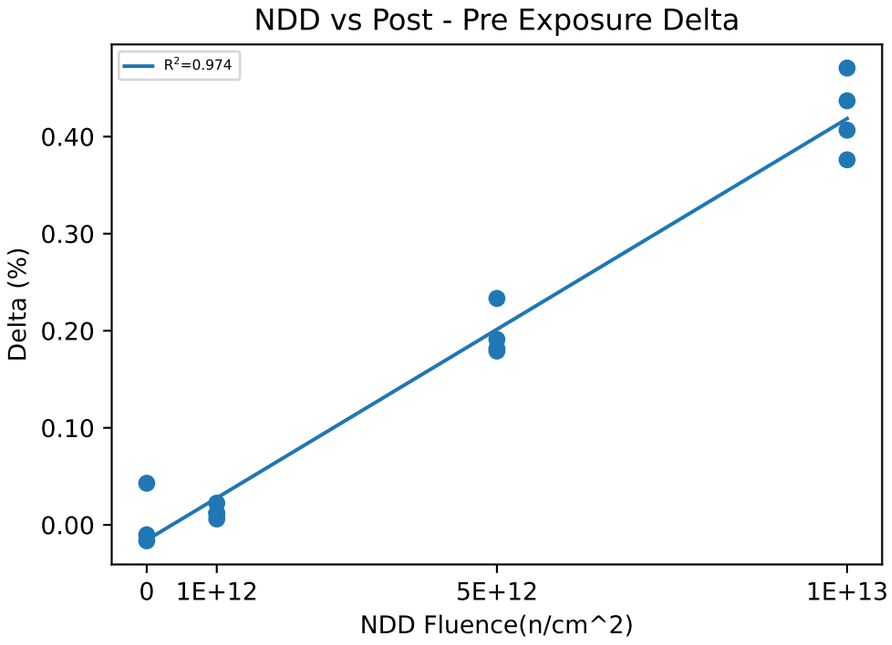
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.501e-13	1.685e-13	0.0184
2	0	CU2	1.197e-13	1.085e-13	-0.0112
3	0	CU3	2.05e-14	1.17e-14	-0.0088
10	1e+12	1E12n/cm2	4.88e-14	6.06e-14	0.0118
11	1e+12	1E12n/cm2	6.49e-14	6.93e-14	0.0044
12	1e+12	1E12n/cm2	5.15e-14	7.37e-14	0.0222
13	1e+12	1E12n/cm2	7.15e-14	8.22e-14	0.0107
20	5e+12	5E12n/cm2	1.62e-14	2.495e-13	0.2333
21	5e+12	5E12n/cm2	6.68e-14	2.552e-13	0.1884
22	5e+12	5E12n/cm2	3.63e-14	2.112e-13	0.1749
23	5e+12	5E12n/cm2	1.02e-13	2.816e-13	0.1796
30	1e+13	1E13n/cm2	2.22e-14	3.897e-13	0.3675
31	1e+13	1E13n/cm2	8.83e-14	5.579e-13	0.4696
32	1e+13	1E13n/cm2	1.271e-13	5.562e-13	0.4291
33	1e+13	1E13n/cm2	1.156e-13	5.125e-13	0.3969

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.05e-14	9.6767e-14	1.501e-13	6.7775e-14	1.17e-14	9.6233e-14	1.685e-13	7.9116e-14	-0.0112	-0.00053333	0.0184	0.016441
1e+12	4.88e-14	5.9175e-14	7.15e-14	1.082e-14	6.06e-14	7.145e-14	8.22e-14	8.9994e-15	0.0044	0.012275	0.0222	0.0073763
5e+12	1.62e-14	5.5325e-14	1.02e-13	3.743e-14	2.112e-13	2.4937e-13	2.816e-13	2.9039e-14	0.1749	0.19405	0.2333	0.026758
1e+13	2.22e-14	8.83e-14	1.271e-13	4.6975e-14	3.897e-13	5.0407e-13	5.579e-13	7.9092e-14	0.3675	0.41578	0.4696	0.043823

e Test: 50.12 ACC_VIN_6P3_VOUT_5N0_250MA(ACCURACY|//VOUT/5N0V/250mA/6.3/@ACC_VIN_6P3_VOUT_5N0_25





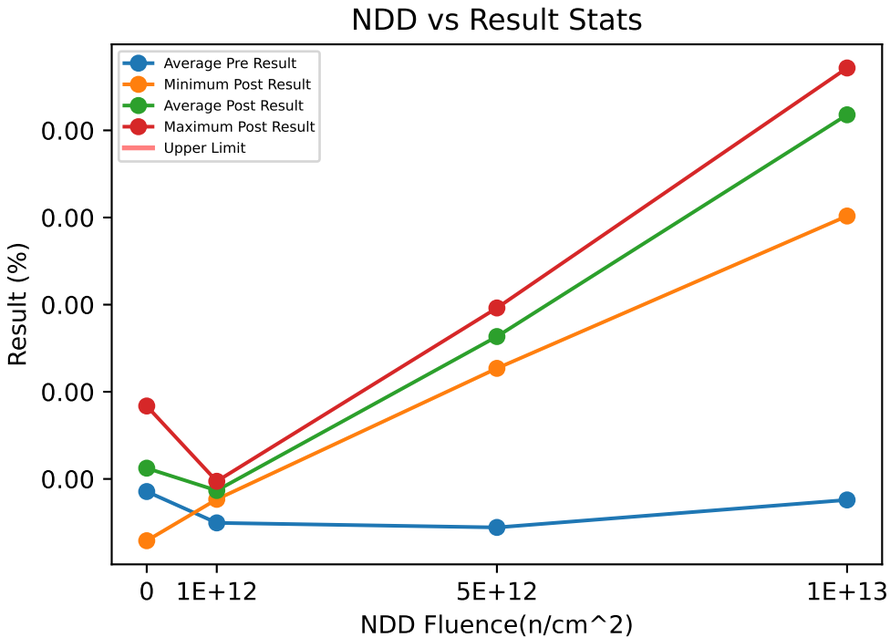
Test Results (No Limits Specified (%))

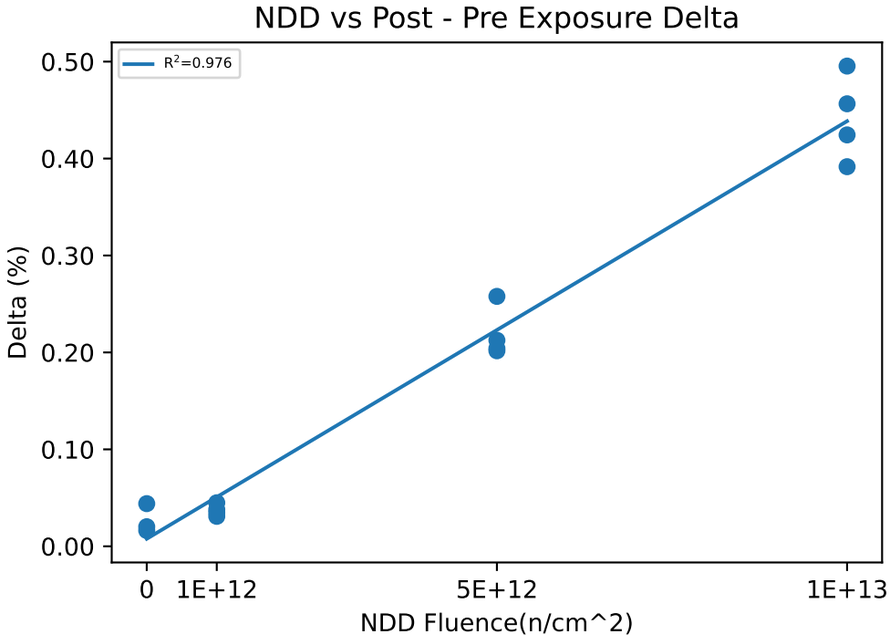
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.65e-13	2.079e-13	0.0429
2	0	CU2	1.634e-13	1.532e-13	-0.0102
3	0	CU3	5.91e-14	4.27e-14	-0.0164
10	1e+12	1E12n/cm2	7.43e-14	8.67e-14	0.0124
11	1e+12	1E12n/cm2	1.405e-13	1.466e-13	0.0061
12	1e+12	1E12n/cm2	1.035e-13	1.259e-13	0.0224
13	1e+12	1E12n/cm2	1.325e-13	1.438e-13	0.0113
20	5e+12	5E12n/cm2	7.06e-14	3.039e-13	0.2333
21	5e+12	5E12n/cm2	8.98e-14	2.808e-13	0.191
22	5e+12	5E12n/cm2	7.53e-14	2.544e-13	0.1791
23	5e+12	5E12n/cm2	1.384e-13	3.201e-13	0.1817
30	1e+13	1E13n/cm2	7.43e-14	4.504e-13	0.3761
31	1e+13	1E13n/cm2	1.073e-13	5.779e-13	0.4706
32	1e+13	1E13n/cm2	1.532e-13	5.901e-13	0.4369
33	1e+13	1E13n/cm2	1.63e-13	5.696e-13	0.4066

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.91e-14	1.2917e-13	1.65e-13	6.0685e-14	4.27e-14	1.346e-13	2.079e-13	8.4156e-14	-0.0164	0.0054333	0.0429	0.032595
1e+12	7.43e-14	1.127e-13	1.405e-13	3.0133e-14	8.67e-14	1.2575e-13	1.466e-13	2.7601e-14	0.0061	0.01305	0.0224	0.006812
5e+12	7.06e-14	9.3525e-14	1.384e-13	3.1013e-14	2.544e-13	2.898e-13	3.201e-13	2.8584e-14	0.1791	0.19628	0.2333	0.025206
1e+13	7.43e-14	1.2445e-13	1.63e-13	4.1319e-14	4.504e-13	5.47e-13	5.901e-13	6.4948e-14	0.3761	0.42255	0.4706	0.040525

ice Test: 50.13 ACC_VIN_6P3_VOUT_6N0_10MA(ACCURACY|//VOUT/6N0V/10mA/6.3/@ACC_VIN_6P3_VOUT_6N0_10





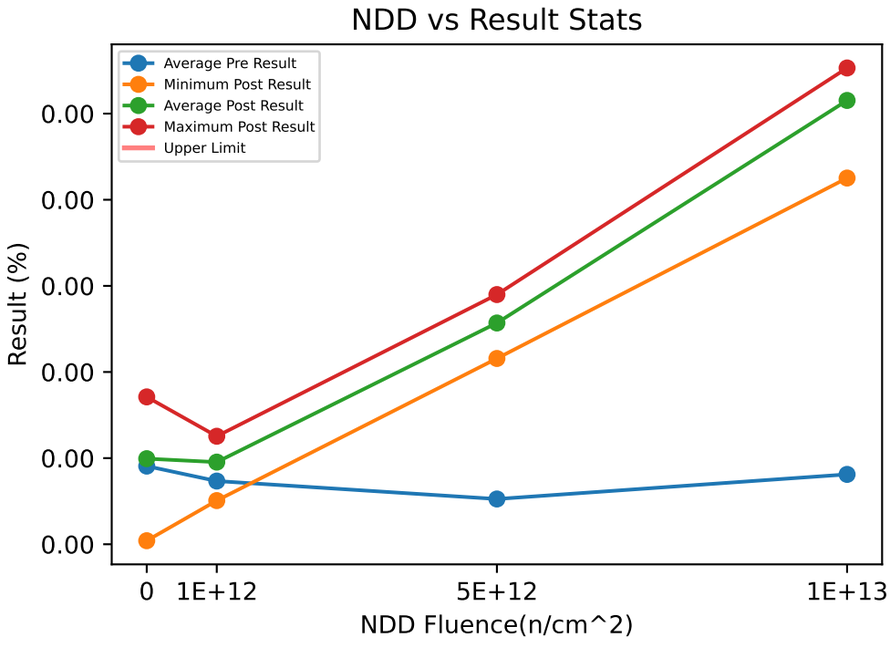
Test Results (No Limits Specified (%))

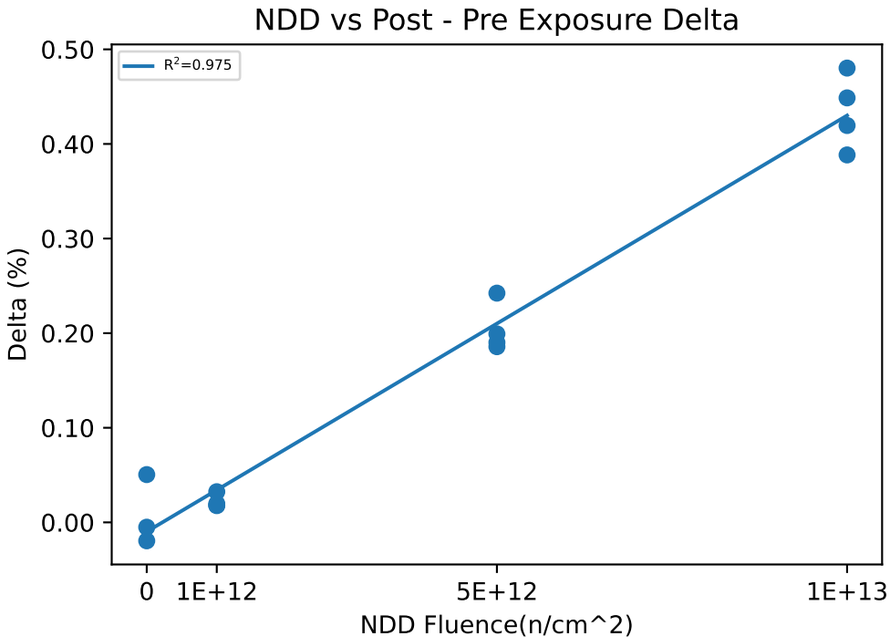
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.397e-13	1.837e-13	0.044
2	0	CU2	1.08e-13	1.243e-13	0.0163
3	0	CU3	8.9e-15	2.91e-14	0.0202
10	1e+12	1E12n/cm2	3.86e-14	7.66e-14	0.038
11	1e+12	1E12n/cm2	5.42e-14	8.51e-14	0.0309
12	1e+12	1E12n/cm2	4.29e-14	8.78e-14	0.0449
13	1e+12	1E12n/cm2	6.26e-14	9.73e-14	0.0347
20	5e+12	5E12n/cm2	4.9e-15	2.627e-13	0.2578
21	5e+12	5E12n/cm2	5.53e-14	2.678e-13	0.2125
22	5e+12	5E12n/cm2	2.52e-14	2.269e-13	0.2017
23	5e+12	5E12n/cm2	9.2e-14	2.962e-13	0.2042
30	1e+13	1E13n/cm2	1.01e-14	4.017e-13	0.3916
31	1e+13	1E13n/cm2	7.62e-14	5.716e-13	0.4954
32	1e+13	1E13n/cm2	1.141e-13	5.706e-13	0.4565
33	1e+13	1E13n/cm2	1.032e-13	5.276e-13	0.4244

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	8.9e-15	8.5533e-14	1.397e-13	6.8233e-14	2.91e-14	1.1237e-13	1.837e-13	7.7988e-14	0.0163	0.026833	0.044	0.014994
1e+12	3.86e-14	4.9575e-14	6.26e-14	1.0894e-14	7.66e-14	8.67e-14	9.73e-14	8.5272e-15	0.0309	0.037125	0.0449	0.0059399
5e+12	4.9e-15	4.435e-14	9.2e-14	3.7919e-14	2.269e-13	2.634e-13	2.962e-13	2.8448e-14	0.2017	0.21905	0.2578	0.026243
1e+13	1.01e-14	7.59e-14	1.141e-13	4.667e-14	4.017e-13	5.1787e-13	5.716e-13	8.012e-14	0.3916	0.44198	0.4954	0.044391

ce Test: 50.2 ACC_VIN_3P0_VOUT_0N6_150MA(ACCURACY|//VOUT/0N6V/150mA/3/@ACC_VIN_3P0_VOUT_0N6_150





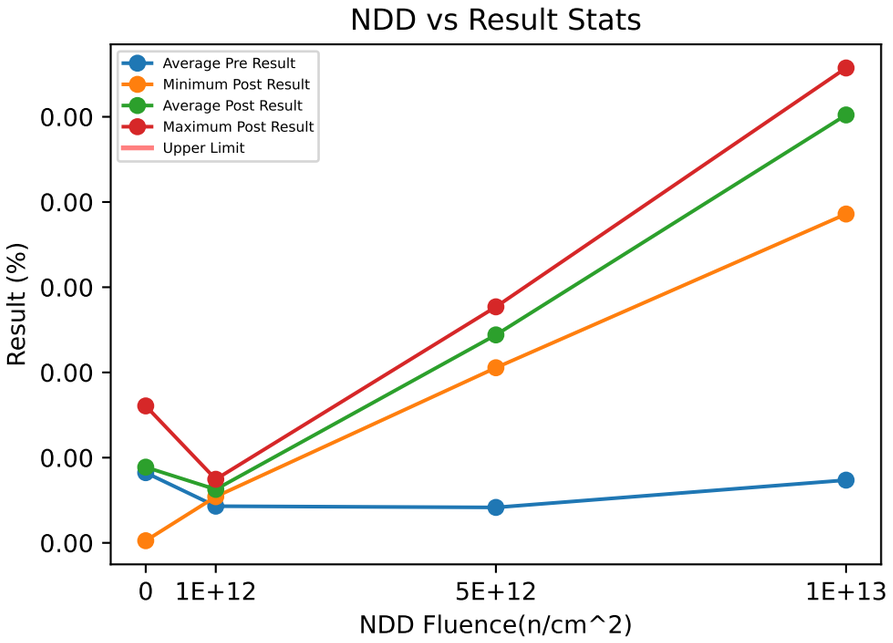
Test Results (No Limits Specified (%))

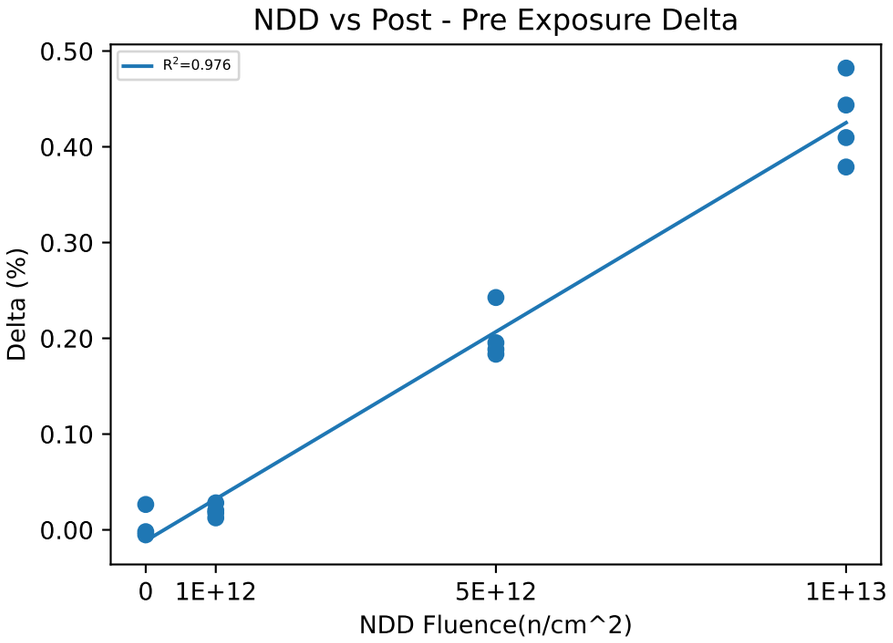
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.206e-13	1.711e-13	0.0505
2	0	CU2	1.28e-13	1.229e-13	-0.0051
3	0	CU3	2.36e-14	4.1e-15	-0.0195
10	1e+12	1E12n/cm2	3.09e-14	5.07e-14	0.0198
11	1e+12	1E12n/cm2	1.077e-13	1.254e-13	0.0177
12	1e+12	1E12n/cm2	5.91e-14	9.15e-14	0.0324
13	1e+12	1E12n/cm2	9.58e-14	1.139e-13	0.0181
20	5e+12	5E12n/cm2	4.76e-14	2.899e-13	0.2423
21	5e+12	5E12n/cm2	4.08e-14	2.4e-13	0.1992
22	5e+12	5E12n/cm2	3e-14	2.157e-13	0.1857
23	5e+12	5E12n/cm2	9.18e-14	2.82e-13	0.1902
30	1e+13	1E13n/cm2	3.68e-14	4.252e-13	0.3884
31	1e+13	1E13n/cm2	5.95e-14	5.397e-13	0.4802
32	1e+13	1E13n/cm2	1.043e-13	5.53e-13	0.4487
33	1e+13	1E13n/cm2	1.238e-13	5.433e-13	0.4195

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.36e-14	9.0733e-14	1.28e-13	5.8257e-14	4.1e-15	9.9367e-14	1.711e-13	8.5951e-14	-0.0195	0.0086333	0.0505	0.036966
1e+12	3.09e-14	7.3375e-14	1.077e-13	3.5067e-14	5.07e-14	9.5375e-14	1.254e-13	3.2942e-14	0.0177	0.022	0.0324	0.0069929
5e+12	3e-14	5.255e-14	9.18e-14	2.7152e-14	2.157e-13	2.569e-13	2.899e-13	3.5129e-14	0.1857	0.20435	0.2423	0.025915
1e+13	3.68e-14	8.11e-14	1.238e-13	3.9961e-14	4.252e-13	5.153e-13	5.53e-13	6.0329e-14	0.3884	0.4342	0.4802	0.039328

evice Test: 50.3 ACC_VIN_6P3_VOUT_0N6_1MA(ACCURACY|//VOUT/0N6V/10mA/6.3/@ACC_VIN_6P3_VOUT_0N6_1M





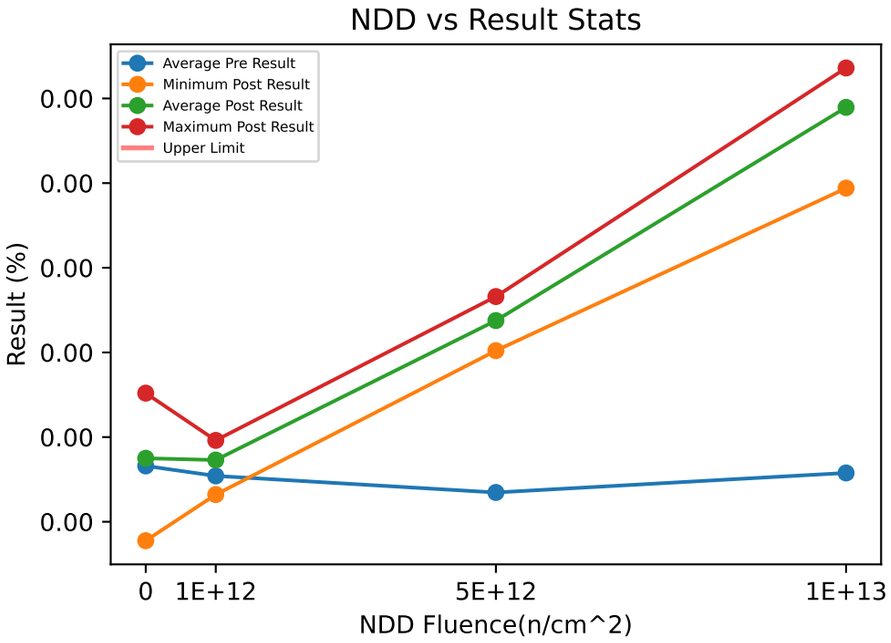
Test Results (No Limits Specified (%))

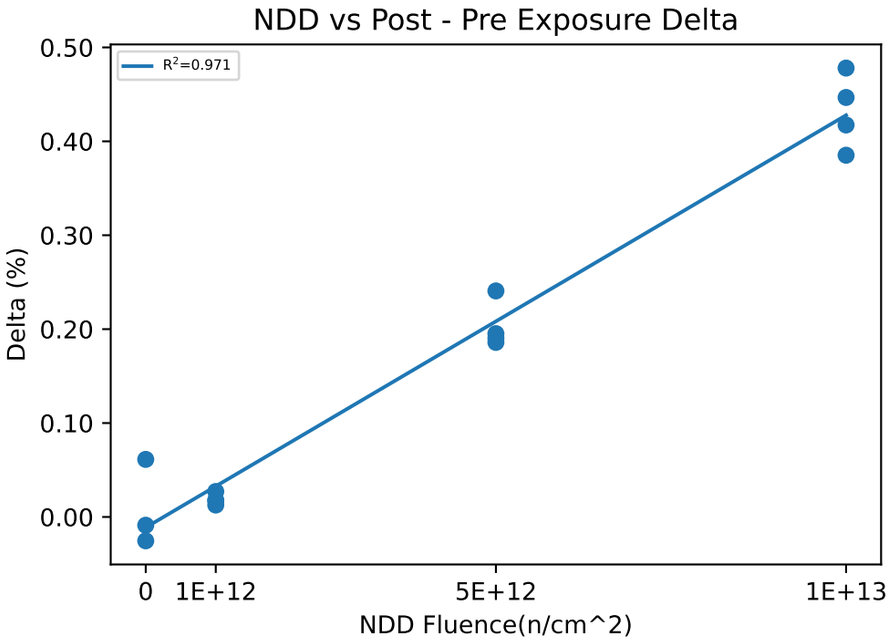
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.342e-13	1.607e-13	0.0265
2	0	CU2	1.052e-13	1.033e-13	-0.0019
3	0	CU3	7.7e-15	2.5e-15	-0.0052
10	1e+12	1E12n/cm2	3.38e-14	5.42e-14	0.0204
11	1e+12	1E12n/cm2	4.51e-14	5.76e-14	0.0125
12	1e+12	1E12n/cm2	3.63e-14	6.45e-14	0.0282
13	1e+12	1E12n/cm2	5.69e-14	7.46e-14	0.0177
20	5e+12	5E12n/cm2	2.3e-15	2.449e-13	0.2426
21	5e+12	5E12n/cm2	5.34e-14	2.488e-13	0.1954
22	5e+12	5E12n/cm2	2.21e-14	2.055e-13	0.1834
23	5e+12	5E12n/cm2	8.85e-14	2.77e-13	0.1885
30	1e+13	1E13n/cm2	7e-15	3.859e-13	0.3789
31	1e+13	1E13n/cm2	7.32e-14	5.554e-13	0.4822
32	1e+13	1E13n/cm2	1.137e-13	5.573e-13	0.4436
33	1e+13	1E13n/cm2	1.005e-13	5.101e-13	0.4096

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	7.7e-15	8.2367e-14	1.342e-13	6.6269e-14	2.5e-15	8.8833e-14	1.607e-13	8.0086e-14	-0.0052	0.0064667	0.0265	0.017428
1e+12	3.38e-14	4.3025e-14	5.69e-14	1.0443e-14	5.42e-14	6.2725e-14	7.46e-14	9.002e-15	0.0125	0.0197	0.0282	0.0065468
5e+12	2.3e-15	4.1575e-14	8.85e-14	3.7699e-14	2.055e-13	2.4405e-13	2.77e-13	2.9411e-14	0.1834	0.20248	0.2426	0.027198
1e+13	7e-15	7.36e-14	1.137e-13	4.7495e-14	3.859e-13	5.0218e-13	5.573e-13	8.0528e-14	0.3789	0.42857	0.4822	0.044456

ce Test: 50.4 ACC_VIN_6P3_VOUT_0N6_400MA(ACCURACY|//VOUT/0N6V/400mA/6.3/@ACC_VIN_6P3_VOUT_0N6_40





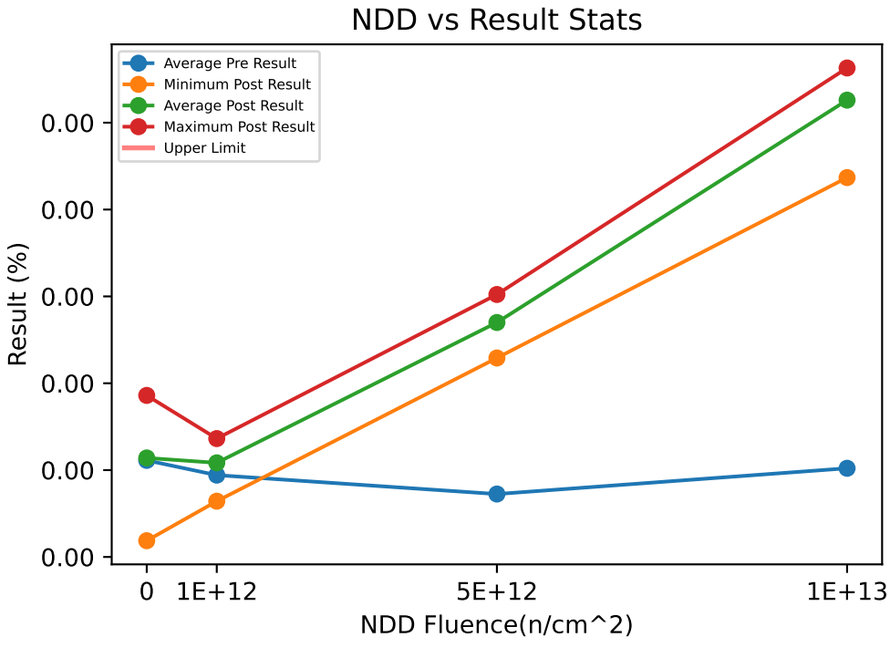
Test Results (No Limits Specified (%))

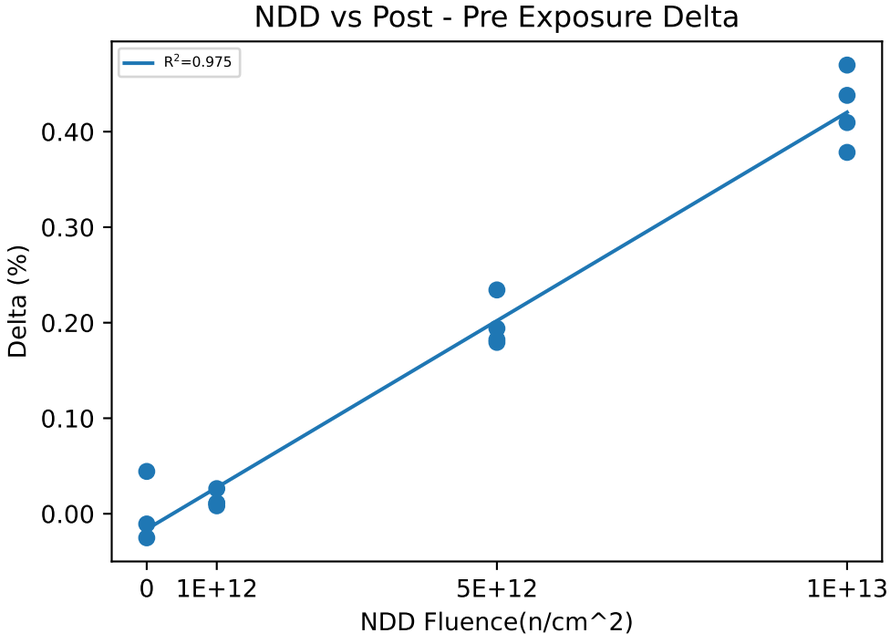
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	9.06e-14	1.519e-13	0.0613
2	0	CU2	1.042e-13	9.54e-14	-0.0088
3	0	CU3	3e-15	-2.24e-14	-0.0254
10	1e+12	1E12n/cm2	1.43e-14	3.21e-14	0.0178
11	1e+12	1E12n/cm2	8.34e-14	9.61e-14	0.0127
12	1e+12	1E12n/cm2	4.53e-14	7.24e-14	0.0271
13	1e+12	1E12n/cm2	7.36e-14	9.11e-14	0.0175
20	5e+12	5E12n/cm2	2.33e-14	2.64e-13	0.2407
21	5e+12	5E12n/cm2	2.32e-14	2.184e-13	0.1952
22	5e+12	5E12n/cm2	1.62e-14	2.021e-13	0.1859
23	5e+12	5E12n/cm2	7.56e-14	2.66e-13	0.1904
30	1e+13	1E13n/cm2	8.9e-15	3.941e-13	0.3852
31	1e+13	1E13n/cm2	3.32e-14	5.112e-13	0.478
32	1e+13	1E13n/cm2	8.93e-14	5.36e-13	0.4467
33	1e+13	1E13n/cm2	9.92e-14	5.166e-13	0.4174

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3e-15	6.5933e-14	1.042e-13	5.4924e-14	-2.24e-14	7.4967e-14	1.519e-13	8.8928e-14	-0.0254	0.0090333	0.0613	0.046019
1e+12	1.43e-14	5.415e-14	8.34e-14	3.1092e-14	3.21e-14	7.2925e-14	9.61e-14	2.9065e-14	0.0127	0.018775	0.0271	0.0060218
5e+12	1.62e-14	3.4575e-14	7.56e-14	2.7551e-14	2.021e-13	2.3763e-13	2.66e-13	3.2313e-14	0.1859	0.20305	0.2407	0.025386
1e+13	8.9e-15	5.765e-14	9.92e-14	4.3599e-14	3.941e-13	4.8947e-13	5.36e-13	6.4469e-14	0.3852	0.43183	0.478	0.03973

ce Test: 50.5 ACC_VIN_3P0_VOUT_1N2_150MA(ACCURACY|//VOUT/1N2V/150mA/3/@ACC_VIN_3P0_VOUT_1N2_150





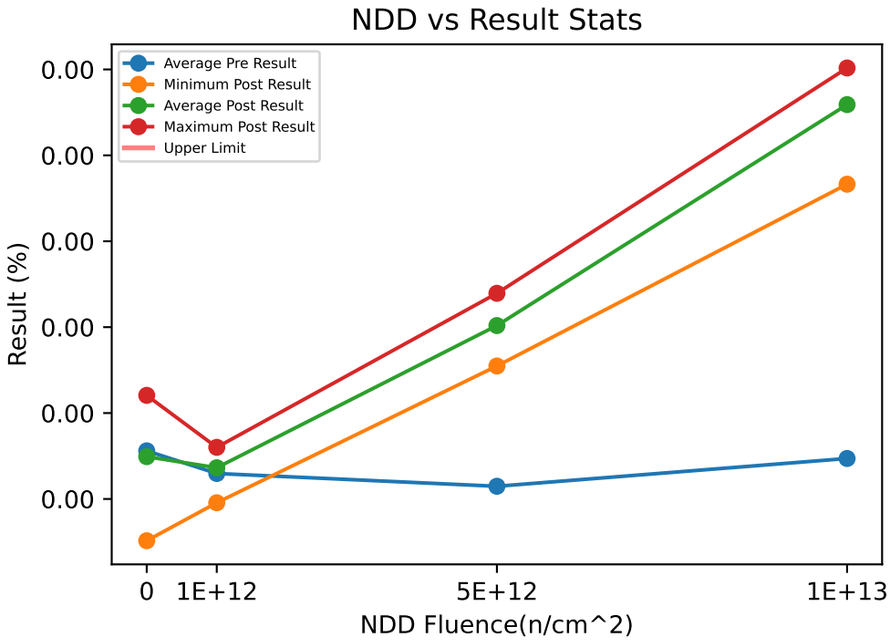
Test Results (No Limits Specified (%))

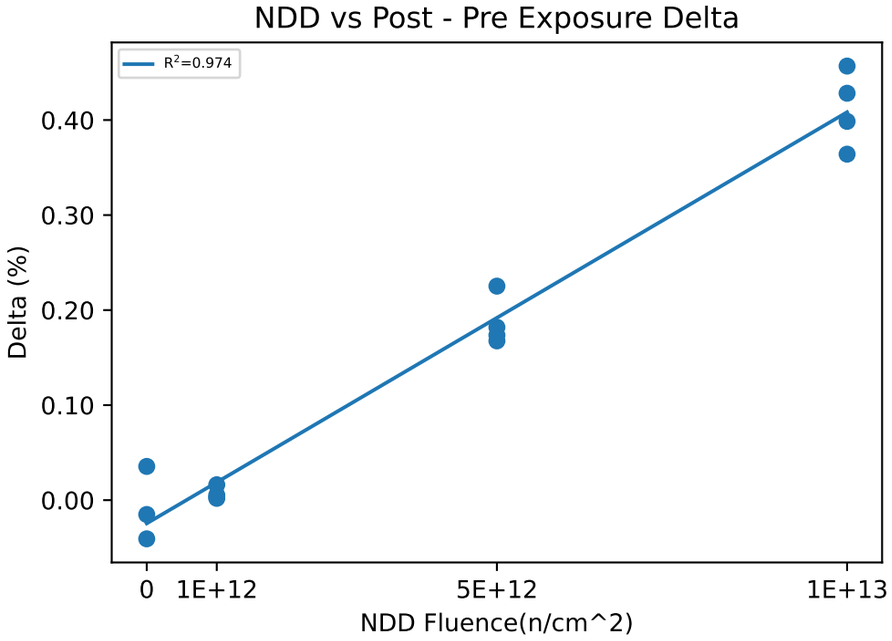
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.417e-13	1.86e-13	0.0443
2	0	CU2	1.48e-13	1.373e-13	-0.0107
3	0	CU3	4.39e-14	1.87e-14	-0.0252
10	1e+12	1E12n/cm2	5.3e-14	6.42e-14	0.0112
11	1e+12	1E12n/cm2	1.28e-13	1.363e-13	0.0083
12	1e+12	1E12n/cm2	8e-14	1.063e-13	0.0263
13	1e+12	1E12n/cm2	1.159e-13	1.267e-13	0.0108
20	5e+12	5E12n/cm2	6.79e-14	3.022e-13	0.2343
21	5e+12	5E12n/cm2	5.98e-14	2.538e-13	0.194
22	5e+12	5E12n/cm2	4.97e-14	2.291e-13	0.1794
23	5e+12	5E12n/cm2	1.124e-13	2.947e-13	0.1823
30	1e+13	1E13n/cm2	5.85e-14	4.368e-13	0.3783
31	1e+13	1E13n/cm2	7.94e-14	5.491e-13	0.4697
32	1e+13	1E13n/cm2	1.25e-13	5.63e-13	0.438
33	1e+13	1E13n/cm2	1.455e-13	5.55e-13	0.4095

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.39e-14	1.112e-13	1.48e-13	5.8369e-14	1.87e-14	1.14e-13	1.86e-13	8.6049e-14	-0.0252	0.0028	0.0443	0.036664
1e+12	5.3e-14	9.4225e-14	1.28e-13	3.4217e-14	6.42e-14	1.0838e-13	1.363e-13	3.1997e-14	0.0083	0.01415	0.0263	0.008201
5e+12	4.97e-14	7.245e-14	1.124e-13	2.7654e-14	2.291e-13	2.6995e-13	3.022e-13	3.4555e-14	0.1794	0.1975	0.2343	0.025332
1e+13	5.85e-14	1.021e-13	1.455e-13	4.0101e-14	4.368e-13	5.2597e-13	5.63e-13	5.9722e-14	0.3783	0.42388	0.4697	0.039086

Device Test: 50.6 ACC_VIN_3P0_VOUT_1N8_1MA(ACCURACY|//VOUT/1N8V/10mA/3/@ACC_VIN_3P0_VOUT_1N8_1MA





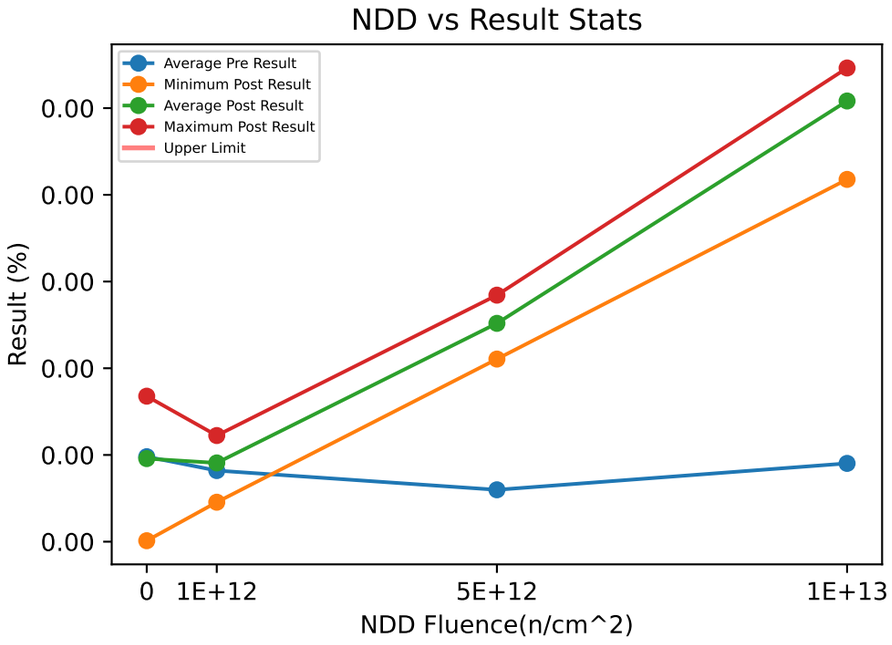
Test Results (No Limits Specified (%))

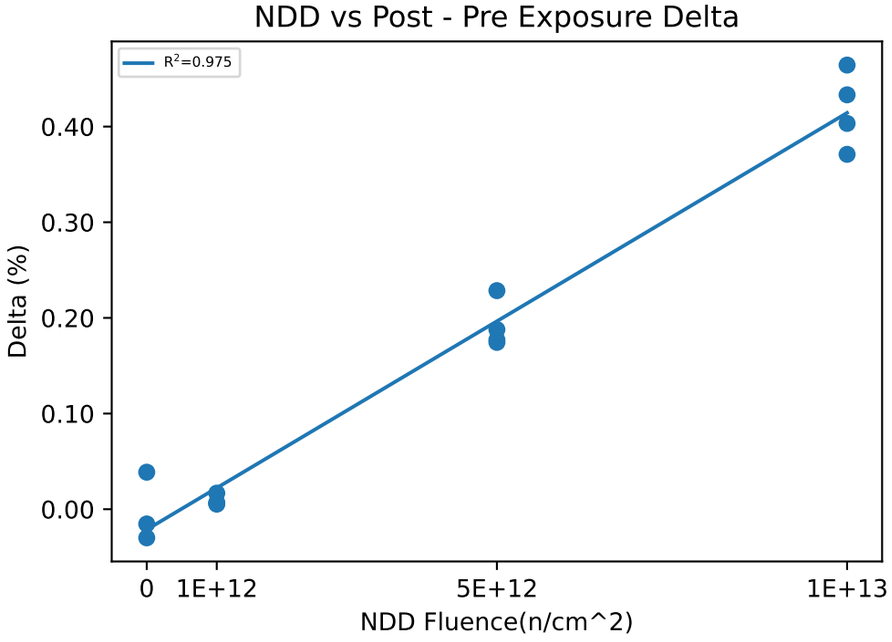
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	8.51e-14	1.206e-13	0.0355
2	0	CU2	9.09e-14	7.58e-14	-0.0151
3	0	CU3	-7.9e-15	-4.86e-14	-0.0407
10	1e+12	1E12n/cm2	-9.8e-15	-4.4e-15	0.0054
11	1e+12	1E12n/cm2	5.82e-14	6.01e-14	0.0019
12	1e+12	1E12n/cm2	1.89e-14	3.51e-14	0.0162
13	1e+12	1E12n/cm2	5.14e-14	5.46e-14	0.0032
20	5e+12	5E12n/cm2	1.42e-14	2.394e-13	0.2252
21	5e+12	5E12n/cm2	2.2e-15	1.841e-13	0.1819
22	5e+12	5E12n/cm2	-1.28e-14	1.548e-13	0.1676
23	5e+12	5E12n/cm2	5.55e-14	2.291e-13	0.1736
30	1e+13	1E13n/cm2	2.3e-15	3.664e-13	0.3641
31	1e+13	1E13n/cm2	2.29e-14	4.797e-13	0.4568
32	1e+13	1E13n/cm2	7.35e-14	5.017e-13	0.4282
33	1e+13	1E13n/cm2	8.98e-14	4.884e-13	0.3986

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-7.9e-15	5.6033e-14	9.09e-14	5.5444e-14	-4.86e-14	4.9267e-14	1.206e-13	8.7665e-14	-0.0407	-0.0067667	0.0355	0.038777
1e+12	-9.8e-15	2.9675e-14	5.82e-14	3.1411e-14	-4.4e-15	3.635e-14	6.01e-14	2.9208e-14	0.0019	0.006675	0.0162	0.0065122
5e+12	-1.28e-14	1.4775e-14	5.55e-14	2.9311e-14	1.548e-13	2.0185e-13	2.394e-13	3.9502e-14	0.1676	0.18707	0.2252	0.026084
1e+13	2.3e-15	4.7125e-14	8.98e-14	4.1283e-14	3.664e-13	4.5905e-13	5.017e-13	6.2426e-14	0.3641	0.41192	0.4568	0.039764

ce Test: 50.7 ACC_VIN_3P0_VOUT_1N8_150MA(ACCURACY|//VOUT/1N8V/150mA/3/@ACC_VIN_3P0_VOUT_1N8_150





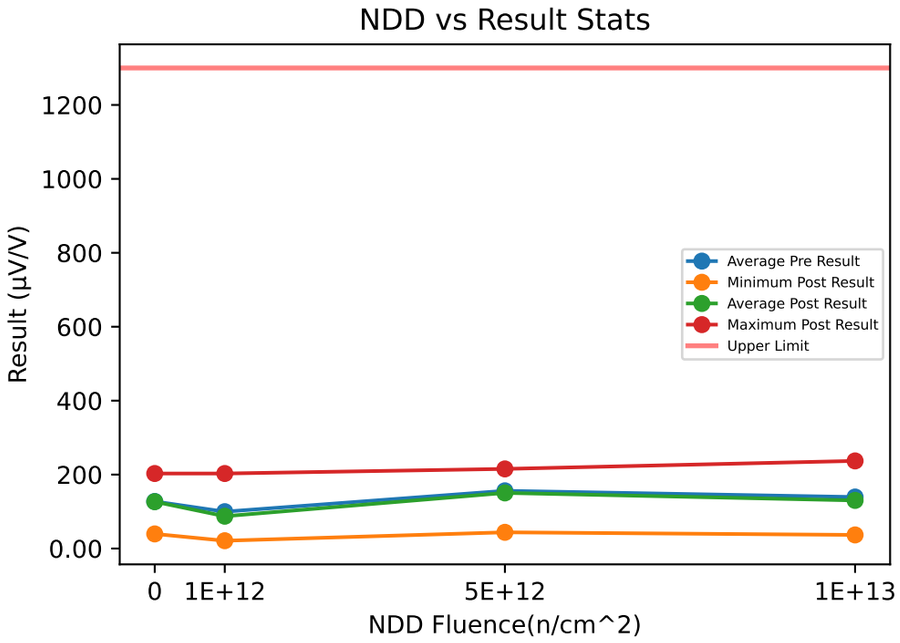
Test Results (No Limits Specified (%))

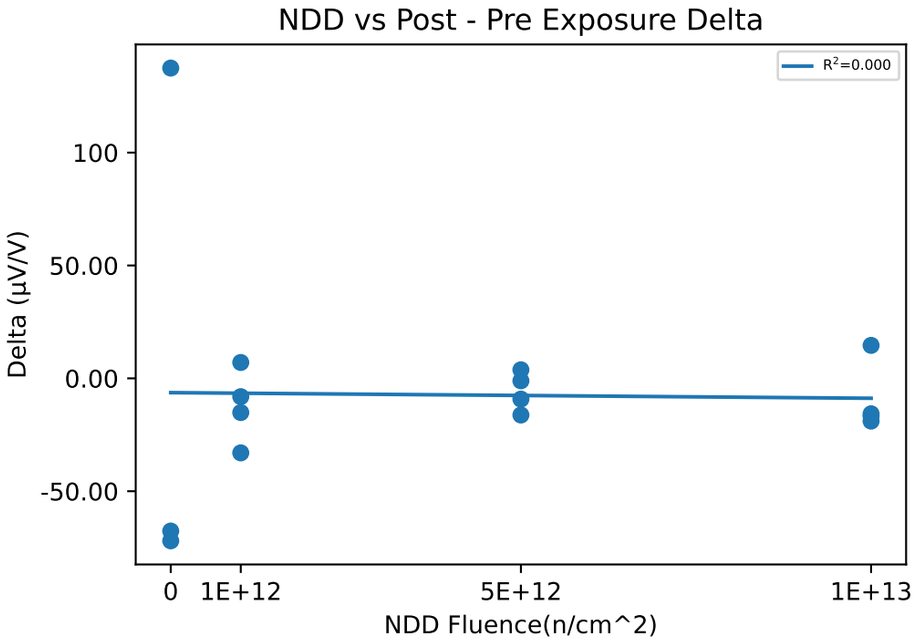
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.291e-13	1.678e-13	0.0387
2	0	CU2	1.339e-13	1.185e-13	-0.0154
3	0	CU3	3.1e-14	1.1e-15	-0.0299
10	1e+12	1E12n/cm2	3.85e-14	4.55e-14	0.007
11	1e+12	1E12n/cm2	1.171e-13	1.224e-13	0.0053
12	1e+12	1E12n/cm2	6.91e-14	8.59e-14	0.0168
13	1e+12	1E12n/cm2	1.033e-13	1.095e-13	0.0062
20	5e+12	5E12n/cm2	5.58e-14	2.843e-13	0.2285
21	5e+12	5E12n/cm2	4.75e-14	2.353e-13	0.1878
22	5e+12	5E12n/cm2	3.62e-14	2.106e-13	0.1744
23	5e+12	5E12n/cm2	9.98e-14	2.769e-13	0.1771
30	1e+13	1E13n/cm2	4.68e-14	4.178e-13	0.371
31	1e+13	1E13n/cm2	6.73e-14	5.316e-13	0.4643
32	1e+13	1E13n/cm2	1.131e-13	5.463e-13	0.4332
33	1e+13	1E13n/cm2	1.339e-13	5.372e-13	0.4033

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.1e-14	9.8e-14	1.339e-13	5.8073e-14	1.1e-15	9.58e-14	1.678e-13	8.5637e-14	-0.0299	-0.0022	0.0387	0.036155
1e+12	3.85e-14	8.2e-14	1.171e-13	3.5329e-14	4.55e-14	9.0825e-14	1.224e-13	3.3785e-14	0.0053	0.008825	0.0168	0.0053618
5e+12	3.62e-14	5.9825e-14	9.98e-14	2.7834e-14	2.106e-13	2.5178e-13	2.843e-13	3.4909e-14	0.1744	0.19195	0.2285	0.025044
1e+13	4.68e-14	9.0275e-14	1.339e-13	4.0175e-14	4.178e-13	5.0822e-13	5.463e-13	6.0587e-14	0.371	0.41795	0.4643	0.039999

Device Test: 55.1 LINE_REG(ACCURACY|//LINE_REGULATION_DN/1N8V/150mA//@LINE_REG)





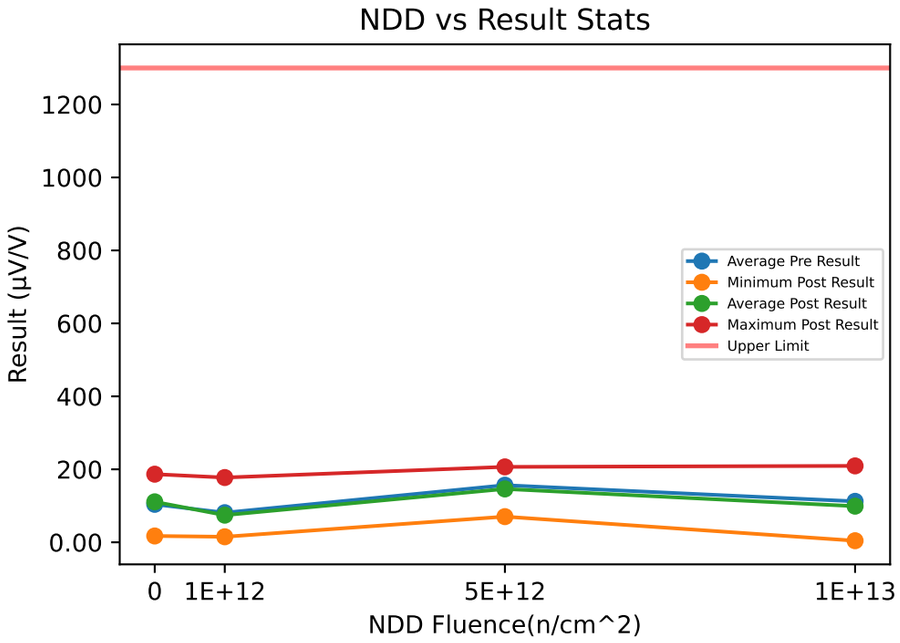
Test Results (Upper Limit = 1300.0 (µV/V))

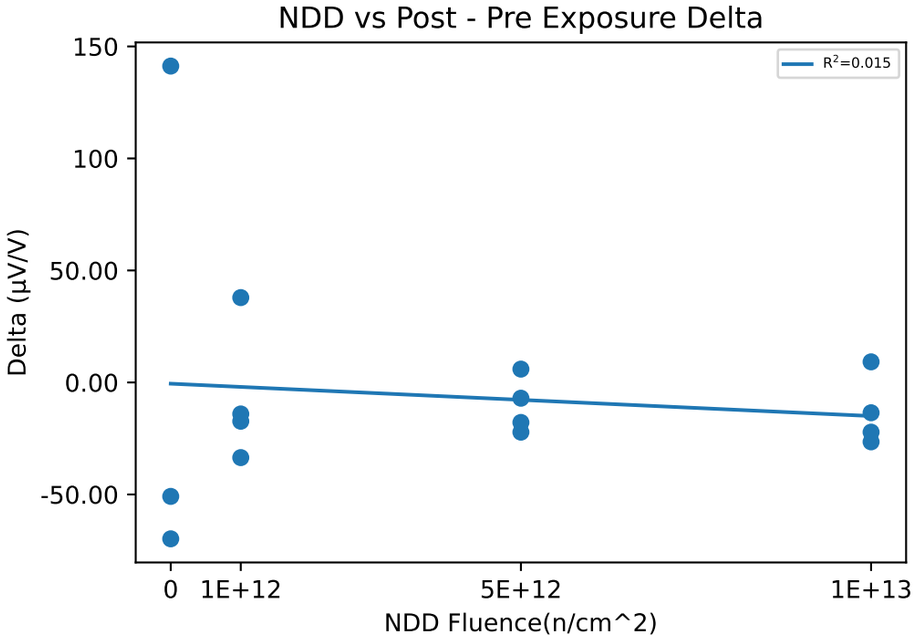
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	209.41	137.44	-71.969
2	0	CU2	107.14	39.502	-67.64
3	0	CU3	65.475	202.92	137.44
10	1e+12	1E12n/cm2	218.07	202.92	-15.151
11	1e+12	1E12n/cm2	14.069	21.104	7.0346
12	1e+12	1E12n/cm2	106.6	98.483	-8.1168
13	1e+12	1E12n/cm2	60.064	27.056	-33.008
20	5e+12	5E12n/cm2	40.043	43.831	3.7879
21	5e+12	5E12n/cm2	231.6	215.36	-16.234
22	5e+12	5E12n/cm2	182.36	181.27	-1.0822
23	5e+12	5E12n/cm2	170.45	161.25	-9.199
30	1e+13	1E13n/cm2	52.488	36.796	-15.692
31	1e+13	1E13n/cm2	222.4	237.01	14.61
32	1e+13	1E13n/cm2	202.38	185.6	-16.775
33	1e+13	1E13n/cm2	80.085	61.146	-18.939

Test Statistics (µV/V)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	65.475	127.34	209.41	74.065	39.502	126.62	202.92	82.244	-71.969	-0.72147	137.44	119.67
1e+12	14.069	99.701	218.07	87.489	21.104	87.39	202.92	84.664	-33.008	-12.31	7.0346	16.616
5e+12	40.043	156.11	231.6	81.781	43.831	150.43	215.36	74.495	-16.234	-5.6817	3.7879	8.842
1e+13	52.488	139.34	222.4	85.492	36.796	130.14	237.01	96.558	-18.939	-9.199	14.61	15.93

Device Test: 55.2 LINE_REG(ACCURACY|//LINE_REGULATION_UP/1N8V/150mA//@LINE_REG)





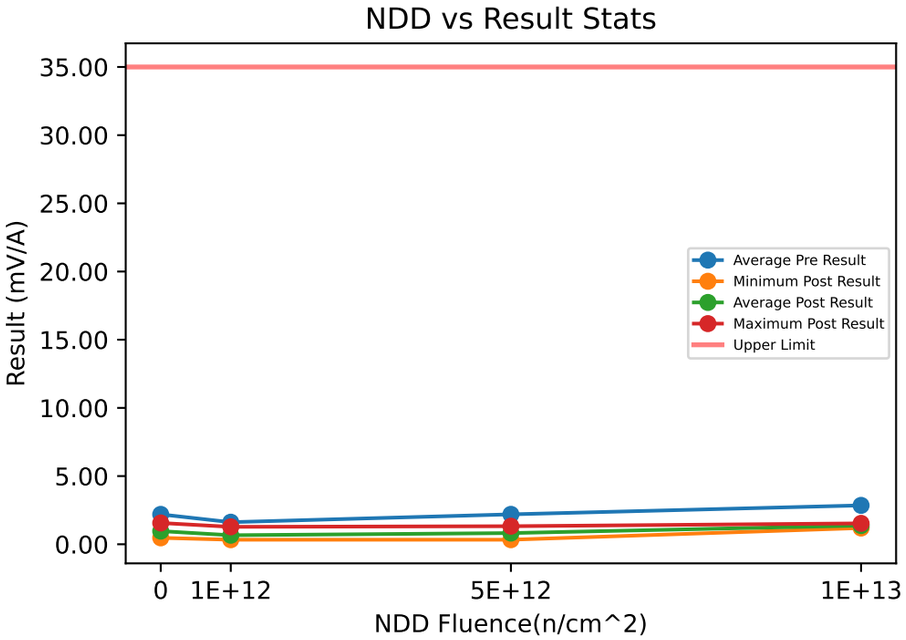
Test Results (Upper Limit = 1300.0 (µV/V))

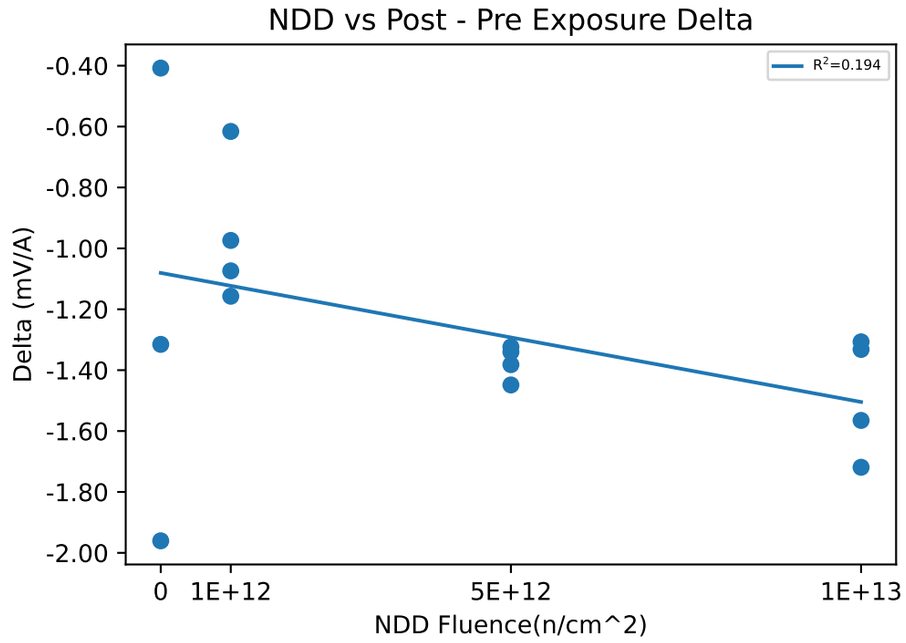
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	179.65	128.79	-50.865
2	0	CU2	87.12	17.316	-69.804
3	0	CU3	45.454	186.69	141.23
10	1e+12	1E12n/cm2	191.56	177.49	-14.069
11	1e+12	1E12n/cm2	2.1645	40.043	37.878
12	1e+12	1E12n/cm2	82.25	64.934	-17.316
13	1e+12	1E12n/cm2	48.7	15.151	-33.549
20	5e+12	5E12n/cm2	64.393	70.345	5.9523
21	5e+12	5E12n/cm2	228.89	206.71	-22.186
22	5e+12	5E12n/cm2	166.12	159.09	-7.0345
23	5e+12	5E12n/cm2	166.66	148.81	-17.857
30	1e+13	1E13n/cm2	17.857	4.3289	-13.528
31	1e+13	1E13n/cm2	200.21	209.41	9.199
32	1e+13	1E13n/cm2	174.24	152.05	-22.186
33	1e+13	1E13n/cm2	56.817	30.302	-26.515

Test Statistics (µV/V)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	45.454	104.07	179.65	68.686	17.316	110.93	186.69	86.085	-69.804	6.8541	141.23	116.76
1e+12	2.1645	81.168	191.56	80.586	15.151	74.404	177.49	71.664	-33.549	-6.7639	37.878	30.957
5e+12	64.393	156.52	228.89	68.118	70.345	146.24	206.71	56.533	-22.186	-10.281	5.9523	12.559
1e+13	17.857	112.28	200.21	88.625	4.3289	99.024	209.41	97.788	-26.515	-13.257	9.199	15.915

Device Test: 55.3 LOAD_REG(ACCURACY|//LOAD_REGULATION/1N8V//5/@LOAD_REG)





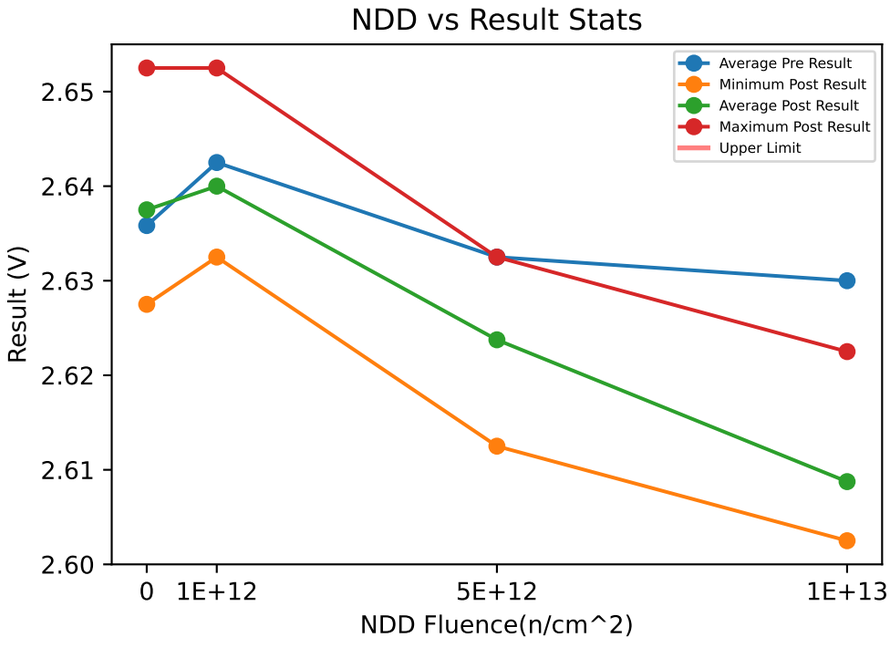
Test Results (Upper Limit = 35.0 (mV/A))

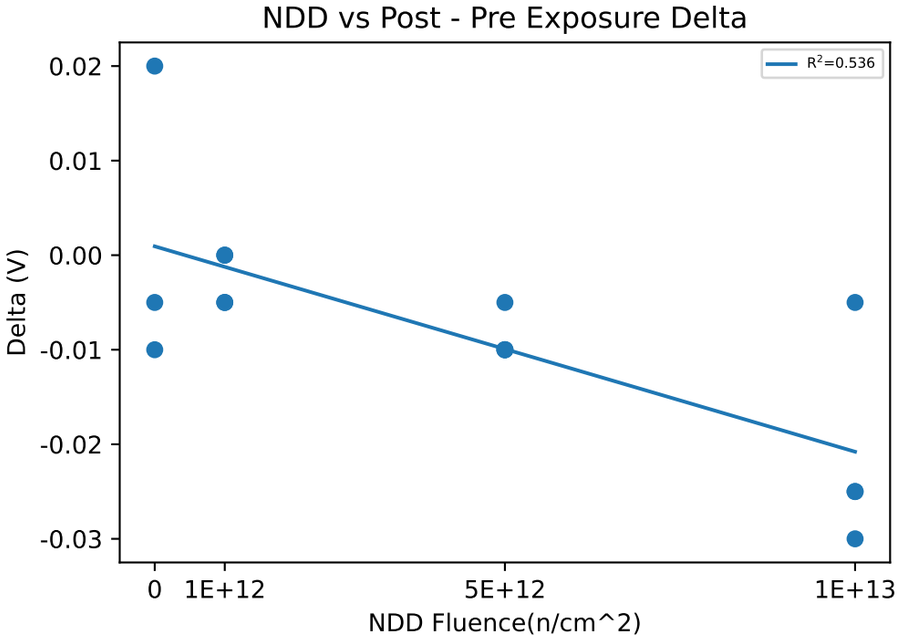
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	2.818	0.8575	-1.9605
2	0	CU2	1.7857	0.4704	-1.3153
3	0	CU3	1.9688	1.5609	-0.4079
10	1e+12	1E12n/cm2	2.3518	1.2779	-1.0739
11	1e+12	1E12n/cm2	1.5401	0.3829	-1.1572
12	1e+12	1E12n/cm2	1.6317	0.6577	-0.974
13	1e+12	1E12n/cm2	0.949	0.333	-0.616
20	5e+12	5E12n/cm2	1.6566	0.333	-1.3236
21	5e+12	5E12n/cm2	2.7056	1.3237	-1.3819
22	5e+12	5E12n/cm2	2.2019	0.8616	-1.3403
23	5e+12	5E12n/cm2	2.2103	0.7617	-1.4486
30	1e+13	1E13n/cm2	2.8388	1.5318	-1.307
31	1e+13	1E13n/cm2	2.8971	1.332	-1.5651
32	1e+13	1E13n/cm2	2.9095	1.1905	-1.719
33	1e+13	1E13n/cm2	2.7555	1.4236	-1.3319

Test Statistics (mV/A)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.7857	2.1908	2.818	0.5508	0.4704	0.96293	1.5609	0.55284	-1.9605	-1.2279	-0.4079	0.77998
1e+12	0.949	1.6181	2.3518	0.57512	0.333	0.66287	1.2779	0.43416	-1.1572	-0.95527	-0.616	0.23826
5e+12	1.6566	2.1936	2.7056	0.42851	0.333	0.82	1.3237	0.40662	-1.4486	-1.3736	-1.3236	0.055686
1e+13	2.7555	2.8502	2.9095	0.070271	1.1905	1.3695	1.5318	0.14459	-1.719	-1.4808	-1.307	0.19683

Device Test: 60.2 VUVLO_RISE(UVLO|//RISE////@VUVLO_RISE)





Test Results (No Limits Specified (V))

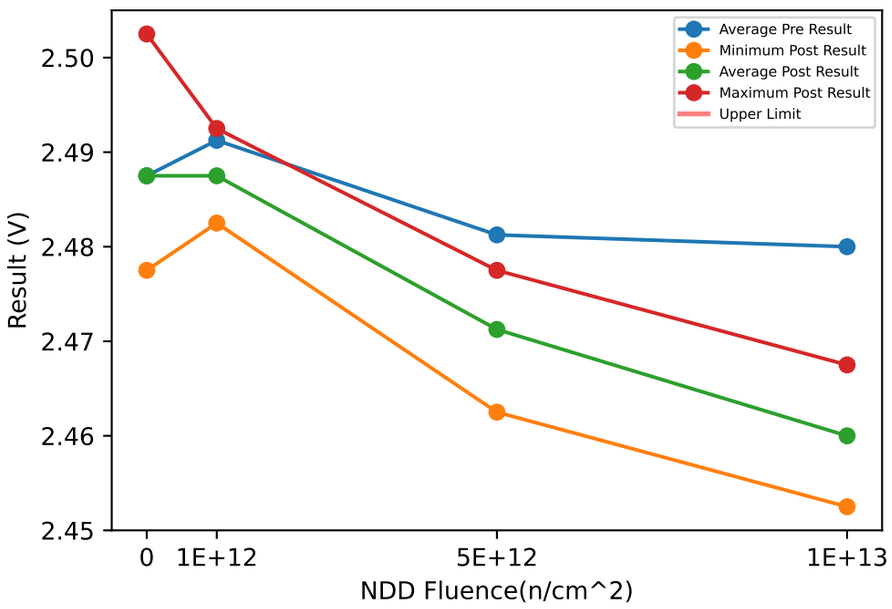
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	2.6375	2.6325	-0.005
2	0	CU2	2.6325	2.6525	0.02
3	0	CU3	2.6375	2.6275	-0.01
10	1e+12	1E12n/cm2	2.6525	2.6525	0
11	1e+12	1E12n/cm2	2.6475	2.6425	-0.005
12	1e+12	1E12n/cm2	2.6375	2.6325	-0.005
13	1e+12	1E12n/cm2	2.6325	2.6325	0
20	5e+12	5E12n/cm2	2.6425	2.6325	-0.01
21	5e+12	5E12n/cm2	2.6325	2.6225	-0.01
22	5e+12	5E12n/cm2	2.6325	2.6275	-0.005
23	5e+12	5E12n/cm2	2.6225	2.6125	-0.01
30	1e+13	1E13n/cm2	2.6275	2.6025	-0.025
31	1e+13	1E13n/cm2	2.6325	2.6025	-0.03
32	1e+13	1E13n/cm2	2.6325	2.6075	-0.025
33	1e+13	1E13n/cm2	2.6275	2.6225	-0.005

Test Statistics (V)

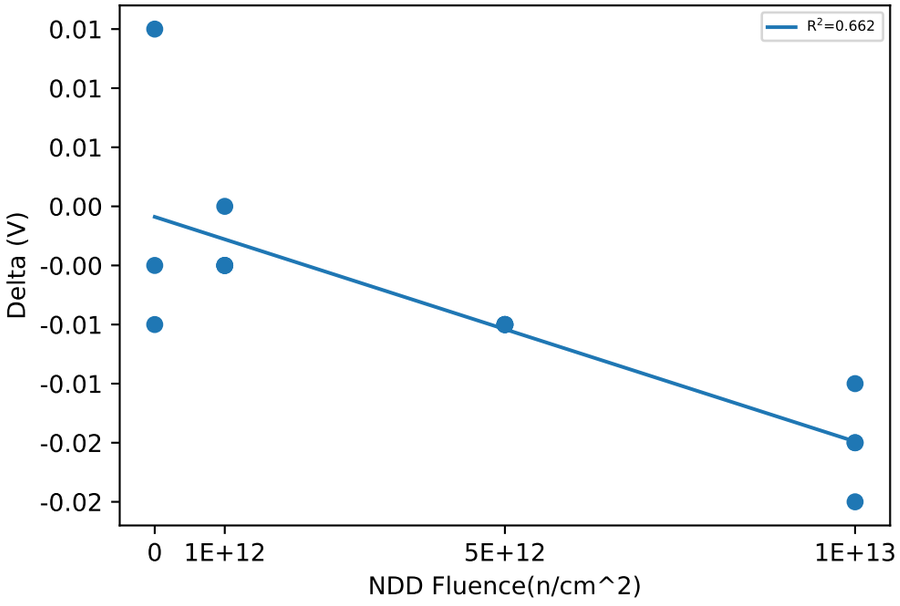
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.6325	2.6358	2.6375	0.0028868	2.6275	2.6375	2.6525	0.013229	-0.01	0.0016667	0.02	0.016073
1e+12	2.6325	2.6425	2.6525	0.0091287	2.6325	2.64	2.6525	0.0095743	-0.005	-0.0025	0	0.0028868
5e+12	2.6225	2.6325	2.6425	0.008165	2.6125	2.6237	2.6325	0.0085391	-0.01	-0.00875	-0.005	0.0025
1e+13	2.6275	2.63	2.6325	0.0028868	2.6025	2.6088	2.6225	0.0094648	-0.03	-0.02125	-0.005	0.011087

Device Test: 60.3 VUVLO_FALL(UVLO|//FALL////@VUVLO_FALL)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (No Limits Specified (V))

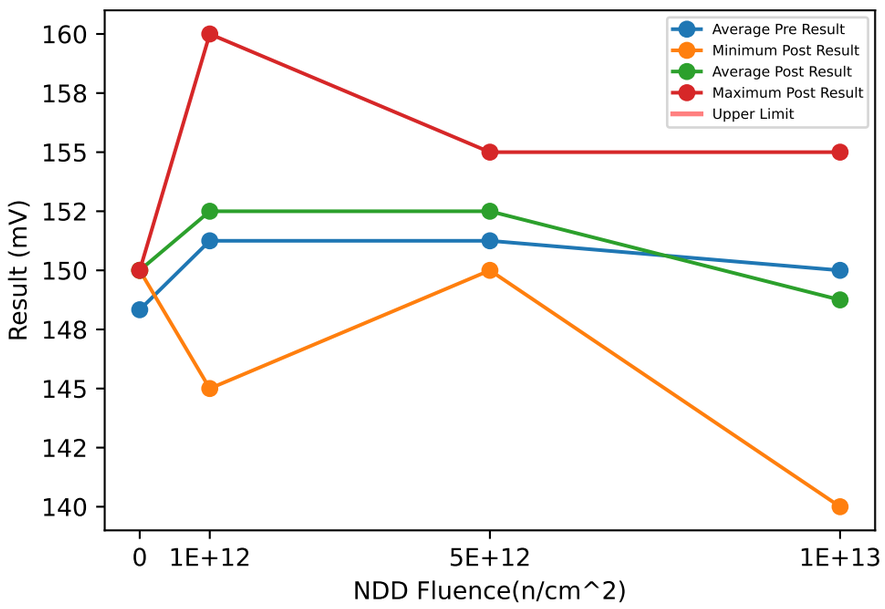
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	2.4925	2.4825	-0.01
2	0	CU2	2.4875	2.5025	0.015
3	0	CU3	2.4825	2.4775	-0.005
10	1e+12	1E12n/cm2	2.4975	2.4925	-0.005
11	1e+12	1E12n/cm2	2.4925	2.4875	-0.005
12	1e+12	1E12n/cm2	2.4925	2.4875	-0.005
13	1e+12	1E12n/cm2	2.4825	2.4825	0
20	5e+12	5E12n/cm2	2.4875	2.4775	-0.01
21	5e+12	5E12n/cm2	2.4825	2.4725	-0.01
22	5e+12	5E12n/cm2	2.4825	2.4725	-0.01
23	5e+12	5E12n/cm2	2.4725	2.4625	-0.01
30	1e+13	1E13n/cm2	2.4725	2.4525	-0.02
31	1e+13	1E13n/cm2	2.4775	2.4525	-0.025
32	1e+13	1E13n/cm2	2.4825	2.4675	-0.015
33	1e+13	1E13n/cm2	2.4875	2.4675	-0.02

Test Statistics (V)

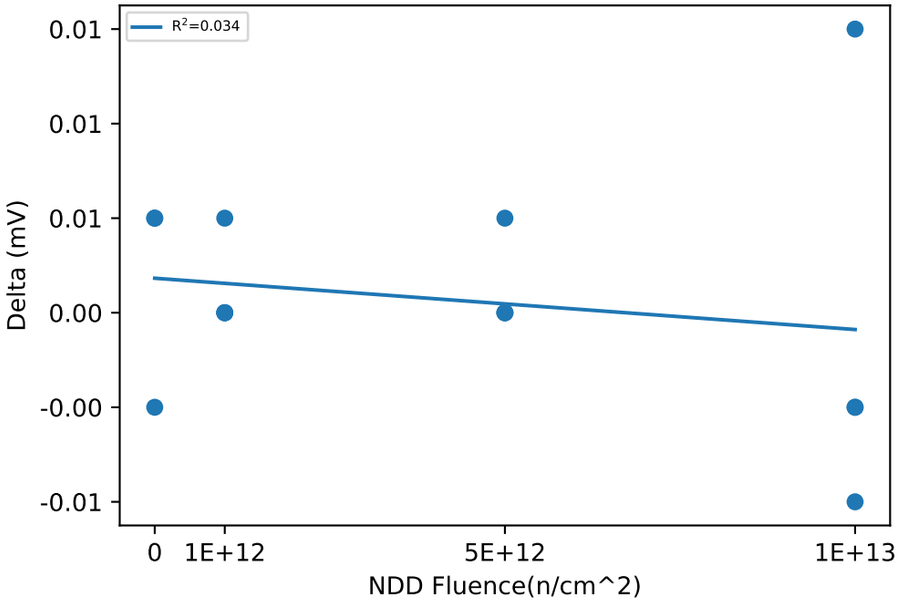
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	2.4825	2.4875	2.4925	0.005	2.4775	2.4875	2.5025	0.013229	-0.01	0	0.015	0.013229
1e+12	2.4825	2.4912	2.4975	0.0062915	2.4825	2.4875	2.4925	0.0040825	-0.005	-0.00375	0	0.0025
5e+12	2.4725	2.4813	2.4875	0.0062915	2.4625	2.4712	2.4775	0.0062915	-0.01	-0.01	-0.01	2.2204e-16
1e+13	2.4725	2.48	2.4875	0.006455	2.4525	2.46	2.4675	0.0086603	-0.025	-0.02	-0.015	0.0040825

Device Test: 60.4 VUVLO_HYS(UVLO|//HYSTERESIS////@VUVLO_HYS)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



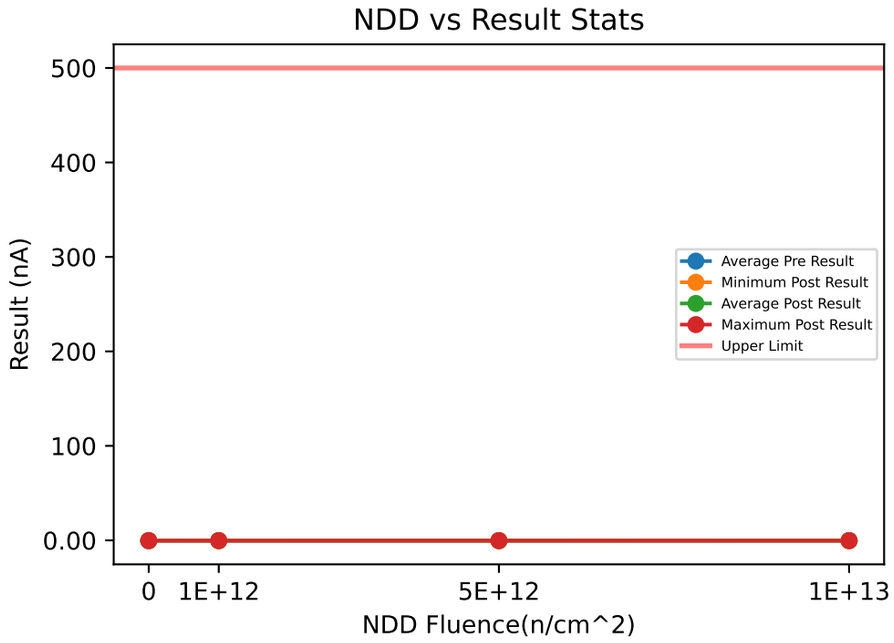
Test Results (No Limits Specified (mV))

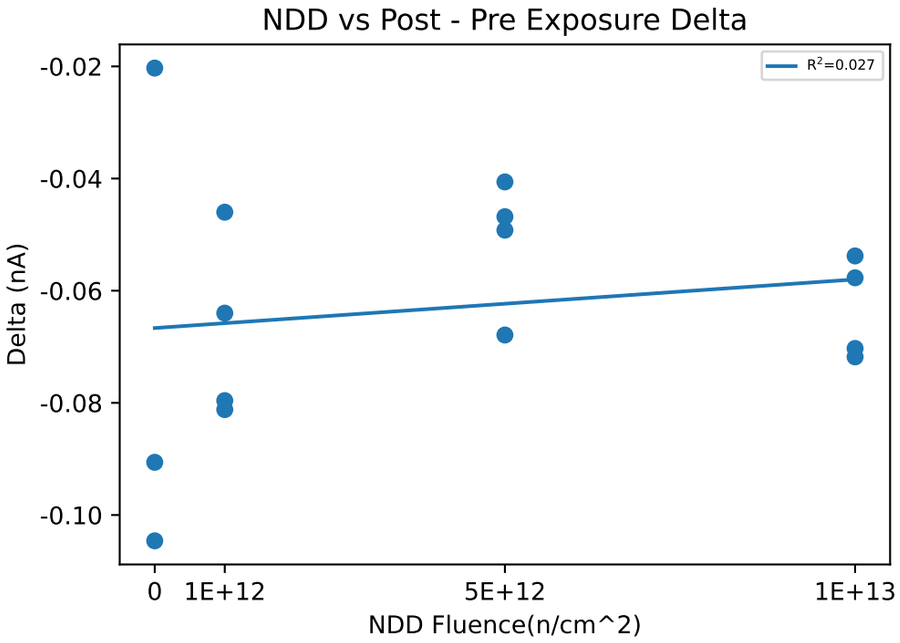
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	145	150	0.005
2	0	CU2	145	150	0.005
3	0	CU3	155	150	-0.005
10	1e+12	1E12n/cm2	155	160	0.005
11	1e+12	1E12n/cm2	155	155	0
12	1e+12	1E12n/cm2	145	145	0
13	1e+12	1E12n/cm2	150	150	0
20	5e+12	5E12n/cm2	155	155	0
21	5e+12	5E12n/cm2	150	150	0
22	5e+12	5E12n/cm2	150	155	0.005
23	5e+12	5E12n/cm2	150	150	0
30	1e+13	1E13n/cm2	155	150	-0.005
31	1e+13	1E13n/cm2	155	150	-0.005
32	1e+13	1E13n/cm2	150	140	-0.01
33	1e+13	1E13n/cm2	140	155	0.015

Test Statistics (mV)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	145	148.33	155	5.7735	150	150	150	0	-0.005	0.0016667	0.005	0.0057735
1e+12	145	151.25	155	4.7871	145	152.5	160	6.455	0	0.00125	0.005	0.0025
5e+12	150	151.25	155	2.5	150	152.5	155	2.8868	0	0.00125	0.005	0.0025
1e+13	140	150	155	7.0711	140	148.75	155	6.2915	-0.01	-0.00125	0.015	0.011087

Device Test: 65.1 I_EN_LKG(LEAK|/EN/CURRENT///3/@I_EN_LKG)





Test Results (Upper Limit = 500.0 (nA))

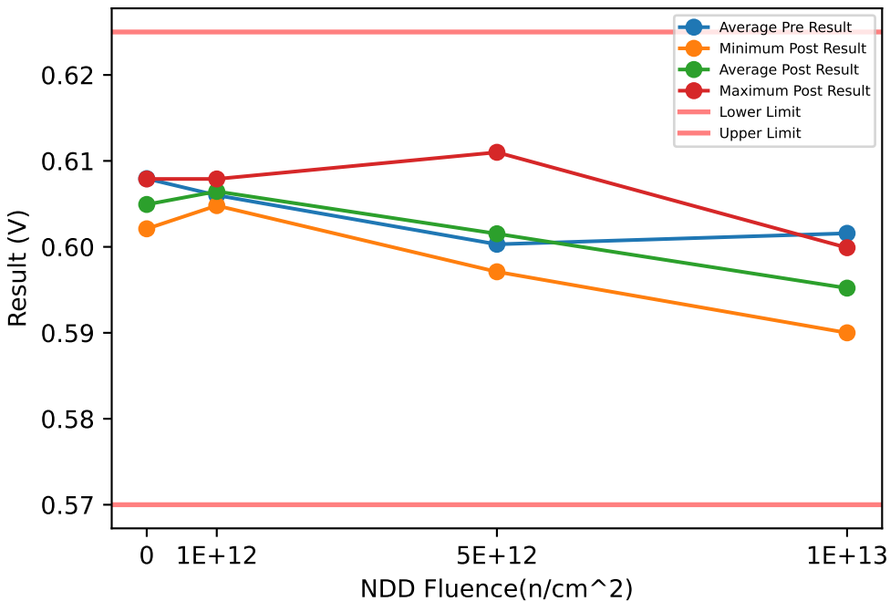
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	-0.3097	-0.33	-0.0203
2	0	CU2	-0.3113	-0.4159	-0.1046
3	0	CU3	-0.3011	-0.3917	-0.0906
10	1e+12	1E12n/cm2	-0.2972	-0.3784	-0.0812
11	1e+12	1E12n/cm2	-0.2933	-0.3573	-0.064
12	1e+12	1E12n/cm2	-0.2801	-0.3597	-0.0796
13	1e+12	1E12n/cm2	-0.3035	-0.3495	-0.046
20	5e+12	5E12n/cm2	-0.2996	-0.3675	-0.0679
21	5e+12	5E12n/cm2	-0.3074	-0.348	-0.0406
22	5e+12	5E12n/cm2	-0.3253	-0.3745	-0.0492
23	5e+12	5E12n/cm2	-0.2941	-0.3409	-0.0468
30	1e+13	1E13n/cm2	-0.2941	-0.3644	-0.0703
31	1e+13	1E13n/cm2	-0.2746	-0.3464	-0.0718
32	1e+13	1E13n/cm2	-0.284	-0.3378	-0.0538
33	1e+13	1E13n/cm2	-0.3074	-0.3651	-0.0577

Test Statistics (nA)

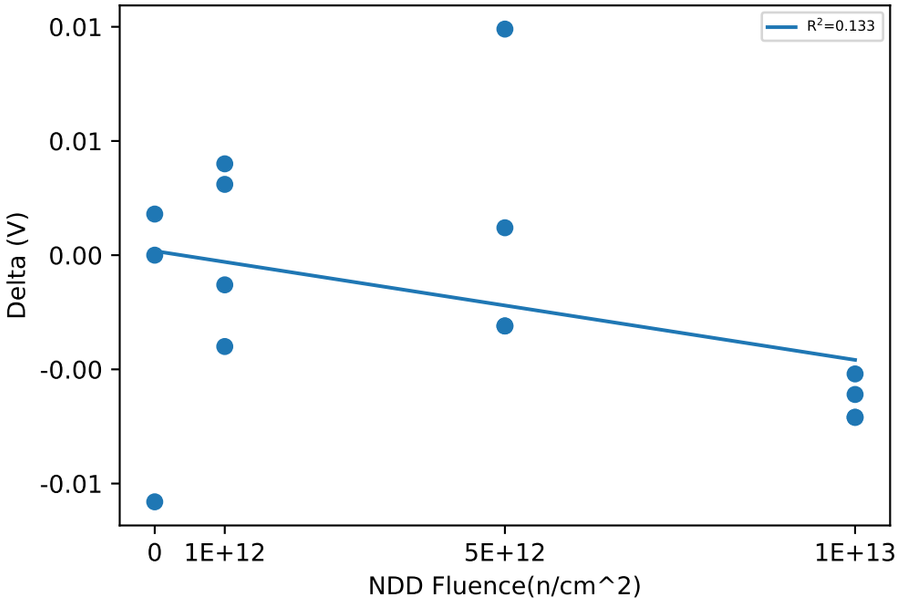
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-0.3113	-0.30737	-0.3011	0.0054857	-0.4159	-0.3792	-0.33	0.044293	-0.1046	-0.071833	-0.0203	0.045175
1e+12	-0.3035	-0.29353	-0.2801	0.0098875	-0.3784	-0.36123	-0.3495	0.01225	-0.0812	-0.0677	-0.046	0.016416
5e+12	-0.3253	-0.3066	-0.2941	0.013609	-0.3745	-0.35772	-0.3409	0.01586	-0.0679	-0.051125	-0.0406	0.011756
1e+13	-0.3074	-0.29002	-0.2746	0.014056	-0.3651	-0.35342	-0.3378	0.013543	-0.0718	-0.0634	-0.0538	0.0089967

Device Test: 65.2 V_EN_RISING(ENABLE|/EN/RISE///3/@V_EN_RISING)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.57, Upper Limit = 0.625 (V))

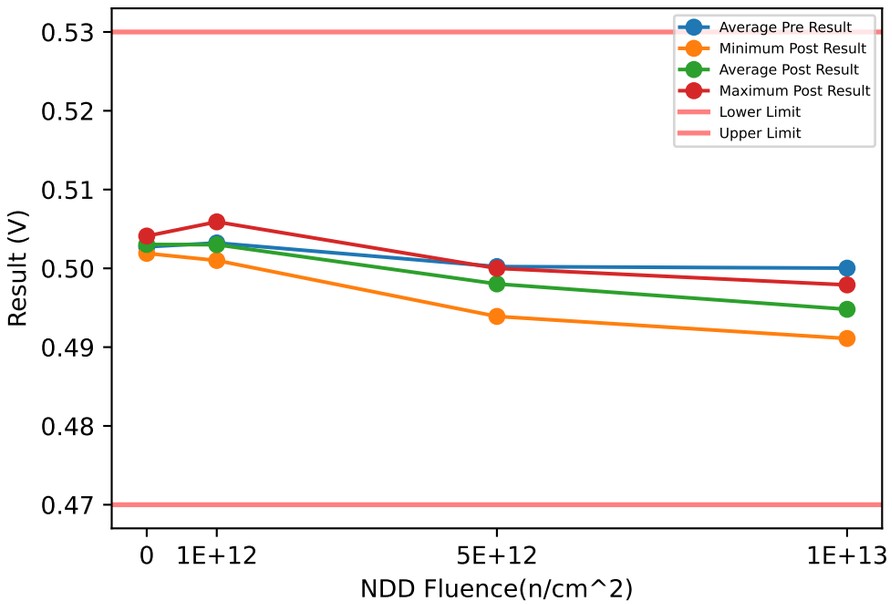
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.6129	0.6021	-0.0108
2	0	CU2	0.6061	0.6079	0.0018
3	0	CU3	0.6048	0.6048	0
10	1e+12	1E12n/cm2	0.6048	0.6079	0.0031
11	1e+12	1E12n/cm2	0.603	0.607	0.004
12	1e+12	1E12n/cm2	0.6101	0.6061	-0.004
13	1e+12	1E12n/cm2	0.6061	0.6048	-0.0013
20	5e+12	5E12n/cm2	0.6021	0.599	-0.0031
21	5e+12	5E12n/cm2	0.6011	0.611	0.0099
22	5e+12	5E12n/cm2	0.6021	0.599	-0.0031
23	5e+12	5E12n/cm2	0.5959	0.5971	0.0012
30	1e+13	1E13n/cm2	0.5971	0.59	-0.0071
31	1e+13	1E13n/cm2	0.6011	0.5959	-0.0052
32	1e+13	1E13n/cm2	0.607	0.5999	-0.0071
33	1e+13	1E13n/cm2	0.6011	0.595	-0.0061

Test Statistics (V)

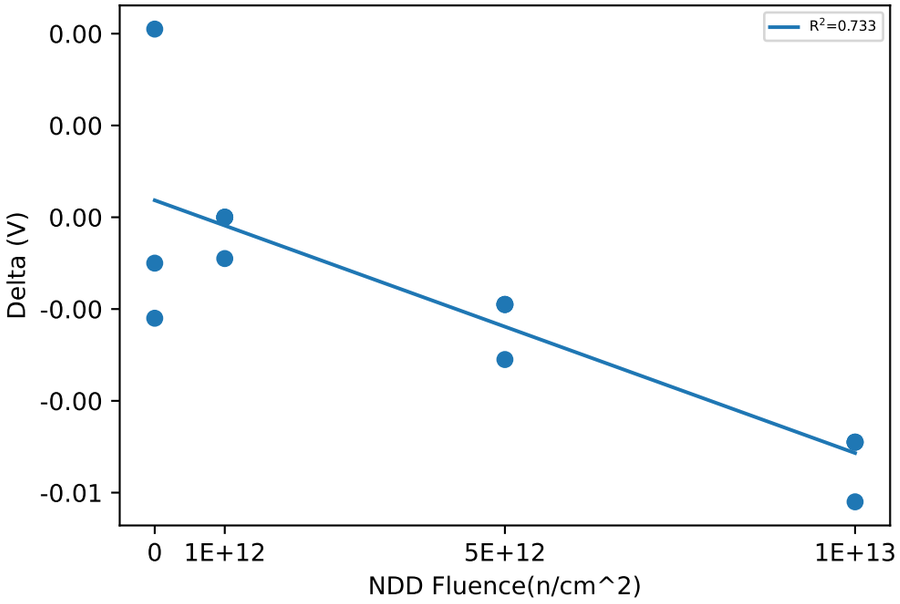
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.6048	0.60793	0.6129	0.0043501	0.6021	0.60493	0.6079	0.0029023	-0.0108	-0.003	0.0018	0.0068147
1e+12	0.603	0.606	0.6101	0.0030144	0.6048	0.60645	0.6079	0.0013229	-0.004	0.00045	0.004	0.0037634
5e+12	0.5959	0.6003	0.6021	0.002971	0.5971	0.60152	0.611	0.0063799	-0.0031	0.001225	0.0099	0.0061283
1e+13	0.5971	0.60157	0.607	0.0040787	0.59	0.5952	0.5999	0.0040686	-0.0071	-0.006375	-0.0052	0.00091424

Device Test: 65.3 V_EN_FALLING(ENABLE|/EN/FALL///3/@V_EN_FALLING)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.47, Upper Limit = 0.53 (V))

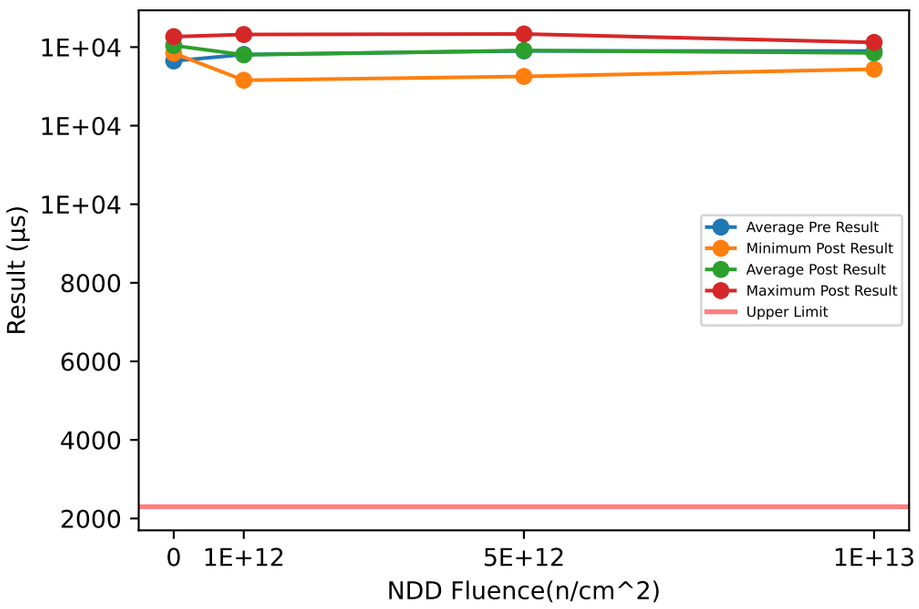
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.5041	0.5019	-0.0022
2	0	CU2	0.5	0.5041	0.0041
3	0	CU3	0.5041	0.5031	-0.001
10	1e+12	1E12n/cm2	0.5041	0.5041	0
11	1e+12	1E12n/cm2	0.5019	0.501	-0.0009
12	1e+12	1E12n/cm2	0.5059	0.5059	0
13	1e+12	1E12n/cm2	0.501	0.501	0
20	5e+12	5E12n/cm2	0.501	0.4991	-0.0019
21	5e+12	5E12n/cm2	0.501	0.4991	-0.0019
22	5e+12	5E12n/cm2	0.5019	0.5	-0.0019
23	5e+12	5E12n/cm2	0.497	0.4939	-0.0031
30	1e+13	1E13n/cm2	0.496	0.4911	-0.0049
31	1e+13	1E13n/cm2	0.5	0.4951	-0.0049
32	1e+13	1E13n/cm2	0.5041	0.4979	-0.0062
33	1e+13	1E13n/cm2	0.5	0.4951	-0.0049

Test Statistics (V)

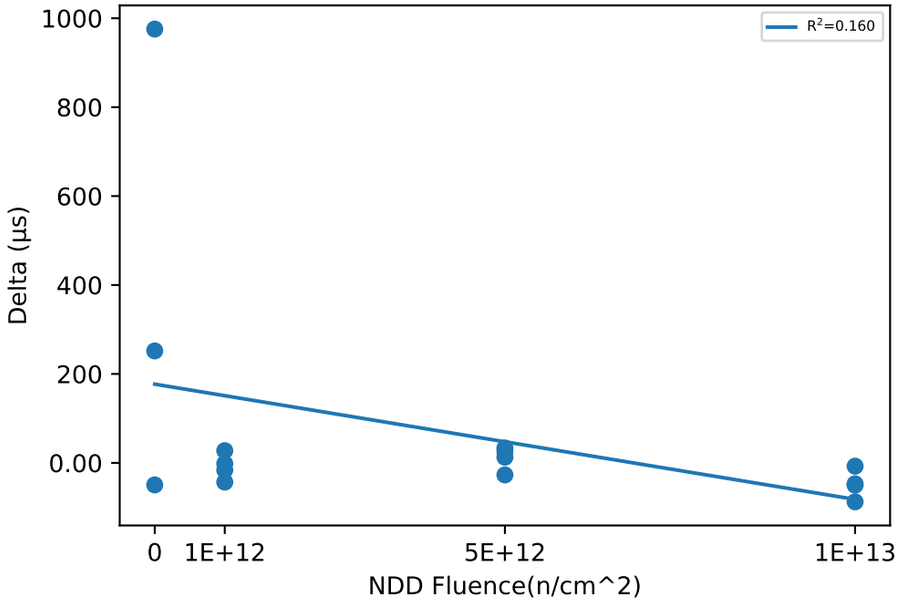
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5	0.50273	0.5041	0.0023671	0.5019	0.50303	0.5041	0.0011015	-0.0022	0.0003	0.0041	0.0033451
1e+12	0.501	0.50323	0.5059	0.0022081	0.501	0.503	0.5059	0.0024235	-0.0009	-0.000225	0	0.00045
5e+12	0.497	0.50023	0.5019	0.0021915	0.4939	0.49802	0.5	0.0027825	-0.0031	-0.0022	-0.0019	0.0006
1e+13	0.496	0.50002	0.5041	0.0033069	0.4911	0.4948	0.4979	0.0027976	-0.0062	-0.005225	-0.0049	0.00065

Device Test: 65.4 T_EN_DELAY(ENABLE|/EN/DELAY///3/@T_EN_DELAY)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Upper Limit = 2300.0 (µs))

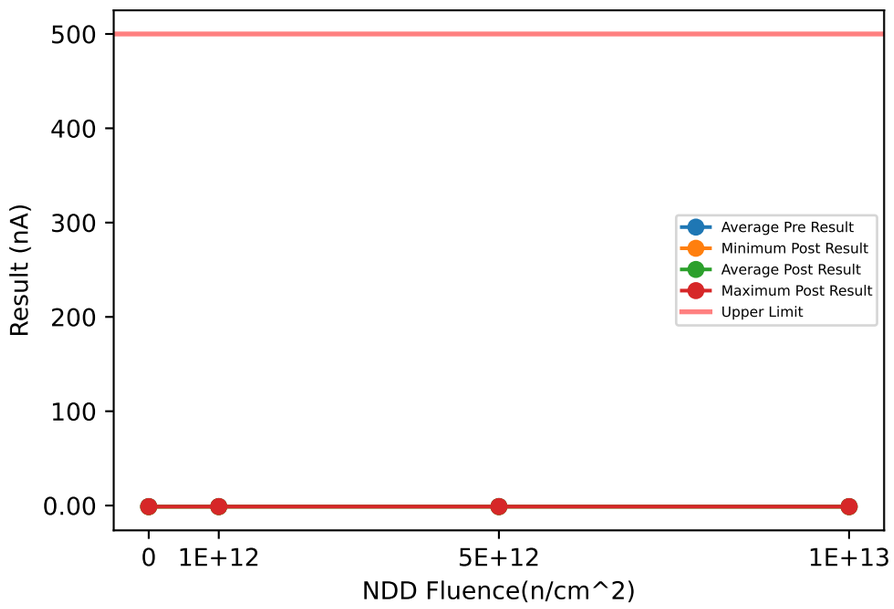
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.33e+04	1.43e+04	975.6
2	0	CU2	1.38e+04	1.4e+04	251.74
3	0	CU3	1.39e+04	1.38e+04	-49.502
10	1e+12	1E12n/cm2	1.44e+04	1.43e+04	-43.256
11	1e+12	1E12n/cm2	1.32e+04	1.32e+04	-16.265
12	1e+12	1E12n/cm2	1.37e+04	1.37e+04	-1.673
13	1e+12	1E12n/cm2	1.4e+04	1.41e+04	27.494
20	5e+12	5E12n/cm2	1.32e+04	1.33e+04	12.769
21	5e+12	5E12n/cm2	1.41e+04	1.41e+04	33.399
22	5e+12	5E12n/cm2	1.4e+04	1.39e+04	-27.053
23	5e+12	5E12n/cm2	1.43e+04	1.43e+04	25.843
30	1e+13	1E13n/cm2	1.35e+04	1.34e+04	-50.002
31	1e+13	1E13n/cm2	1.42e+04	1.41e+04	-47.077
32	1e+13	1E13n/cm2	1.4e+04	1.4e+04	-7.4155
33	1e+13	1E13n/cm2	1.4e+04	1.39e+04	-87.568

Test Statistics (µs)

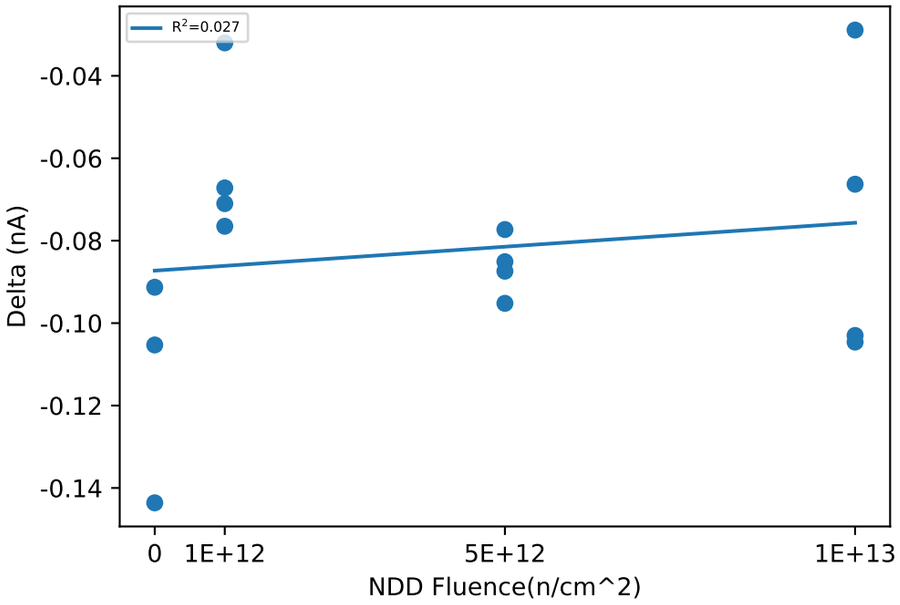
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.33e+04	1.36e+04	1.39e+04	316.71	1.38e+04	1.4e+04	1.43e+04	212.08	-49.502	392.61	975.6	526.87
1e+12	1.32e+04	1.38e+04	1.44e+04	508.49	1.32e+04	1.38e+04	1.43e+04	504.44	-43.256	-8.425	27.494	29.498
5e+12	1.32e+04	1.39e+04	1.43e+04	463.97	1.33e+04	1.39e+04	1.43e+04	469.86	-27.053	11.24	33.399	26.913
1e+13	1.35e+04	1.39e+04	1.42e+04	289.77	1.34e+04	1.39e+04	1.41e+04	294.91	-87.568	-48.016	-7.4155	32.75

Device Test: 65.5 I_EN_LKG(LEAK|/EN/CURRENT///6.3/@I_EN_LKG)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Upper Limit = 500.0 (nA))

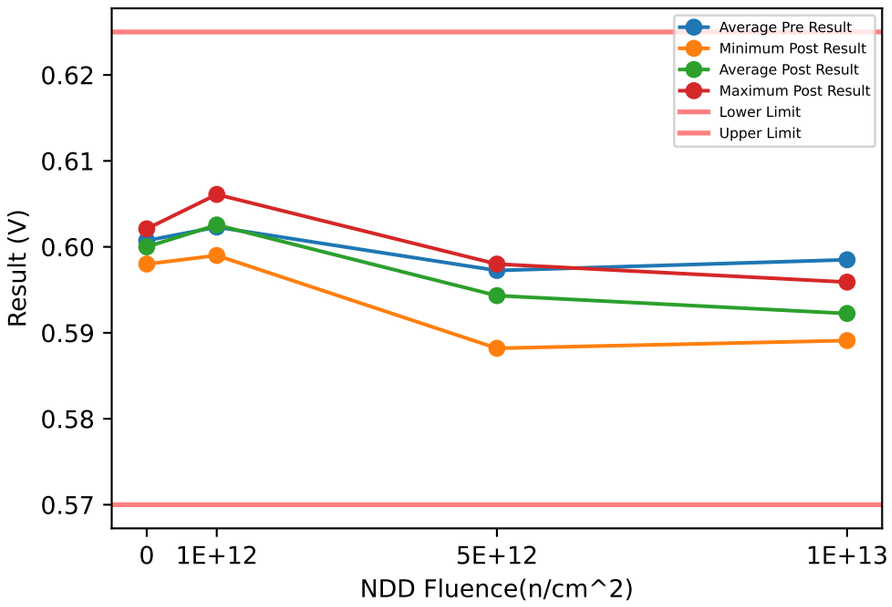
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	-1.0411	-1.1464	-0.1053
2	0	CU2	-1.0965	-1.2401	-0.1436
3	0	CU3	-1.0395	-1.1308	-0.0913
10	1e+12	1E12n/cm2	-1.0411	-1.1121	-0.071
11	1e+12	1E12n/cm2	-1.0426	-1.0746	-0.032
12	1e+12	1E12n/cm2	-1.0707	-1.1379	-0.0672
13	1e+12	1E12n/cm2	-1.0832	-1.1597	-0.0765
20	5e+12	5E12n/cm2	-0.9755	-1.0707	-0.0952
21	5e+12	5E12n/cm2	-1.0434	-1.1285	-0.0851
22	5e+12	5E12n/cm2	-1.0333	-1.1207	-0.0874
23	5e+12	5E12n/cm2	-1.0598	-1.1371	-0.0773
30	1e+13	1E13n/cm2	-1.1113	-1.1402	-0.0289
31	1e+13	1E13n/cm2	-1.052	-1.1183	-0.0663
32	1e+13	1E13n/cm2	-1.077	-1.1816	-0.1046
33	1e+13	1E13n/cm2	-1.0801	-1.1831	-0.103

Test Statistics (nA)

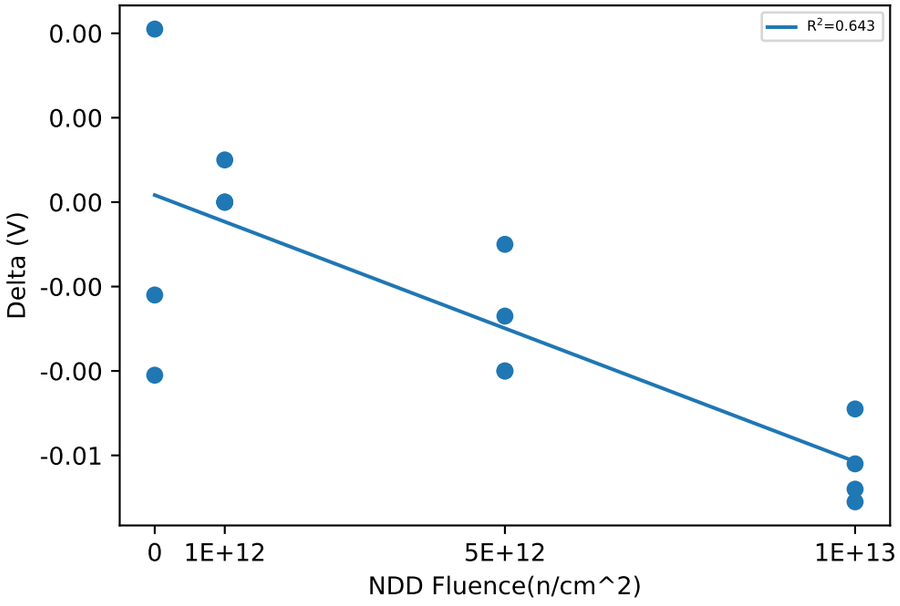
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	-1.0965	-1.059	-1.0395	0.032457	-1.2401	-1.1724	-1.1308	0.059118	-0.1436	-0.1134	-0.0913	0.027075
1e+12	-1.0832	-1.0594	-1.0411	0.020907	-1.1597	-1.1211	-1.0746	0.036585	-0.0765	-0.061675	-0.032	0.020148
5e+12	-1.0598	-1.028	-0.9755	0.036664	-1.1371	-1.1142	-1.0707	0.029796	-0.0952	-0.08625	-0.0773	0.0073677
1e+13	-1.1113	-1.0801	-1.052	0.024308	-1.1831	-1.1558	-1.1183	0.03194	-0.1046	-0.0757	-0.0289	0.035866

Device Test: 65.6 V_EN_RISING(ENABLE|/EN/RISE///6.3/@V_EN_RISING)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.57, Upper Limit = 0.625 (V))

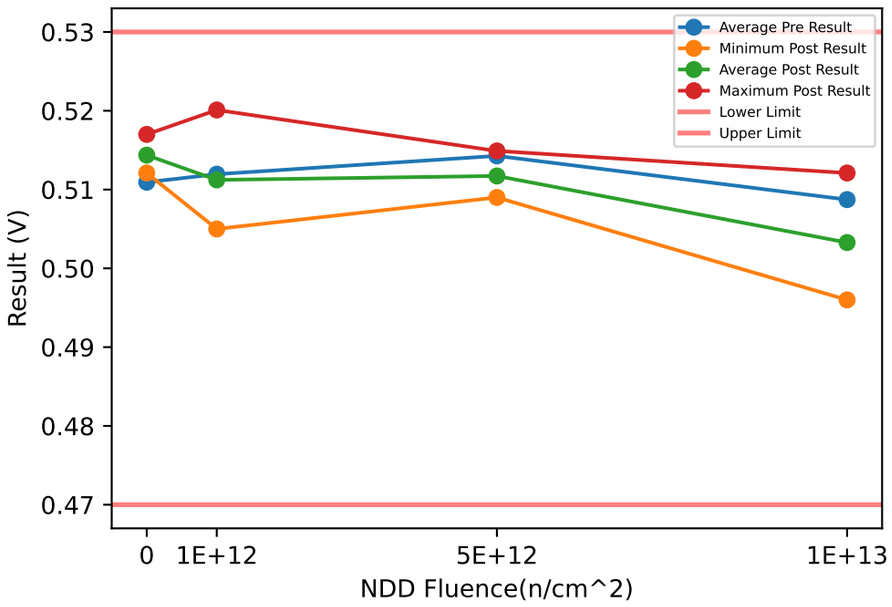
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.6021	0.598	-0.0041
2	0	CU2	0.598	0.6021	0.0041
3	0	CU3	0.6021	0.5999	-0.0022
10	1e+12	1E12n/cm2	0.603	0.603	0
11	1e+12	1E12n/cm2	0.6021	0.6021	0
12	1e+12	1E12n/cm2	0.6061	0.6061	0
13	1e+12	1E12n/cm2	0.598	0.599	0.001
20	5e+12	5E12n/cm2	0.599	0.598	-0.001
21	5e+12	5E12n/cm2	0.6011	0.5971	-0.004
22	5e+12	5E12n/cm2	0.598	0.594	-0.004
23	5e+12	5E12n/cm2	0.5909	0.5882	-0.0027
30	1e+13	1E13n/cm2	0.5959	0.5891	-0.0068
31	1e+13	1E13n/cm2	0.598	0.5909	-0.0071
32	1e+13	1E13n/cm2	0.6021	0.5959	-0.0062
33	1e+13	1E13n/cm2	0.598	0.5931	-0.0049

Test Statistics (V)

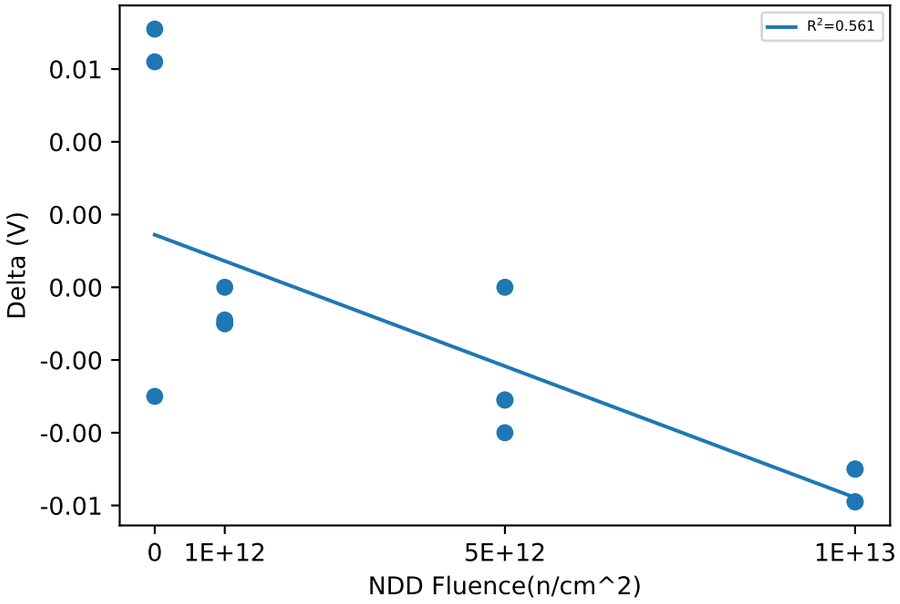
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.598	0.60073	0.6021	0.0023671	0.598	0.6	0.6021	0.0020518	-0.0041	-0.00073333	0.0041	0.0042922
1e+12	0.598	0.6023	0.6061	0.0033397	0.599	0.60255	0.6061	0.0029218	0	0.00025	0.001	0.0005
5e+12	0.5909	0.59725	0.6011	0.0044261	0.5882	0.59432	0.598	0.0044282	-0.004	-0.002925	-0.001	0.0014221
1e+13	0.5959	0.5985	0.6021	0.0025962	0.5891	0.59225	0.5959	0.002932	-0.0071	-0.00625	-0.0049	0.00097468

Device Test: 65.7 V_EN_FALLING(ENABLE|/EN/FALL///6.3/@V_EN_FALLING)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 0.47, Upper Limit = 0.53 (V))

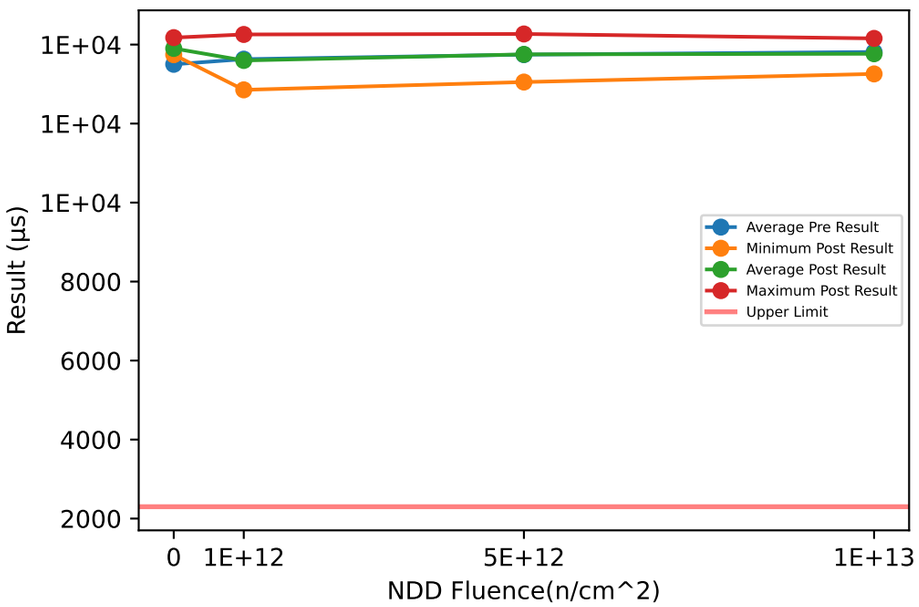
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.517	0.514	-0.003
2	0	CU2	0.5059	0.5121	0.0062
3	0	CU3	0.5099	0.517	0.0071
10	1e+12	1E12n/cm2	0.514	0.513	-0.001
11	1e+12	1E12n/cm2	0.5059	0.505	-0.0009
12	1e+12	1E12n/cm2	0.5211	0.5201	-0.001
13	1e+12	1E12n/cm2	0.5068	0.5068	0
20	5e+12	5E12n/cm2	0.5121	0.509	-0.0031
21	5e+12	5E12n/cm2	0.5161	0.5121	-0.004
22	5e+12	5E12n/cm2	0.5149	0.5149	0
23	5e+12	5E12n/cm2	0.514	0.5109	-0.0031
30	1e+13	1E13n/cm2	0.501	0.496	-0.005
31	1e+13	1E13n/cm2	0.5109	0.5059	-0.005
32	1e+13	1E13n/cm2	0.518	0.5121	-0.0059
33	1e+13	1E13n/cm2	0.505	0.4991	-0.0059

Test Statistics (V)

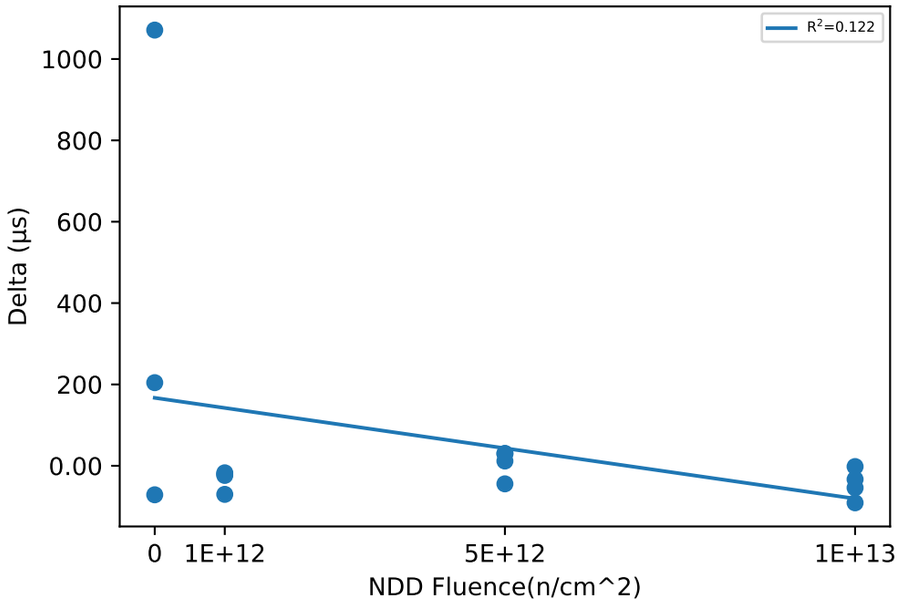
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.5059	0.51093	0.517	0.0056217	0.5121	0.51437	0.517	0.0024705	-0.003	0.0034333	0.0071	0.0055896
1e+12	0.5059	0.51195	0.5211	0.0070958	0.505	0.51123	0.5201	0.0068373	-0.001	-0.000725	0	0.00048563
5e+12	0.5121	0.51428	0.5161	0.001686	0.509	0.51172	0.5149	0.0024717	-0.004	-0.00255	0	0.0017521
1e+13	0.501	0.50872	0.518	0.0074006	0.496	0.50328	0.5121	0.0071909	-0.0059	-0.00545	-0.005	0.00051962

Device Test: 65.8 T_EN_DELAY(ENABLE|/EN/DELAY///6.3/@T_EN_DELAY)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



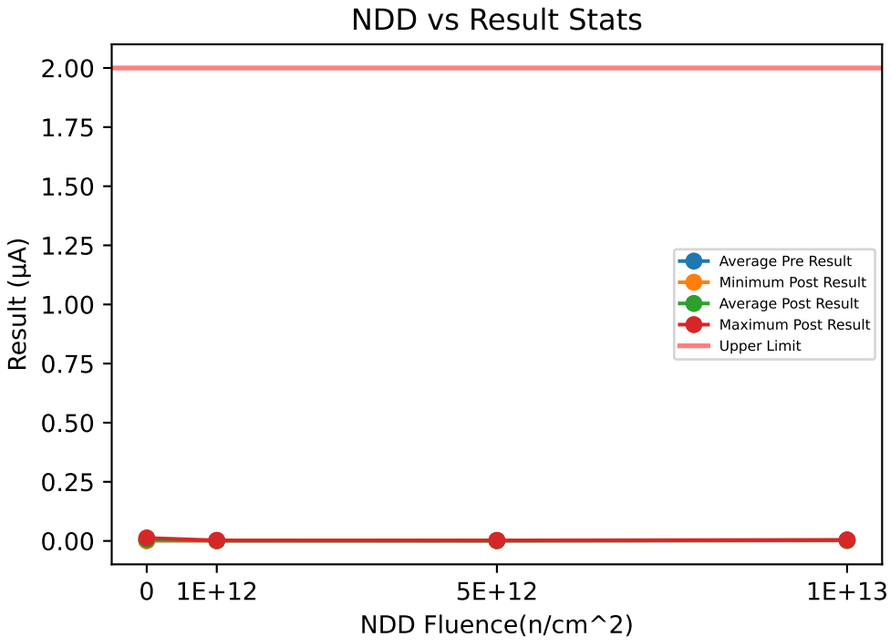
Test Results (Upper Limit = 2300.0 (µs))

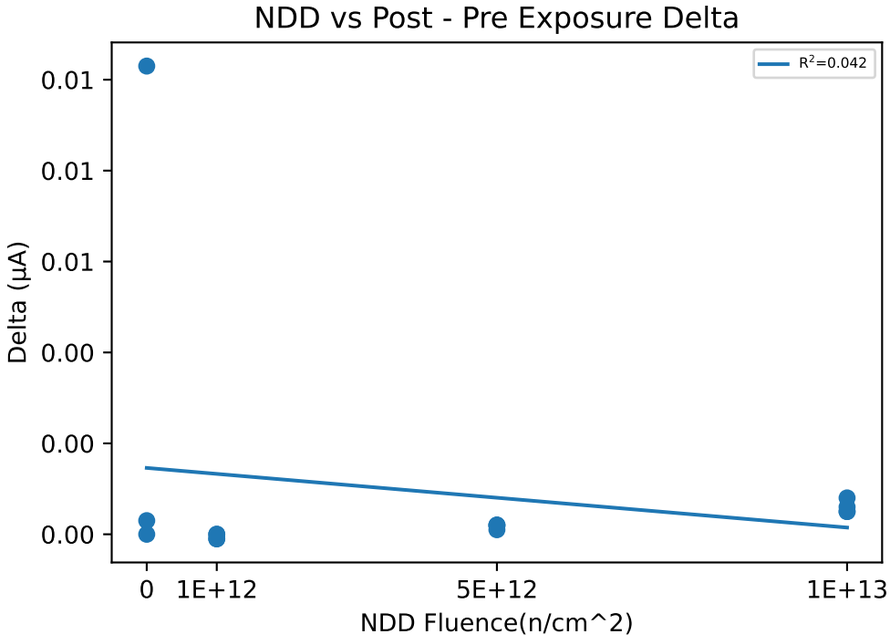
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	1.31e+04	1.42e+04	1071.1
2	0	CU2	1.36e+04	1.38e+04	204.36
3	0	CU3	1.38e+04	1.37e+04	-71.284
10	1e+12	1E12n/cm2	1.43e+04	1.43e+04	-70.233
11	1e+12	1E12n/cm2	1.29e+04	1.29e+04	-23.66
12	1e+12	1E12n/cm2	1.34e+04	1.34e+04	-17.254
13	1e+12	1E12n/cm2	1.39e+04	1.39e+04	-20.39
20	5e+12	5E12n/cm2	1.3e+04	1.31e+04	30.46
21	5e+12	5E12n/cm2	1.39e+04	1.4e+04	29.513
22	5e+12	5E12n/cm2	1.38e+04	1.37e+04	-44.387
23	5e+12	5E12n/cm2	1.43e+04	1.43e+04	11.701
30	1e+13	1E13n/cm2	1.33e+04	1.33e+04	-33.241
31	1e+13	1E13n/cm2	1.42e+04	1.42e+04	-54.042
32	1e+13	1E13n/cm2	1.39e+04	1.39e+04	-1.9106
33	1e+13	1E13n/cm2	1.38e+04	1.37e+04	-91.022

Test Statistics (µs)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	1.31e+04	1.35e+04	1.38e+04	362.05	1.37e+04	1.39e+04	1.42e+04	238.21	-71.284	401.41	1071.1	596.15
1e+12	1.29e+04	1.36e+04	1.43e+04	634.79	1.29e+04	1.36e+04	1.43e+04	617.73	-70.233	-32.884	-17.254	25.036
5e+12	1.3e+04	1.37e+04	1.43e+04	523.1	1.31e+04	1.38e+04	1.43e+04	516.57	-44.387	6.8217	30.46	35.213
1e+13	1.33e+04	1.38e+04	1.42e+04	385.36	1.33e+04	1.38e+04	1.42e+04	383.15	-91.022	-45.054	-1.9106	37.393

Device Test: 70.1 PWRGD_OUTPUT_HIGH_LEAK(LEAK|/PG/CURRENT/0N6V//3/@PWRGD_OUTPUT_HIGH_LEAK)





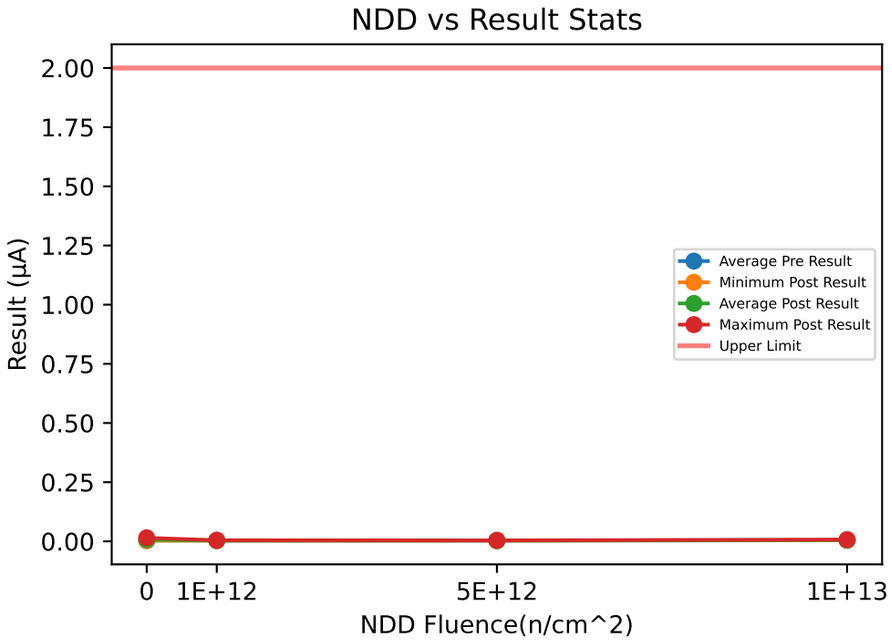
Test Results (Upper Limit = 2.0 (µA))

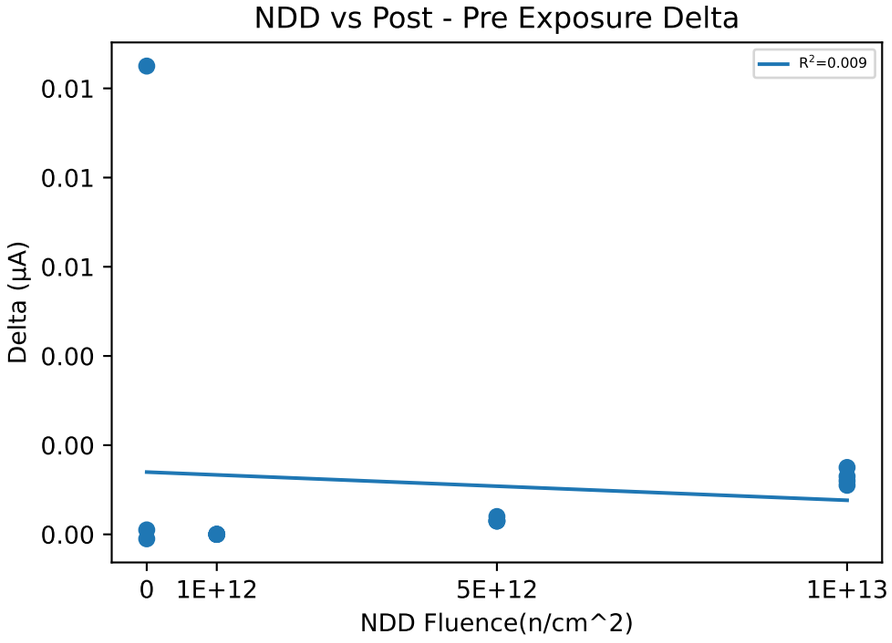
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.001	0.001	0
2	0	CU2	0.0023	0.0126	0.0103
3	0	CU3	0.0016	0.0019	0.0003
10	1e+12	1E12n/cm2	0.0011	0.0011	0
11	1e+12	1E12n/cm2	0.0009	0.0009	0
12	1e+12	1E12n/cm2	0.001	0.0009	-0.0001
13	1e+12	1E12n/cm2	0.0025	0.0024	-0.0001
20	5e+12	5E12n/cm2	0.0009	0.0011	0.0002
21	5e+12	5E12n/cm2	0.0009	0.0011	0.0002
22	5e+12	5E12n/cm2	0.0011	0.0012	0.0001
23	5e+12	5E12n/cm2	0.002	0.0022	0.0002
30	1e+13	1E13n/cm2	0.0016	0.0021	0.0005
31	1e+13	1E13n/cm2	0.0037	0.0045	0.0008
32	1e+13	1E13n/cm2	0.0018	0.0023	0.0005
33	1e+13	1E13n/cm2	0.0016	0.0022	0.0006

Test Statistics (µA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.001	0.0016333	0.0023	0.00065064	0.001	0.0051667	0.0126	0.0064532	0	0.0035333	0.0103	0.005862
1e+12	0.0009	0.001375	0.0025	0.00075443	0.0009	0.001325	0.0024	0.00072284	-0.0001	-5e-05	0	5.7735e-05
5e+12	0.0009	0.001225	0.002	0.0005252	0.0011	0.0014	0.0022	0.00053541	0.0001	0.000175	0.0002	5e-05
1e+13	0.0016	0.002175	0.0037	0.001021	0.0021	0.002775	0.0045	0.0011529	0.0005	0.0006	0.0008	0.00014142

Device Test: 70.2 PWRGD_OUTPUT_HIGH_LEAK(LEAK|/PG/CURRENT/6N0V//6.3/@PWRGD_OUTPUT_HIGH_LEAK)





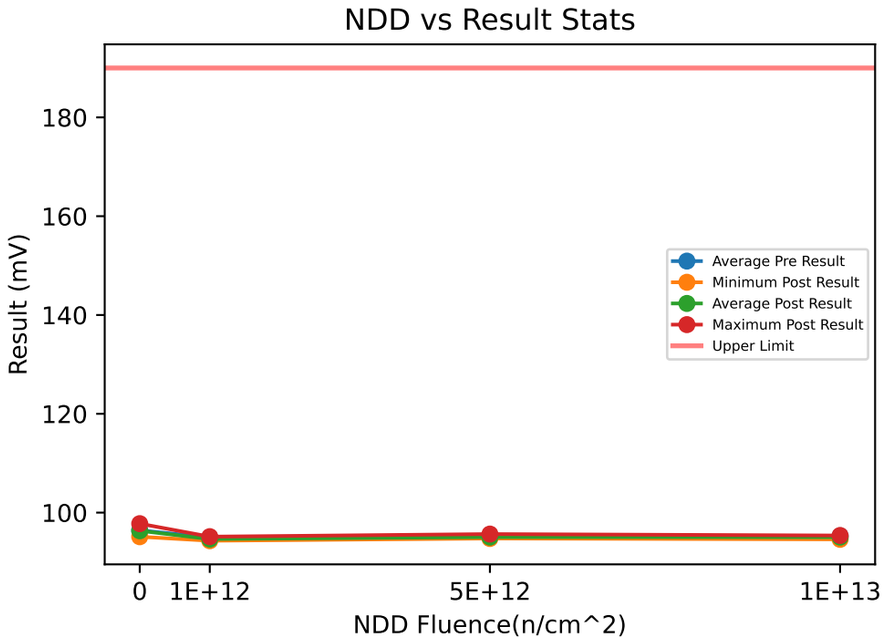
Test Results (Upper Limit = 2.0 (µA))

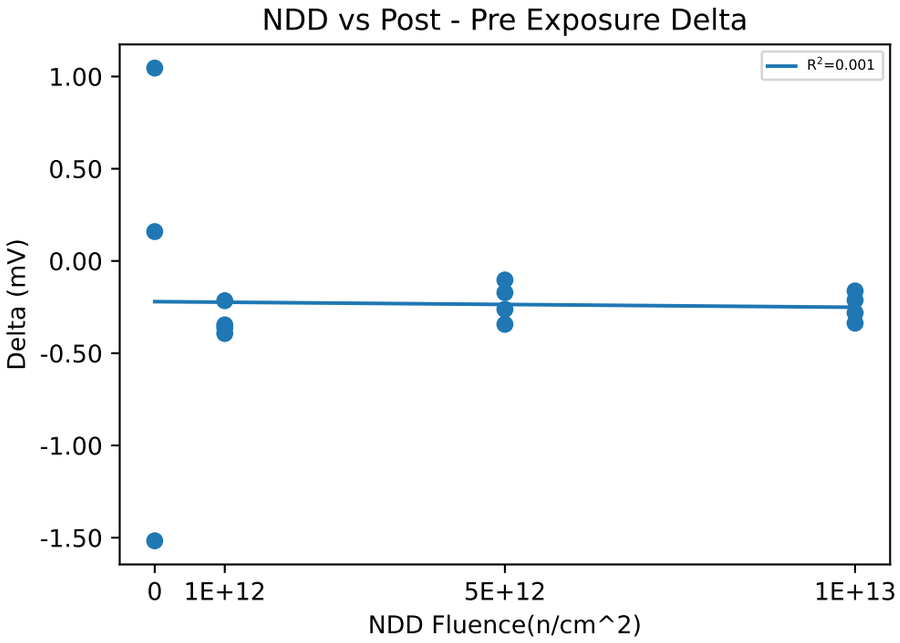
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.0026	0.0027	0.0001
2	0	CU2	0.0044	0.0149	0.0105
3	0	CU3	0.004	0.0039	-0.0001
10	1e+12	1E12n/cm2	0.0031	0.0031	0
11	1e+12	1E12n/cm2	0.0029	0.0029	0
12	1e+12	1E12n/cm2	0.0028	0.0028	0
13	1e+12	1E12n/cm2	0.0049	0.0049	0
20	5e+12	5E12n/cm2	0.0027	0.003	0.0003
21	5e+12	5E12n/cm2	0.0026	0.0029	0.0003
22	5e+12	5E12n/cm2	0.0031	0.0034	0.0003
23	5e+12	5E12n/cm2	0.0039	0.0043	0.0004
30	1e+13	1E13n/cm2	0.0041	0.0054	0.0013
31	1e+13	1E13n/cm2	0.0058	0.0073	0.0015
32	1e+13	1E13n/cm2	0.0041	0.0053	0.0012
33	1e+13	1E13n/cm2	0.0039	0.005	0.0011

Test Statistics (µA)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.0026	0.0036667	0.0044	0.00094516	0.0027	0.0071667	0.0149	0.0067241	-0.0001	0.0035	0.0105	0.006063
1e+12	0.0028	0.003425	0.0049	0.00099121	0.0028	0.003425	0.0049	0.00099121	0	0	0	0
5e+12	0.0026	0.003075	0.0039	0.0005909	0.0029	0.0034	0.0043	0.0006377	0.0003	0.000325	0.0004	5e-05
1e+13	0.0039	0.004475	0.0058	0.00088835	0.005	0.00575	0.0073	0.0010472	0.0011	0.001275	0.0015	0.00017078

Device Test: 70.3 V_PG_OL(POWER_GOOD|//OUTPUT_LOW/0N6V//3/@V_PG_OL)





Test Results (Upper Limit = 190.0 (mV))

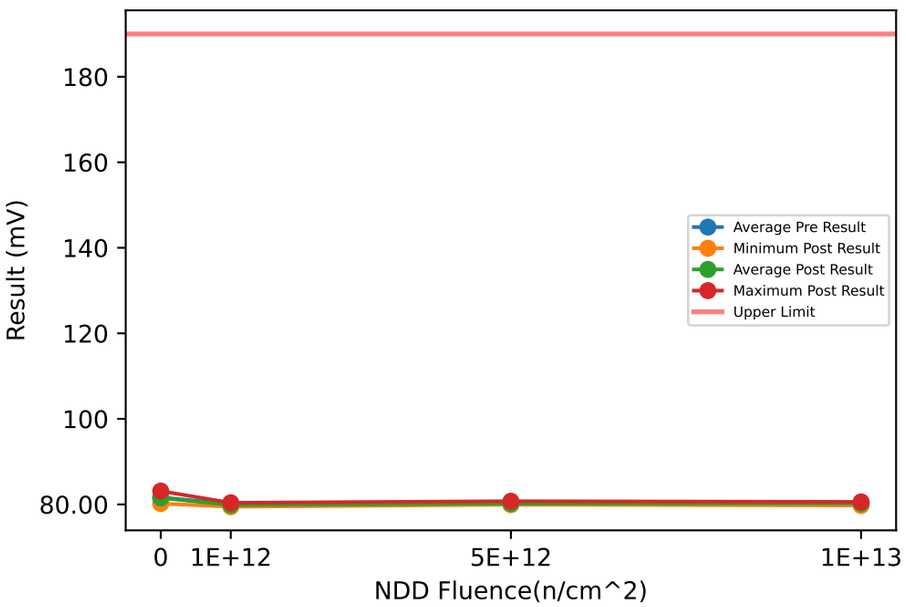
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	94.96	95.119	0.1592
2	0	CU2	96.718	97.763	1.0457
3	0	CU3	97.598	96.081	-1.5171
10	1e+12	1E12n/cm2	94.657	94.311	-0.3465
11	1e+12	1E12n/cm2	94.938	94.545	-0.3933
12	1e+12	1E12n/cm2	94.963	94.601	-0.3621
13	1e+12	1E12n/cm2	95.35	95.135	-0.2154
20	5e+12	5E12n/cm2	95.759	95.656	-0.103
21	5e+12	5E12n/cm2	95.038	94.867	-0.1717
22	5e+12	5E12n/cm2	95.107	94.763	-0.3434
23	5e+12	5E12n/cm2	95.154	94.891	-0.2622
30	1e+13	1E13n/cm2	95.204	95.041	-0.1624
31	1e+13	1E13n/cm2	94.87	94.589	-0.281
32	1e+13	1E13n/cm2	95.36	95.147	-0.2123
33	1e+13	1E13n/cm2	95.703	95.366	-0.3371

Test Statistics (mV)

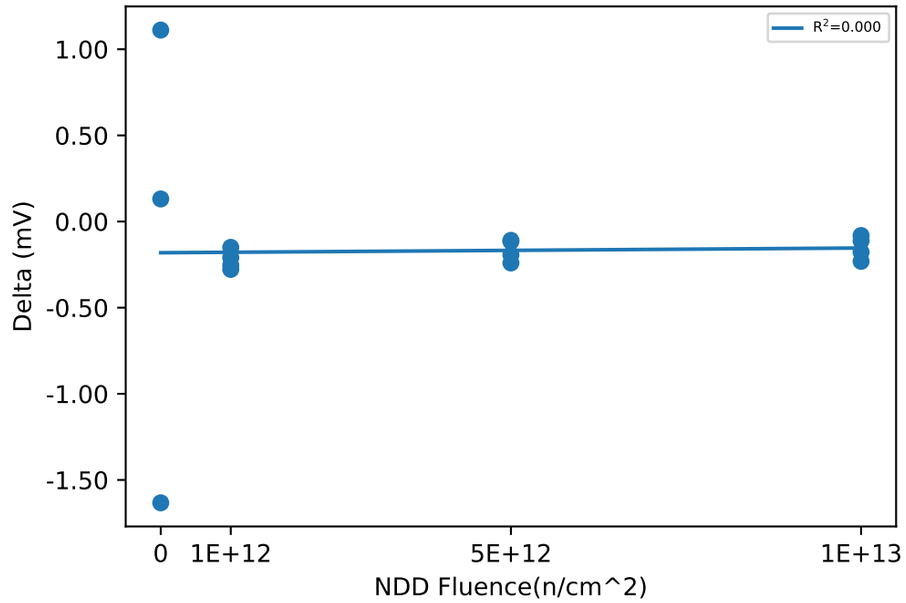
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	94.96	96.425	97.598	1.343	95.119	96.321	97.763	1.3383	-1.5171	-0.10407	1.0457	1.3015
1e+12	94.657	94.977	95.35	0.28476	94.311	94.648	95.135	0.34814	-0.3933	-0.32932	-0.2154	0.078403
5e+12	95.038	95.265	95.759	0.33324	94.763	95.044	95.656	0.41164	-0.3434	-0.22008	-0.103	0.10493
1e+13	94.87	95.284	95.703	0.34616	94.589	95.036	95.366	0.32733	-0.3371	-0.2482	-0.1624	0.076658

Device Test: 70.4 V_PG_OL(POWER_GOOD|//OUTPUT_LOW/6N0V//6.3/@V_PG_OL)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



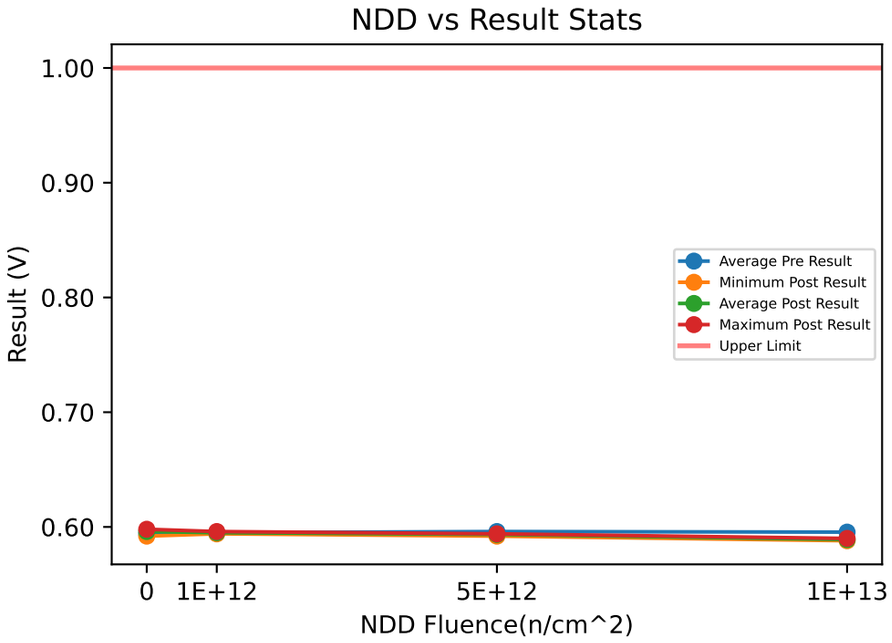
Test Results (Upper Limit = 190.0 (mV))

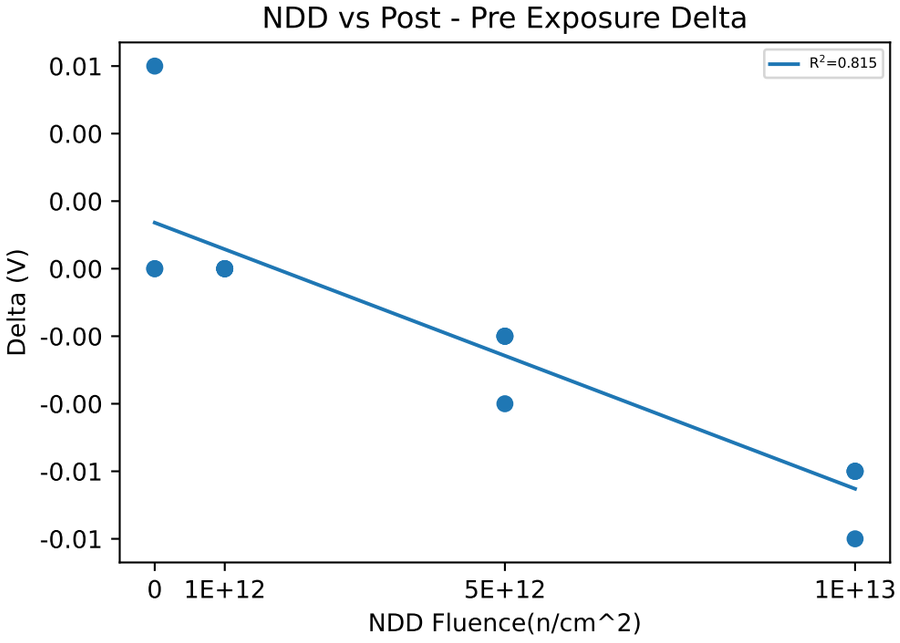
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	80.07	80.201	0.1311
2	0	CU2	82.008	83.12	1.1113
3	0	CU3	82.848	81.216	-1.6327
10	1e+12	1E12n/cm2	79.711	79.458	-0.2529
11	1e+12	1E12n/cm2	80.064	79.786	-0.2778
12	1e+12	1E12n/cm2	79.998	79.789	-0.2092
13	1e+12	1E12n/cm2	80.529	80.379	-0.1499
20	5e+12	5E12n/cm2	80.863	80.747	-0.1155
21	5e+12	5E12n/cm2	80.148	80.039	-0.1092
22	5e+12	5E12n/cm2	80.176	79.936	-0.2404
23	5e+12	5E12n/cm2	80.235	80.042	-0.1935
30	1e+13	1E13n/cm2	80.373	80.291	-0.0812
31	1e+13	1E13n/cm2	79.929	79.751	-0.1779
32	1e+13	1E13n/cm2	80.445	80.332	-0.1124
33	1e+13	1E13n/cm2	80.819	80.588	-0.231

Test Statistics (mV)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	80.07	81.642	82.848	1.4249	80.201	81.512	83.12	1.4818	-1.6327	-0.1301	1.1113	1.3905
1e+12	79.711	80.075	80.529	0.33889	79.458	79.853	80.379	0.3835	-0.2778	-0.22245	-0.1499	0.056065
5e+12	80.148	80.356	80.863	0.34016	79.936	80.191	80.747	0.37423	-0.2404	-0.16465	-0.1092	0.063406
1e+13	79.929	80.391	80.819	0.36494	79.751	80.241	80.588	0.35163	-0.231	-0.15063	-0.0812	0.067045

vice Test: 71.1 MIN_VIN_FOR_PWRGD_OUTPUT(POWER_GOOD|//MIN_VIN_PG/0N6V///@MIN_VIN_FOR_PWRGD_OUTP





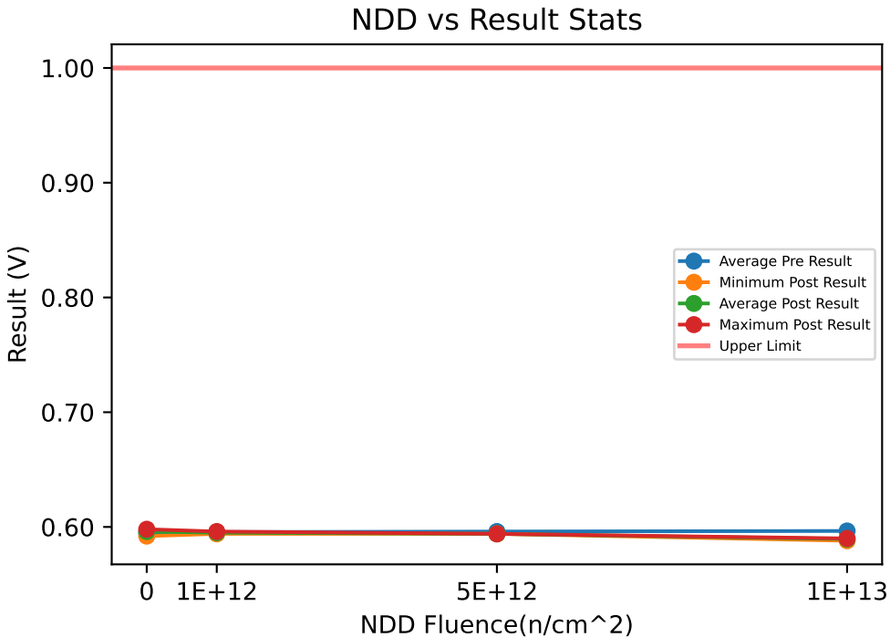
Test Results (Upper Limit = 1.0 (V))

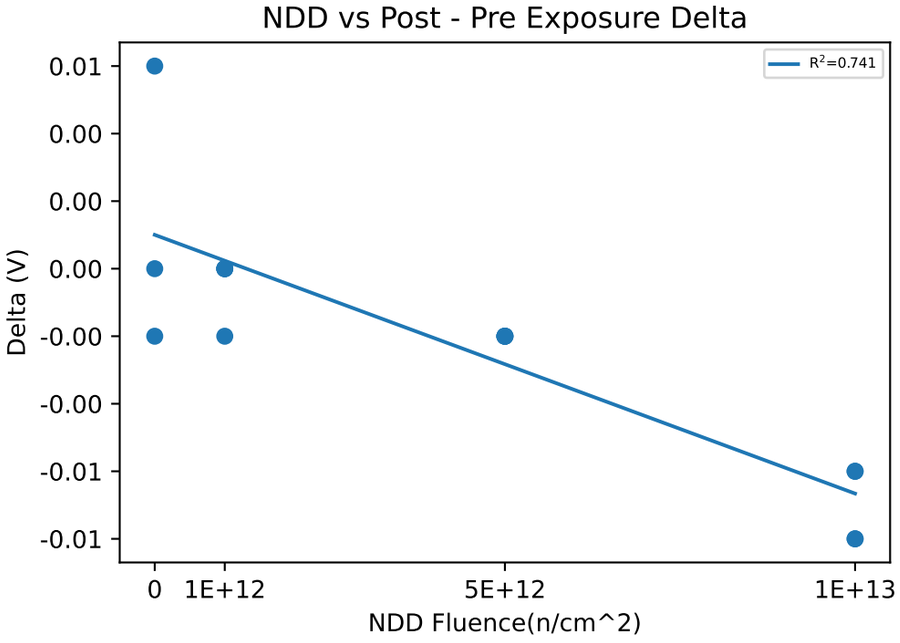
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.598	0.598	0
2	0	CU2	0.592	0.592	0
3	0	CU3	0.592	0.598	0.006
10	1e+12	1E12n/cm2	0.596	0.596	0
11	1e+12	1E12n/cm2	0.594	0.594	0
12	1e+12	1E12n/cm2	0.596	0.596	0
13	1e+12	1E12n/cm2	0.594	0.594	0
20	5e+12	5E12n/cm2	0.596	0.592	-0.004
21	5e+12	5E12n/cm2	0.596	0.594	-0.002
22	5e+12	5E12n/cm2	0.596	0.594	-0.002
23	5e+12	5E12n/cm2	0.596	0.594	-0.002
30	1e+13	1E13n/cm2	0.596	0.588	-0.008
31	1e+13	1E13n/cm2	0.596	0.59	-0.006
32	1e+13	1E13n/cm2	0.596	0.59	-0.006
33	1e+13	1E13n/cm2	0.594	0.588	-0.006

Test Statistics (V)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.592	0.594	0.598	0.0034641	0.592	0.596	0.598	0.0034641	0	0.002	0.006	0.0034641
1e+12	0.594	0.595	0.596	0.0011547	0.594	0.595	0.596	0.0011547	0	0	0	0
5e+12	0.596	0.596	0.596	0	0.592	0.5935	0.594	0.001	-0.004	-0.0025	-0.002	0.001
1e+13	0.594	0.5955	0.596	0.001	0.588	0.589	0.59	0.0011547	-0.008	-0.0065	-0.006	0.001

vice Test: 71.2 MIN_VIN_FOR_PWRGD_OUTPUT(POWER_GOOD|//MIN_VIN_PG/6N0V///@MIN_VIN_FOR_PWRGD_OUTP





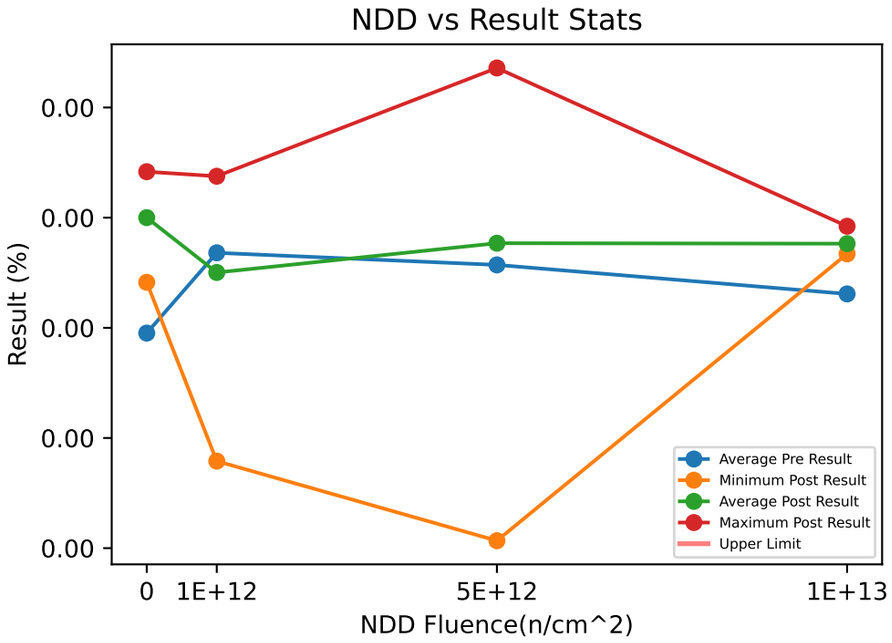
Test Results (Upper Limit = 1.0 (V))

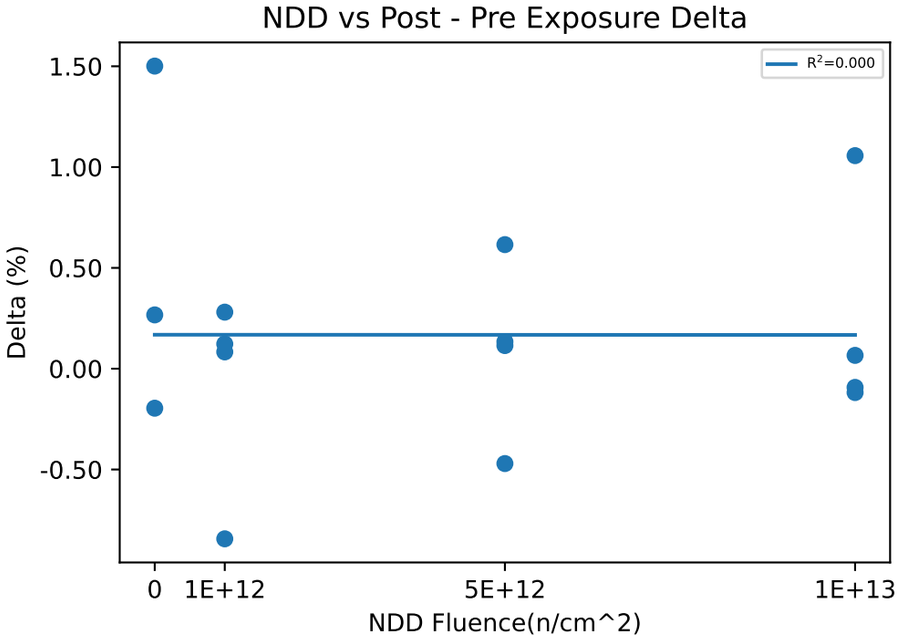
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	0.598	0.598	0
2	0	CU2	0.594	0.592	-0.002
3	0	CU3	0.592	0.598	0.006
10	1e+12	1E12n/cm2	0.596	0.596	0
11	1e+12	1E12n/cm2	0.594	0.594	0
12	1e+12	1E12n/cm2	0.596	0.596	0
13	1e+12	1E12n/cm2	0.596	0.594	-0.002
20	5e+12	5E12n/cm2	0.596	0.594	-0.002
21	5e+12	5E12n/cm2	0.596	0.594	-0.002
22	5e+12	5E12n/cm2	0.596	0.594	-0.002
23	5e+12	5E12n/cm2	0.596	0.594	-0.002
30	1e+13	1E13n/cm2	0.596	0.59	-0.006
31	1e+13	1E13n/cm2	0.598	0.59	-0.008
32	1e+13	1E13n/cm2	0.598	0.59	-0.008
33	1e+13	1E13n/cm2	0.594	0.588	-0.006

Test Statistics (V)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.592	0.59467	0.598	0.0030551	0.592	0.596	0.598	0.0034641	-0.002	0.0013333	0.006	0.0041633
1e+12	0.594	0.5955	0.596	0.001	0.594	0.595	0.596	0.0011547	-0.002	-0.0005	0	0.001
5e+12	0.596	0.596	0.596	0	0.594	0.594	0.594	0	-0.002	-0.002	-0.002	0
1e+13	0.594	0.5965	0.598	0.0019149	0.588	0.5895	0.59	0.001	-0.008	-0.007	-0.006	0.0011547

Device Test: 71.3 V_PG_RISE(POWER_GOOD|//RISE_THRESHOLD/0N6V///@V_PG_RISE)





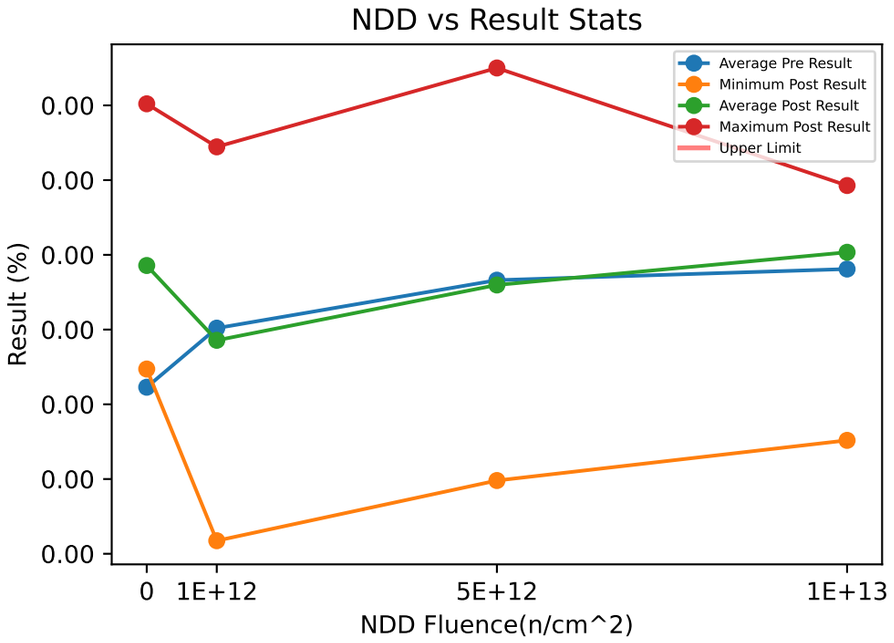
Test Results (No Limits Specified (%))

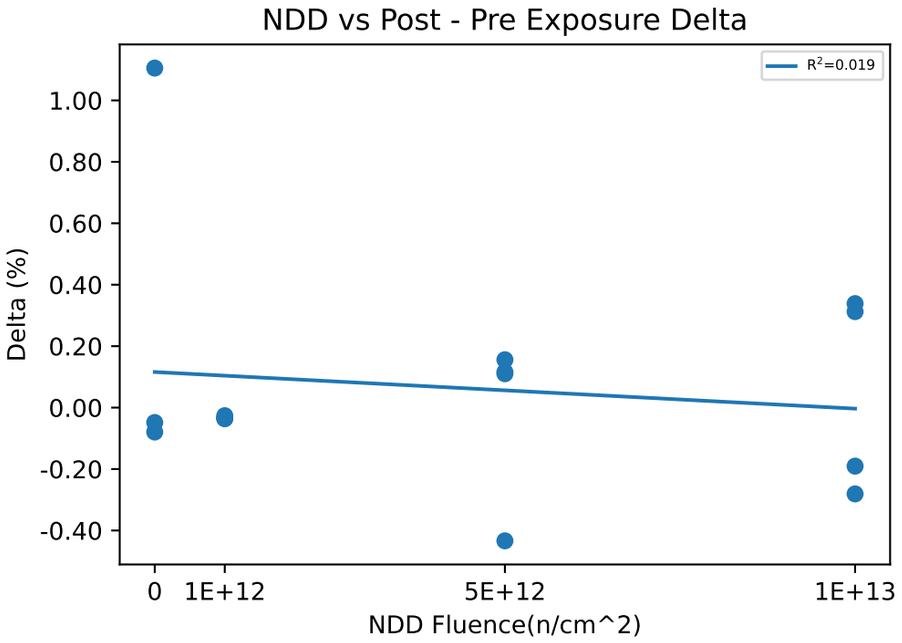
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	9.3084e-11	9.4585e-11	1.501
2	0	CU2	9.4442e-11	9.4709e-11	0.2669
3	0	CU3	9.4403e-11	9.4207e-11	-0.1959
10	1e+12	1E12n/cm2	9.5257e-11	9.4413e-11	-0.8438
11	1e+12	1E12n/cm2	9.3115e-11	9.3395e-11	0.2805
12	1e+12	1E12n/cm2	9.4425e-11	9.4508e-11	0.0833
13	1e+12	1E12n/cm2	9.4565e-11	9.4688e-11	0.1227
20	5e+12	5E12n/cm2	9.3504e-11	9.3034e-11	-0.4705
21	5e+12	5E12n/cm2	9.4518e-11	9.4652e-11	0.1341
22	5e+12	5E12n/cm2	9.4556e-11	9.4671e-11	0.1148
23	5e+12	5E12n/cm2	9.4564e-11	9.5179e-11	0.6154
30	1e+13	1E13n/cm2	9.3279e-11	9.4336e-11	1.0568
31	1e+13	1E13n/cm2	9.4483e-11	9.439e-11	-0.0927
32	1e+13	1E13n/cm2	9.4579e-11	9.4461e-11	-0.1183
33	1e+13	1E13n/cm2	9.4275e-11	9.4341e-11	0.0661

Test Statistics (%)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	9.3084e-11	9.3976e-11	9.4442e-11	7.728e-13	9.4207e-11	9.45e-11	9.4709e-11	2.6156e-13	-0.1959	0.524	1.501	0.87718
1e+12	9.3115e-11	9.434e-11	9.5257e-11	8.9453e-13	9.3395e-11	9.4251e-11	9.4688e-11	5.8202e-13	-0.8438	-0.089325	0.2805	0.51015
5e+12	9.3504e-11	9.4286e-11	9.4564e-11	5.2132e-13	9.3034e-11	9.4384e-11	9.5179e-11	9.3278e-13	-0.4705	0.09845	0.6154	0.4444
1e+13	9.3279e-11	9.4154e-11	9.4579e-11	5.9704e-13	9.4336e-11	9.4382e-11	9.4461e-11	5.8085e-14	-0.1183	0.22798	1.0568	0.55854

Device Test: 71.4 V_PG_FALL(POWER_GOOD|//FALL_THRESHOLD/0N6V///@V_PG_FALL)





Test Results (No Limits Specified (%))

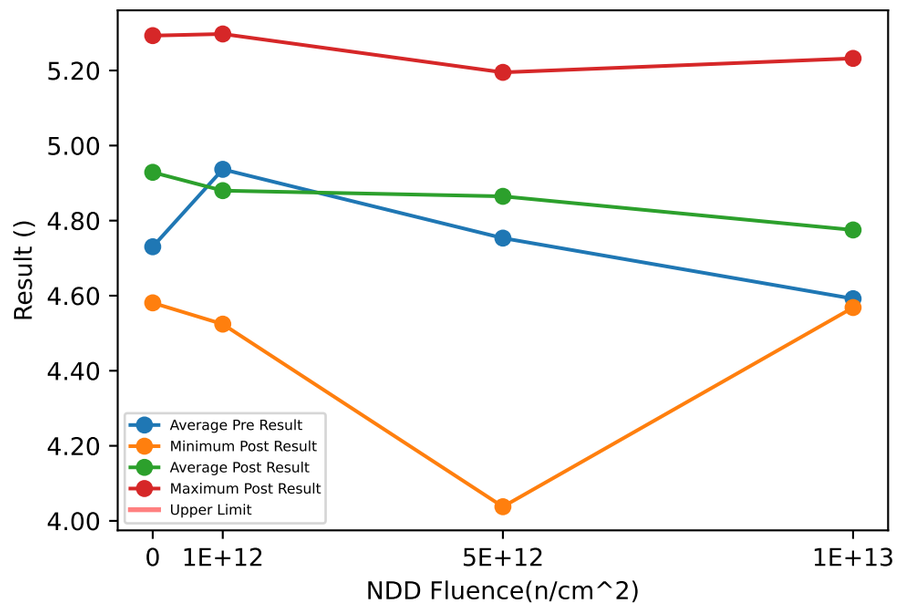
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	8.8899e-11	9.0004e-11	1.1052
2	0	CU2	8.9464e-11	8.9416e-11	-0.0485
3	0	CU3	8.9374e-11	8.9294e-11	-0.0794
10	1e+12	1E12n/cm2	8.9924e-11	8.9889e-11	-0.035
11	1e+12	1E12n/cm2	8.8871e-11	8.8835e-11	-0.0362
12	1e+12	1E12n/cm2	8.9397e-11	8.9371e-11	-0.0263
13	1e+12	1E12n/cm2	8.9423e-11	8.9391e-11	-0.0327
20	5e+12	5E12n/cm2	8.884e-11	8.8996e-11	0.1558
21	5e+12	5E12n/cm2	8.9939e-11	8.9505e-11	-0.4336
22	5e+12	5E12n/cm2	8.9366e-11	8.9476e-11	0.1103
23	5e+12	5E12n/cm2	8.9984e-11	9.01e-11	0.116
30	1e+13	1E13n/cm2	8.9384e-11	8.9103e-11	-0.2809
31	1e+13	1E13n/cm2	8.9956e-11	8.9766e-11	-0.1905
32	1e+13	1E13n/cm2	8.9447e-11	8.9785e-11	0.3385
33	1e+13	1E13n/cm2	8.946e-11	8.9773e-11	0.3124

Test Statistics (%)

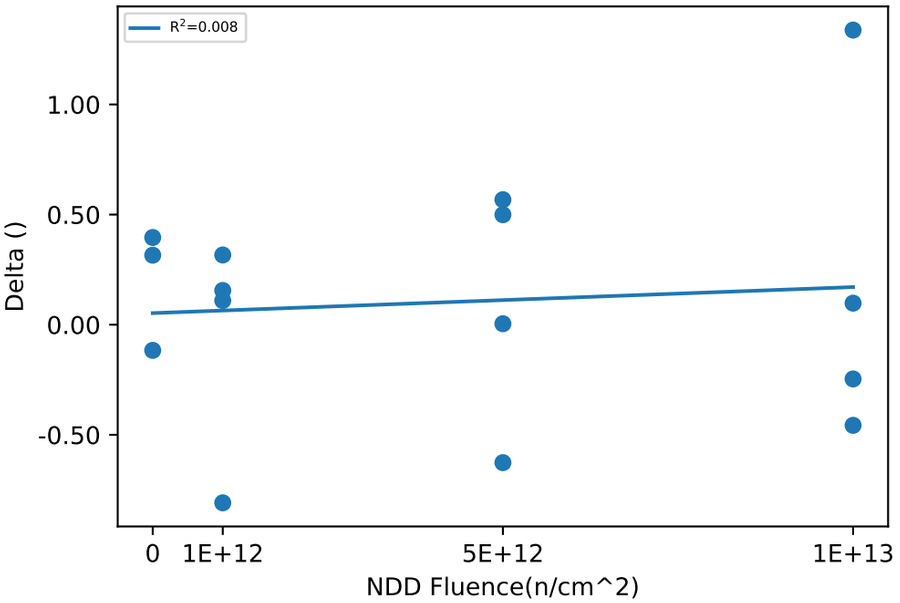
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	8.8899e-11	8.9246e-11	8.9464e-11	3.0364e-13	8.9294e-11	8.9571e-11	9.0004e-11	3.7964e-13	-0.0794	0.32577	1.1052	0.67519
1e+12	8.8871e-11	8.9404e-11	8.9924e-11	4.3004e-13	8.8835e-11	8.9371e-11	8.9889e-11	4.3055e-13	-0.0362	-0.03255	-0.0263	0.0044125
5e+12	8.884e-11	8.9532e-11	8.9984e-11	5.4043e-13	8.8996e-11	8.9519e-11	9.01e-11	4.5212e-13	-0.4336	-0.012875	0.1558	0.28121
1e+13	8.9384e-11	8.9562e-11	8.9956e-11	2.6489e-13	8.9103e-11	8.9607e-11	8.9785e-11	3.3567e-13	-0.2809	0.044875	0.3385	0.32625

Device Test: 71.5 V_PG_HYS(POWER_GOOD|//HYSTERESIS/0N6V///@V_PG_HYS)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



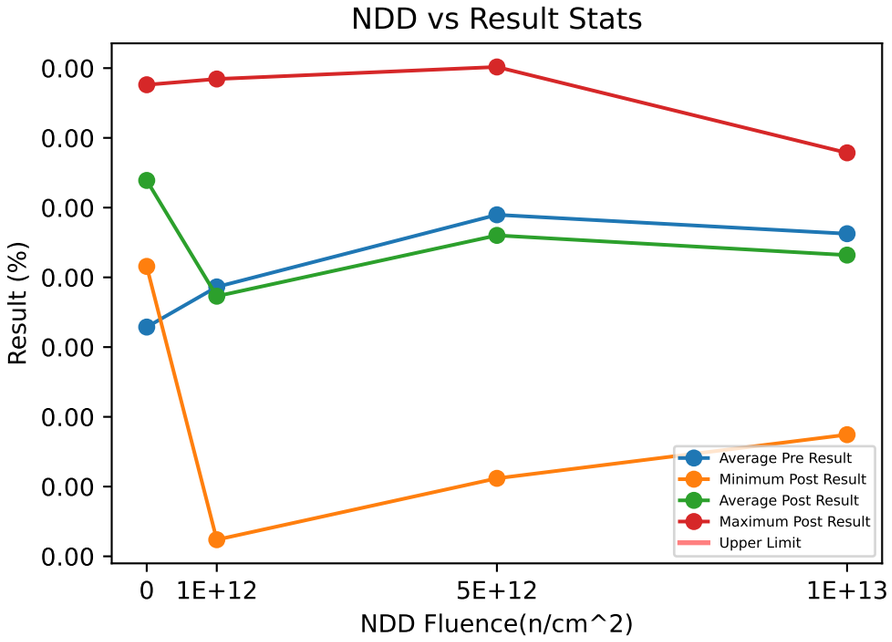
Test Results (No Limits Specified ())

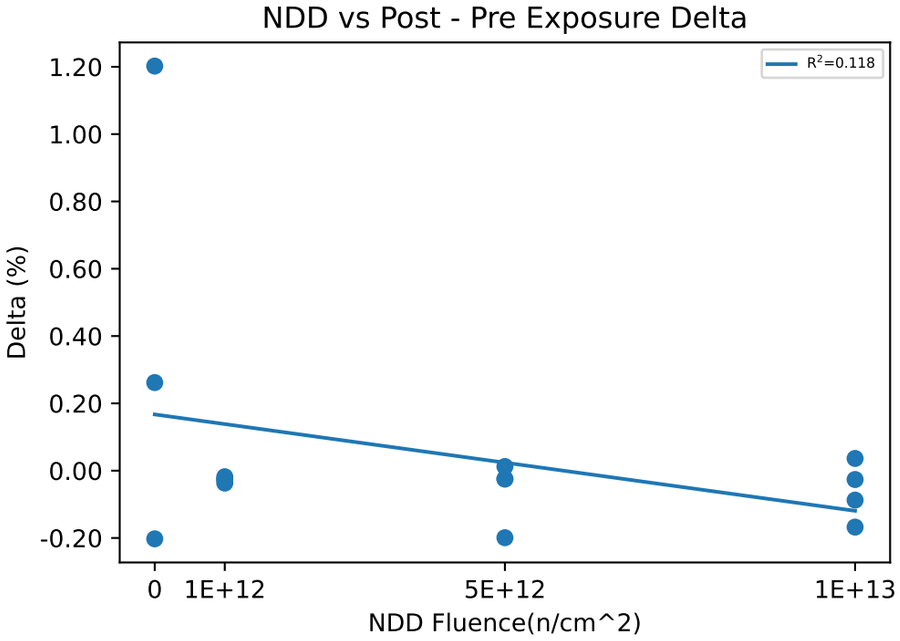
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	4.185	4.5809	0.3959
2	0	CU2	4.9773	5.2929	0.3156
3	0	CU3	5.0287	4.9122	-0.1165
10	1e+12	1E12n/cm2	5.3329	4.5242	-0.8087
11	1e+12	1E12n/cm2	4.2435	4.5601	0.3166
12	1e+12	1E12n/cm2	5.0283	5.1379	0.1096
13	1e+12	1E12n/cm2	5.1419	5.2973	0.1554
20	5e+12	5E12n/cm2	4.664	4.0377	-0.6263
21	5e+12	5E12n/cm2	4.5791	5.1467	0.5676
22	5e+12	5E12n/cm2	5.1906	5.195	0.0044
23	5e+12	5E12n/cm2	4.5799	5.0793	0.4994
30	1e+13	1E13n/cm2	3.8945	5.2322	1.3377
31	1e+13	1E13n/cm2	4.5265	4.6243	0.0978
32	1e+13	1E13n/cm2	5.1323	4.6755	-0.4568
33	1e+13	1E13n/cm2	4.8147	4.5684	-0.2463

Test Statistics ()

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.185	4.7303	5.0287	0.47297	4.5809	4.9287	5.2929	0.35629	-0.1165	0.19833	0.3959	0.27559
1e+12	4.2435	4.9367	5.3329	0.47889	4.5242	4.8799	5.2973	0.39564	-0.8087	-0.056775	0.3166	0.50908
5e+12	4.5791	4.7534	5.1906	0.29418	4.0377	4.8647	5.195	0.55335	-0.6263	0.11128	0.5676	0.55206
1e+13	3.8945	4.592	5.1323	0.52672	4.5684	4.7751	5.2322	0.30786	-0.4568	0.1831	1.3377	0.80296

Device Test: 71.6 V_PG_RISE(POWER_GOOD|//RISE_THRESHOLD/6N0V///@V_PG_RISE)





Test Results (No Limits Specified (%))

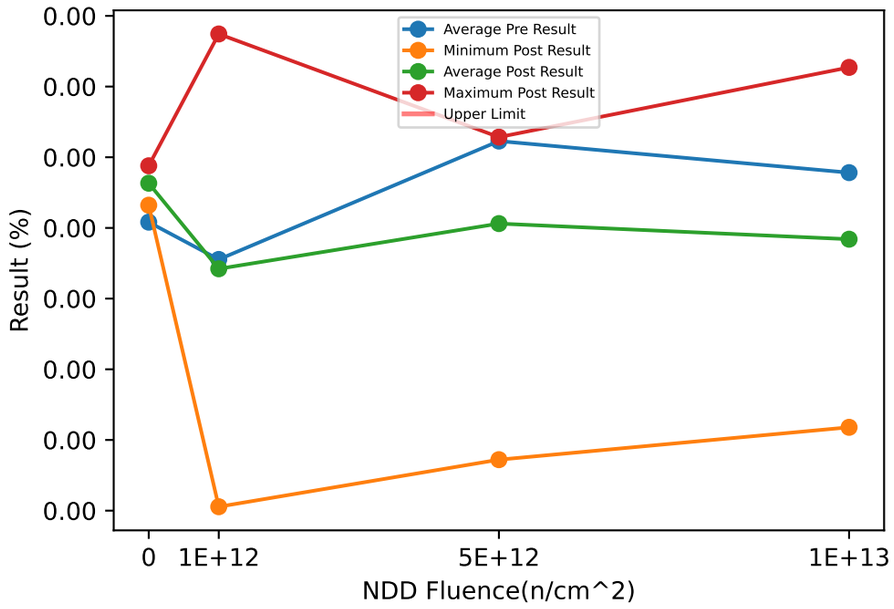
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	9.395e-11	9.5152e-11	1.2022
2	0	CU2	9.4588e-11	9.485e-11	0.2618
3	0	CU3	9.4834e-11	9.4631e-11	-0.2025
10	1e+12	1E12n/cm2	9.5194e-11	9.5169e-11	-0.0254
11	1e+12	1E12n/cm2	9.3885e-11	9.3848e-11	-0.0369
12	1e+12	1E12n/cm2	9.4359e-11	9.4341e-11	-0.018
13	1e+12	1E12n/cm2	9.4852e-11	9.4826e-11	-0.0263
20	5e+12	5E12n/cm2	9.4011e-11	9.4024e-11	0.0123
21	5e+12	5E12n/cm2	9.504e-11	9.5015e-11	-0.0245
22	5e+12	5E12n/cm2	9.4838e-11	9.4639e-11	-0.1992
23	5e+12	5E12n/cm2	9.5228e-11	9.5203e-11	-0.0248
30	1e+13	1E13n/cm2	9.4175e-11	9.4149e-11	-0.0263
31	1e+13	1E13n/cm2	9.5045e-11	9.4957e-11	-0.0875
32	1e+13	1E13n/cm2	9.4758e-11	9.4794e-11	0.0363
33	1e+13	1E13n/cm2	9.4923e-11	9.4755e-11	-0.1677

Test Statistics (%)

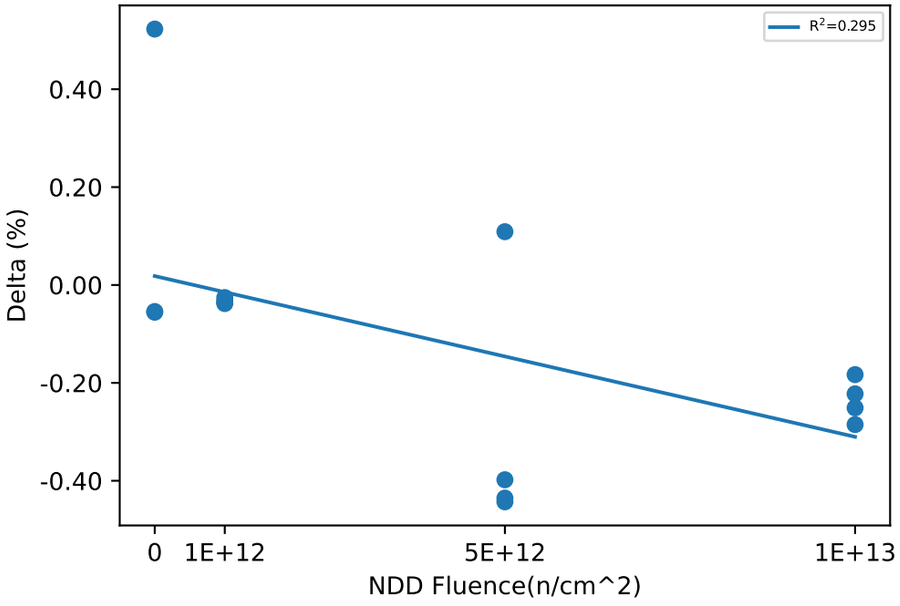
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	9.395e-11	9.4457e-11	9.4834e-11	4.562e-13	9.4631e-11	9.4878e-11	9.5152e-11	2.6156e-13	-0.2025	0.4205	1.2022	0.71567
1e+12	9.3885e-11	9.4573e-11	9.5194e-11	5.7254e-13	9.3848e-11	9.4546e-11	9.5169e-11	5.7612e-13	-0.0369	-0.02665	-0.018	0.0077797
5e+12	9.4011e-11	9.4779e-11	9.5228e-11	5.3622e-13	9.4024e-11	9.472e-11	9.5203e-11	5.2035e-13	-0.1992	-0.05905	0.0123	0.095043
1e+13	9.4175e-11	9.4725e-11	9.5045e-11	3.8508e-13	9.4149e-11	9.4664e-11	9.4957e-11	3.5432e-13	-0.1677	-0.0613	0.0363	0.087098

Device Test: 71.7 V_PG_FALL(POWER_GOOD|//FALL_THRESHOLD/6N0V///@V_PG_FALL)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (No Limits Specified (%))

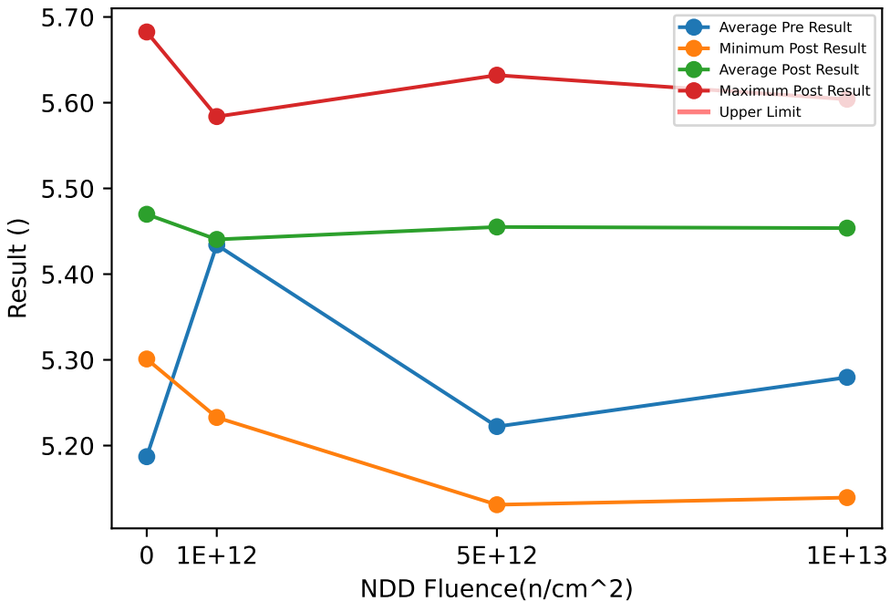
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	8.8947e-11	8.947e-11	0.5229
2	0	CU2	8.9478e-11	8.9424e-11	-0.0542
3	0	CU3	8.9386e-11	8.933e-11	-0.0556
10	1e+12	1E12n/cm2	8.9969e-11	8.9936e-11	-0.033
11	1e+12	1E12n/cm2	8.8302e-11	8.8264e-11	-0.0379
12	1e+12	1E12n/cm2	8.8856e-11	8.883e-11	-0.0257
13	1e+12	1E12n/cm2	8.9427e-11	8.9392e-11	-0.0354
20	5e+12	5E12n/cm2	8.8828e-11	8.843e-11	-0.3979
21	5e+12	5E12n/cm2	8.9987e-11	8.9552e-11	-0.4354
22	5e+12	5E12n/cm2	8.9399e-11	8.9508e-11	0.1089
23	5e+12	5E12n/cm2	9.0014e-11	8.9571e-11	-0.443
30	1e+13	1E13n/cm2	8.883e-11	8.8545e-11	-0.2852
31	1e+13	1E13n/cm2	9.0001e-11	8.9818e-11	-0.1831
32	1e+13	1E13n/cm2	8.9483e-11	8.9261e-11	-0.2224
33	1e+13	1E13n/cm2	8.9468e-11	8.9217e-11	-0.251

Test Statistics (%)

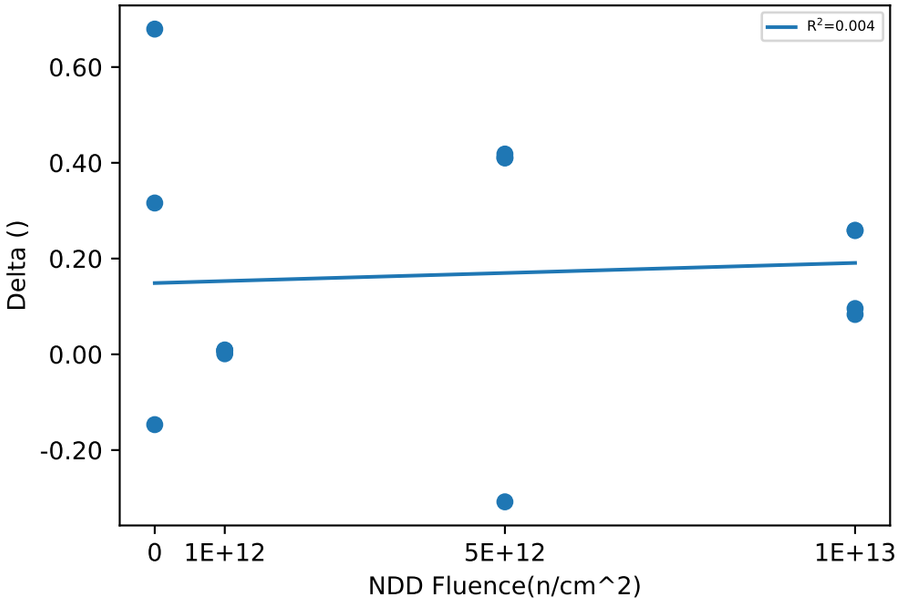
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	8.8947e-11	8.927e-11	8.9478e-11	2.8393e-13	8.933e-11	8.9408e-11	8.947e-11	7.1064e-14	-0.0556	0.1377	0.5229	0.33359
1e+12	8.8302e-11	8.9138e-11	8.9969e-11	7.1944e-13	8.8264e-11	8.9105e-11	8.9936e-11	7.2008e-13	-0.0379	-0.033	-0.0257	0.0052618
5e+12	8.8828e-11	8.9557e-11	9.0014e-11	5.6275e-13	8.843e-11	8.9265e-11	8.9571e-11	5.5731e-13	-0.443	-0.29185	0.1089	0.26789
1e+13	8.883e-11	8.9446e-11	9.0001e-11	4.7932e-13	8.8545e-11	8.921e-11	8.9818e-11	5.2107e-13	-0.2852	-0.23542	-0.1831	0.043312

Device Test: 71.8 V_PG_HYS(POWER_GOOD|//HYSTERESIS/6N0V///@V_PG_HYS)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



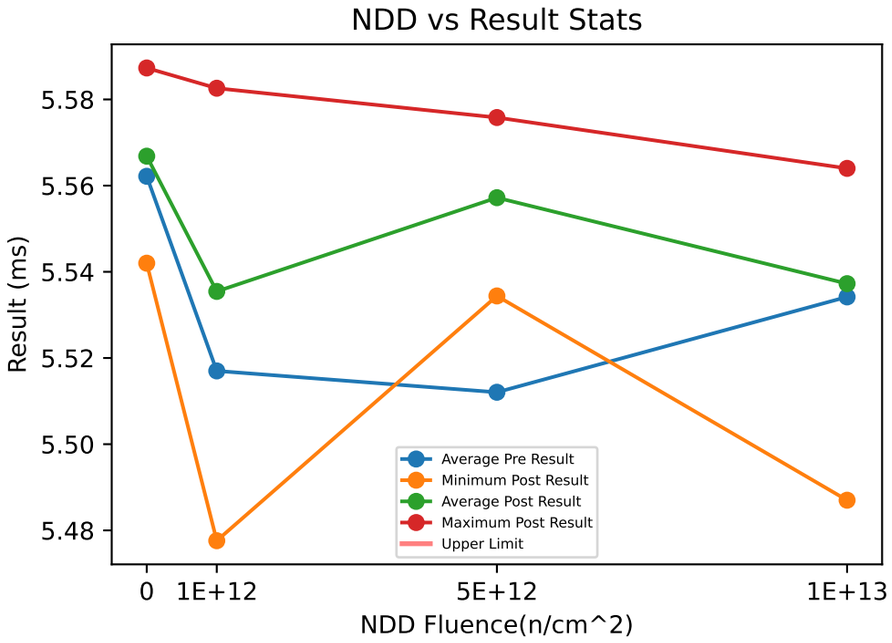
Test Results (No Limits Specified ())

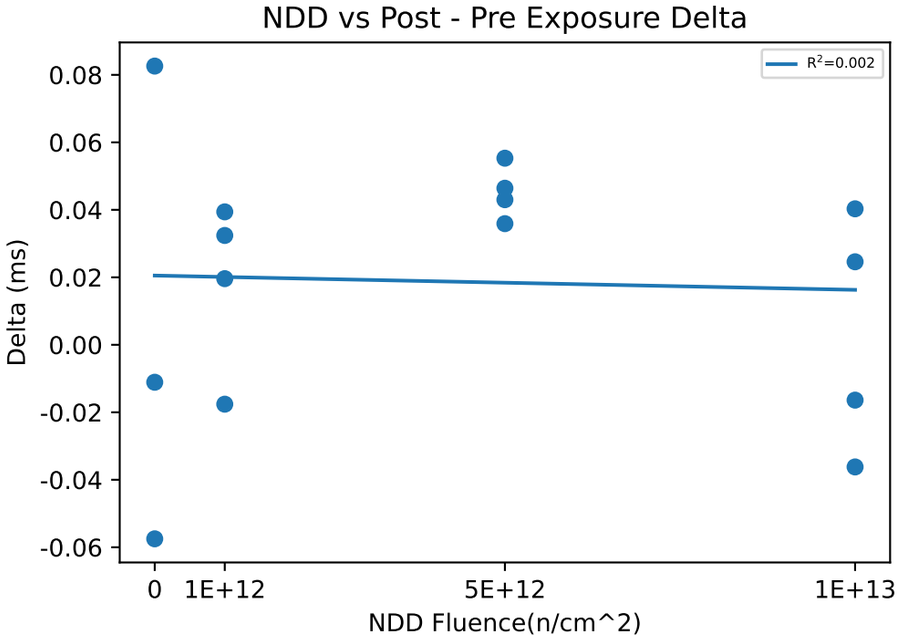
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	5.0032	5.6825	0.6793
2	0	CU2	5.11	5.426	0.316
3	0	CU3	5.4479	5.301	-0.1469
10	1e+12	1E12n/cm2	5.2252	5.2328	0.0076
11	1e+12	1E12n/cm2	5.5827	5.5838	0.0011
12	1e+12	1E12n/cm2	5.5034	5.5111	0.0077
13	1e+12	1E12n/cm2	5.4251	5.4342	0.0091
20	5e+12	5E12n/cm2	5.1831	5.5932	0.4101
21	5e+12	5E12n/cm2	5.0528	5.4637	0.4109
22	5e+12	5E12n/cm2	5.4391	5.131	-0.3081
23	5e+12	5E12n/cm2	5.2138	5.6321	0.4183
30	1e+13	1E13n/cm2	5.3451	5.604	0.2589
31	1e+13	1E13n/cm2	5.0437	5.1393	0.0956
32	1e+13	1E13n/cm2	5.2746	5.5332	0.2586
33	1e+13	1E13n/cm2	5.455	5.5382	0.0832

Test Statistics ()

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.0032	5.187	5.4479	0.23214	5.301	5.4698	5.6825	0.19449	-0.1469	0.2828	0.6793	0.4141
1e+12	5.2252	5.4341	5.5827	0.15341	5.2328	5.4405	5.5838	0.15133	0.0011	0.006375	0.0091	0.0035827
5e+12	5.0528	5.2222	5.4391	0.16056	5.131	5.455	5.6321	0.22768	-0.3081	0.2328	0.4183	0.36062
1e+13	5.0437	5.2796	5.455	0.17391	5.1393	5.4537	5.604	0.21205	0.0832	0.17407	0.2589	0.097905

Device Test: 75.1 I_CP_DISCHARGE(CPOUT|//DISCHARGE_TIME///3/@I_CP_DISCHARGE)





Test Results (No Limits Specified (ms))

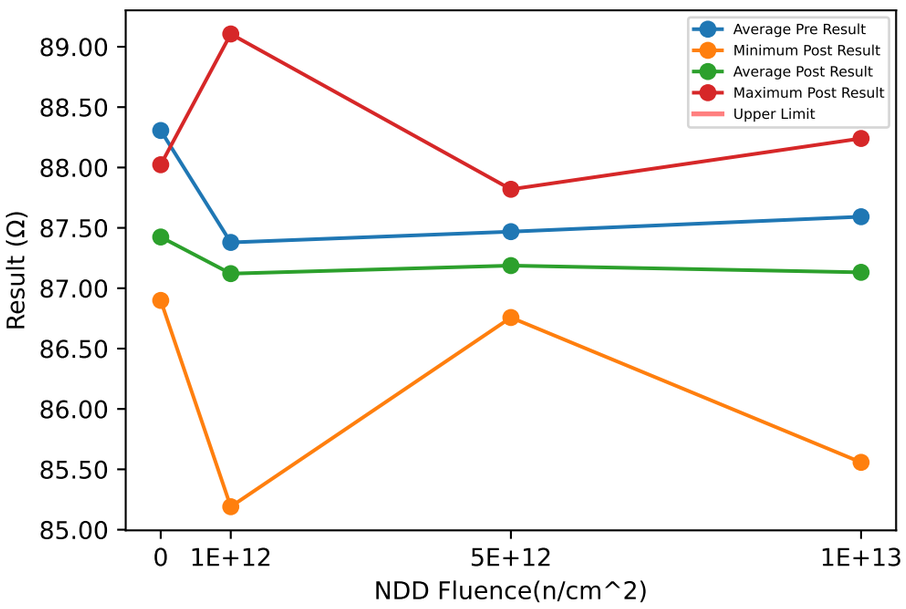
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	5.4594	5.542	0.0826
2	0	CU2	5.5984	5.5873	-0.0111
3	0	CU3	5.6287	5.5712	-0.0575
10	1e+12	1E12n/cm2	5.4452	5.4776	0.0324
11	1e+12	1E12n/cm2	5.5095	5.5489	0.0394
12	1e+12	1E12n/cm2	5.5131	5.5327	0.0196
13	1e+12	1E12n/cm2	5.6002	5.5826	-0.0176
20	5e+12	5E12n/cm2	5.5205	5.5758	0.0553
21	5e+12	5E12n/cm2	5.4985	5.5344	0.0359
22	5e+12	5E12n/cm2	5.5017	5.5447	0.043
23	5e+12	5E12n/cm2	5.5275	5.5739	0.0464
30	1e+13	1E13n/cm2	5.5534	5.537	-0.0164
31	1e+13	1E13n/cm2	5.4624	5.487	0.0246
32	1e+13	1E13n/cm2	5.5207	5.561	0.0403
33	1e+13	1E13n/cm2	5.6002	5.564	-0.0362

Test Statistics (ms)

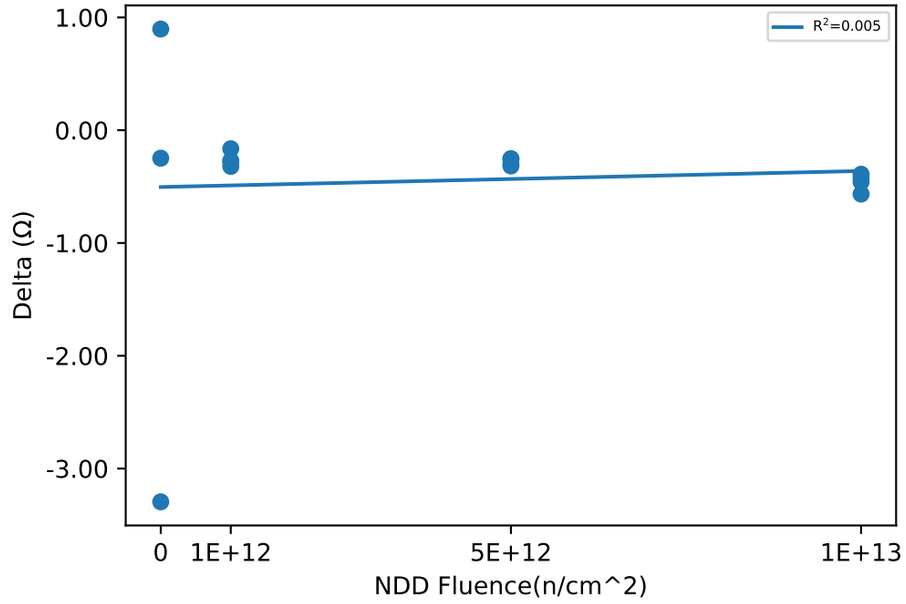
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.4594	5.5622	5.6287	0.090279	5.542	5.5668	5.5873	0.022964	-0.0575	0.0046667	0.0826	0.071368
1e+12	5.4452	5.517	5.6002	0.063637	5.4776	5.5354	5.5826	0.043811	-0.0176	0.01845	0.0394	0.025393
5e+12	5.4985	5.5121	5.5275	0.014152	5.5344	5.5572	5.5758	0.020824	0.0359	0.04515	0.0553	0.0080575
1e+13	5.4624	5.5342	5.6002	0.057914	5.487	5.5373	5.564	0.035612	-0.0362	0.003075	0.0403	0.035453

Device Test: 75.2 R_CP_DISCHARGE(CPOUT|//DISHARGE_RESISTANCE///3/@R_CP_DISCHARGE)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



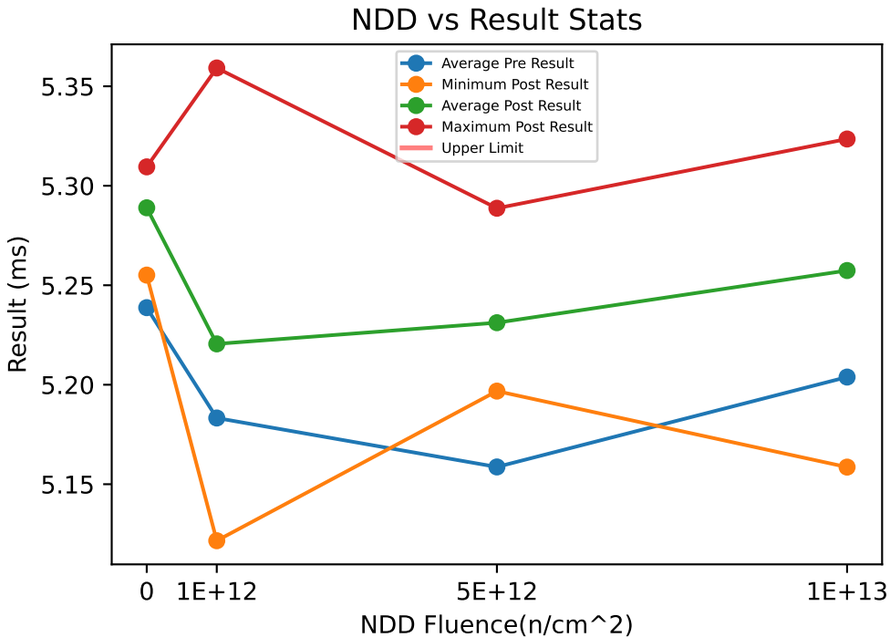
Test Results (No Limits Specified (Ω))

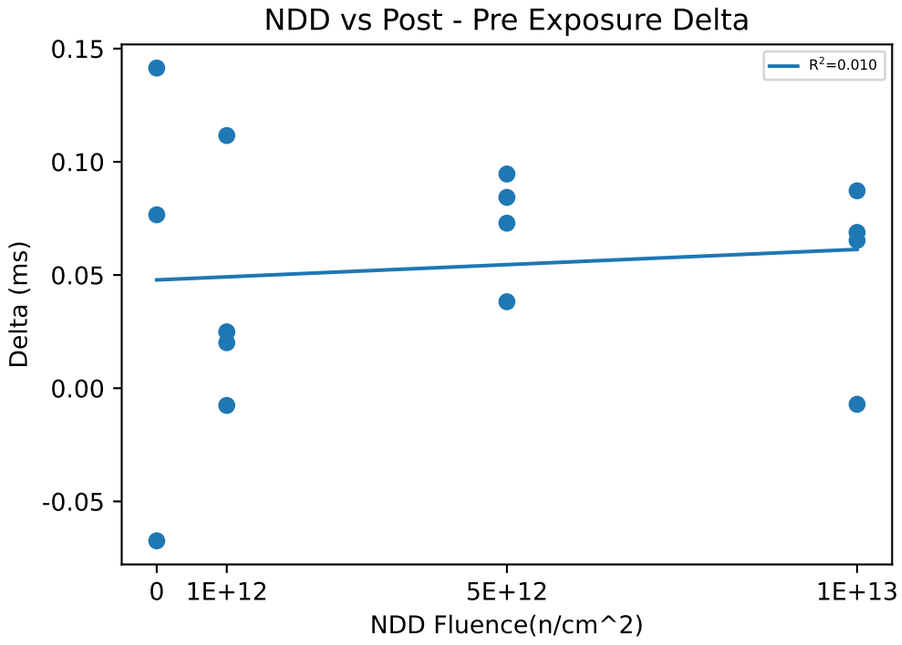
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	86.002	86.899	0.8967
2	0	CU2	88.271	88.023	-0.248
3	0	CU3	90.646	87.351	-3.2949
10	1e+12	1E12n/cm2	85.46	85.19	-0.2692
11	1e+12	1E12n/cm2	87.67	87.349	-0.321
12	1e+12	1E12n/cm2	87.117	86.838	-0.2787
13	1e+12	1E12n/cm2	89.27	89.106	-0.1646
20	5e+12	5E12n/cm2	88.073	87.82	-0.2531
21	5e+12	5E12n/cm2	87.106	86.853	-0.2537
22	5e+12	5E12n/cm2	87.074	86.757	-0.3171
23	5e+12	5E12n/cm2	87.621	87.32	-0.3008
30	1e+13	1E13n/cm2	88.105	87.679	-0.4263
31	1e+13	1E13n/cm2	86.124	85.558	-0.5661
32	1e+13	1E13n/cm2	87.44	87.05	-0.3903
33	1e+13	1E13n/cm2	88.7	88.24	-0.4593

Test Statistics (Ω)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	86.002	88.306	90.646	2.3219	86.899	87.424	88.023	0.56554	-3.2949	-0.88207	0.8967	2.1665
1e+12	85.46	87.379	89.27	1.5723	85.19	87.121	89.106	1.6124	-0.321	-0.25838	-0.1646	0.066448
5e+12	87.074	87.469	88.073	0.47424	86.757	87.187	87.82	0.48794	-0.3171	-0.28117	-0.2531	0.032756
1e+13	86.124	87.592	88.7	1.1058	85.558	87.132	88.24	1.1565	-0.5661	-0.4605	-0.3903	0.07583

Device Test: 75.3 I_CP_DISCHARGE(CPOUT|//DISCHARGE_TIME///6.3/@I_CP_DISCHARGE)





Test Results (No Limits Specified (ms))

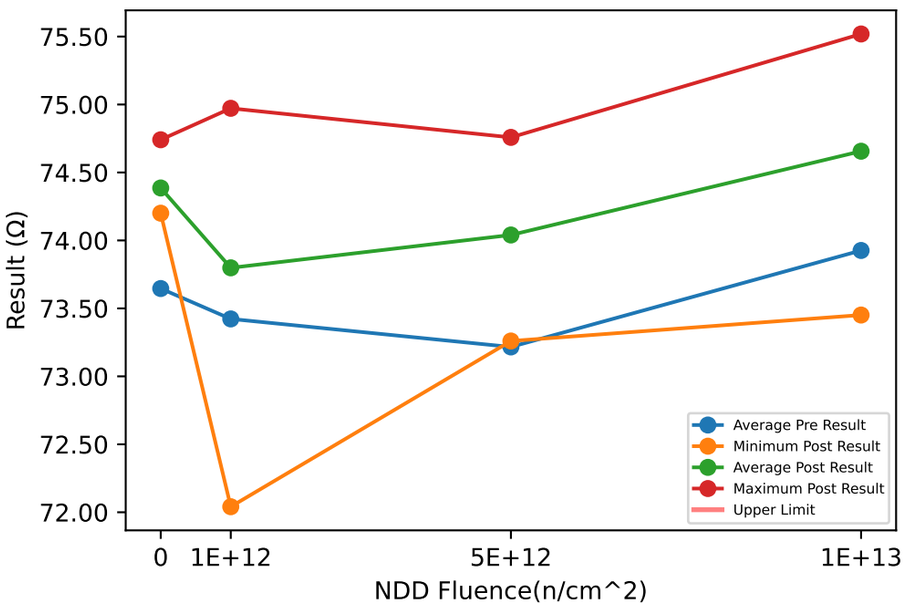
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	5.1137	5.2551	0.1414
2	0	CU2	5.2329	5.3095	0.0766
3	0	CU3	5.3696	5.3022	-0.0674
10	1e+12	1E12n/cm2	5.0967	5.1216	0.0249
11	1e+12	1E12n/cm2	5.1906	5.2107	0.0201
12	1e+12	1E12n/cm2	5.1982	5.1906	-0.0076
13	1e+12	1E12n/cm2	5.2476	5.3592	0.1116
20	5e+12	5E12n/cm2	5.12	5.2146	0.0946
21	5e+12	5E12n/cm2	5.1517	5.2246	0.0729
22	5e+12	5E12n/cm2	5.1586	5.1968	0.0382
23	5e+12	5E12n/cm2	5.2044	5.2887	0.0843
30	1e+13	1E13n/cm2	5.2175	5.2828	0.0653
31	1e+13	1E13n/cm2	5.1657	5.1586	-0.0071
32	1e+13	1E13n/cm2	5.1959	5.2647	0.0688
33	1e+13	1E13n/cm2	5.2363	5.3235	0.0872

Test Statistics (ms)

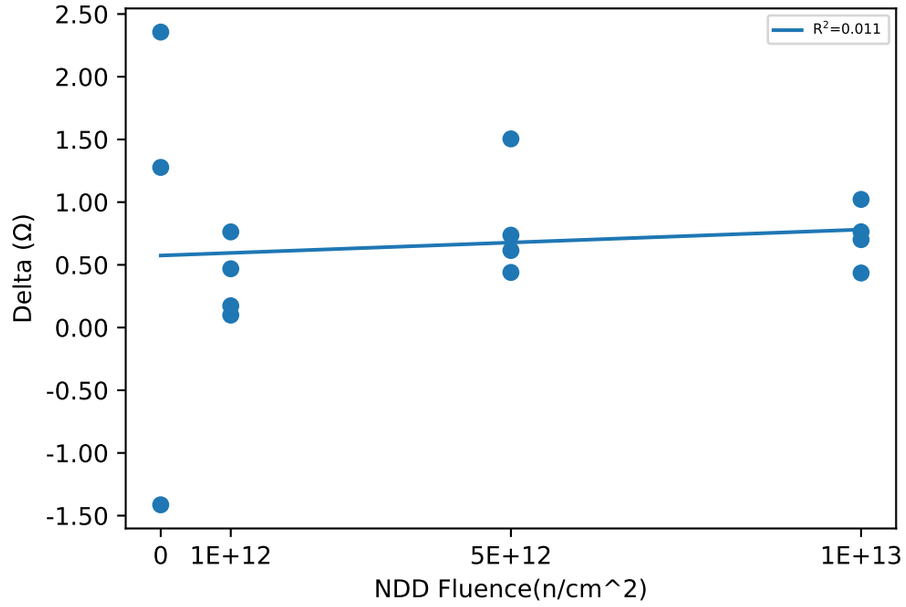
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	5.1137	5.2387	5.3696	0.12805	5.2551	5.2889	5.3095	0.029527	-0.0674	0.0502	0.1414	0.10687
1e+12	5.0967	5.1833	5.2476	0.063006	5.1216	5.2205	5.3592	0.10001	-0.0076	0.03725	0.1116	0.051595
5e+12	5.12	5.1587	5.2044	0.03481	5.1968	5.2312	5.2887	0.040036	0.0382	0.0725	0.0946	0.024524
1e+13	5.1657	5.2039	5.2363	0.03032	5.1586	5.2574	5.3235	0.070307	-0.0071	0.05355	0.0872	0.041559

Device Test: 75.4 R_CP_DISCHARGE(CPOUT|//DISHARGE_RESISTANCE///6.3/@R_CP_DISCHARGE)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



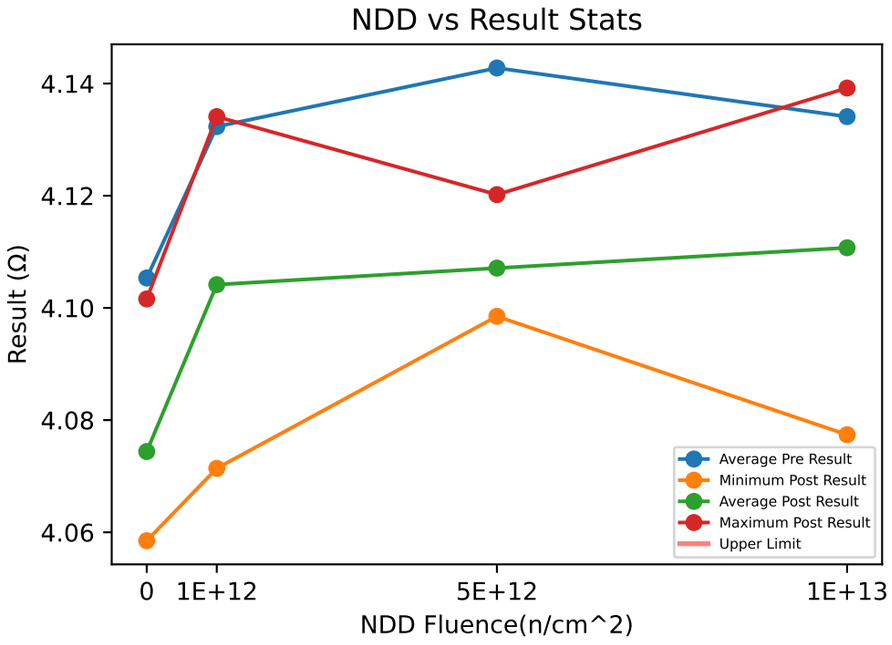
Test Results (No Limits Specified (Ω))

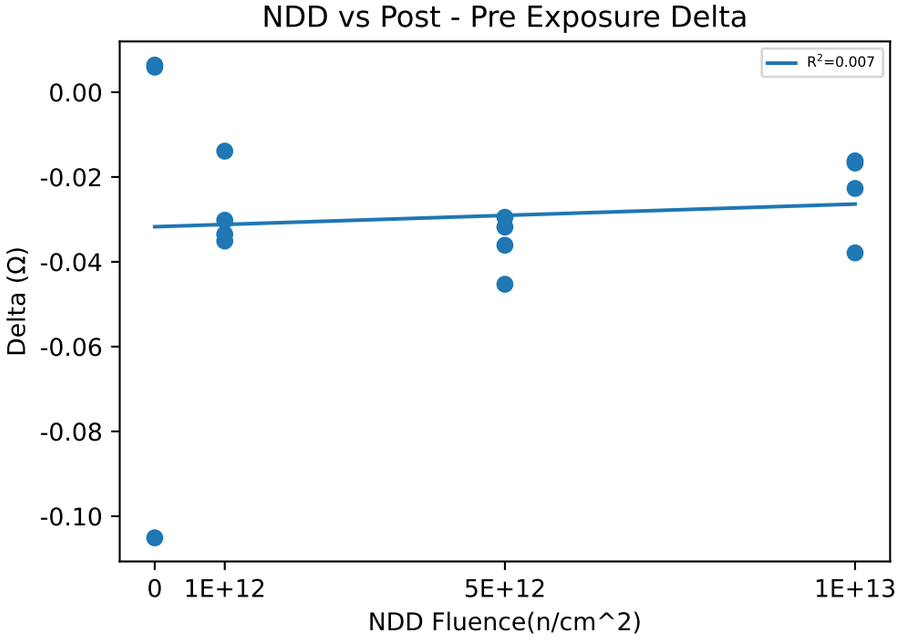
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	71.86	74.216	2.3561
2	0	CU2	73.464	74.741	1.2769
3	0	CU3	75.614	74.2	-1.4137
10	1e+12	1E12n/cm2	71.572	72.041	0.4685
11	1e+12	1E12n/cm2	73.965	74.138	0.1734
12	1e+12	1E12n/cm2	73.944	74.043	0.0991
13	1e+12	1E12n/cm2	74.209	74.972	0.7627
20	5e+12	5E12n/cm2	71.756	73.26	1.5044
21	5e+12	5E12n/cm2	73.197	73.934	0.7366
22	5e+12	5E12n/cm2	73.593	74.208	0.6145
23	5e+12	5E12n/cm2	74.319	74.758	0.4392
30	1e+13	1E13n/cm2	74.63	75.065	0.4348
31	1e+13	1E13n/cm2	72.75	73.451	0.7011
32	1e+13	1E13n/cm2	73.827	74.59	0.7634
33	1e+13	1E13n/cm2	74.497	75.519	1.0216

Test Statistics (Ω)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	71.86	73.646	75.614	1.8834	74.2	74.386	74.741	0.30737	-1.4137	0.73977	2.3561	1.9415
1e+12	71.572	73.422	74.209	1.2393	72.041	73.798	74.972	1.2438	0.0991	0.37592	0.7627	0.30321
5e+12	71.756	73.216	74.319	1.0789	73.26	74.04	74.758	0.62276	0.4392	0.82367	1.5044	0.46994
1e+13	72.75	73.926	74.63	0.85931	73.451	74.656	75.519	0.88846	0.4348	0.73023	1.0216	0.24092

Device Test: 80.1 R_CP_OUT_3V(CPOUT|//OUTPUT_RESISTANCE//150mA/3/@R_CP_OUT_3V)





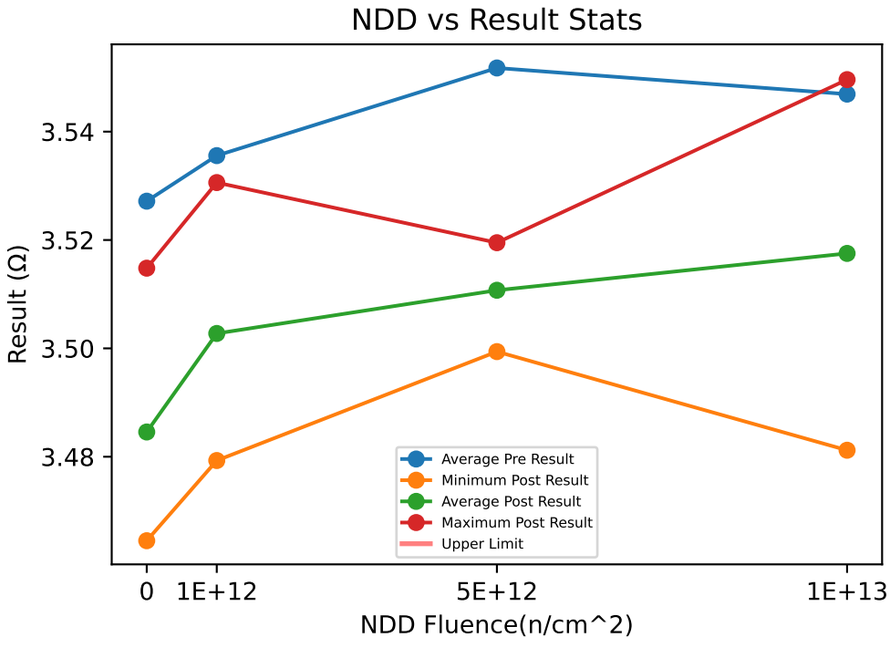
Test Results (No Limits Specified (Ω))

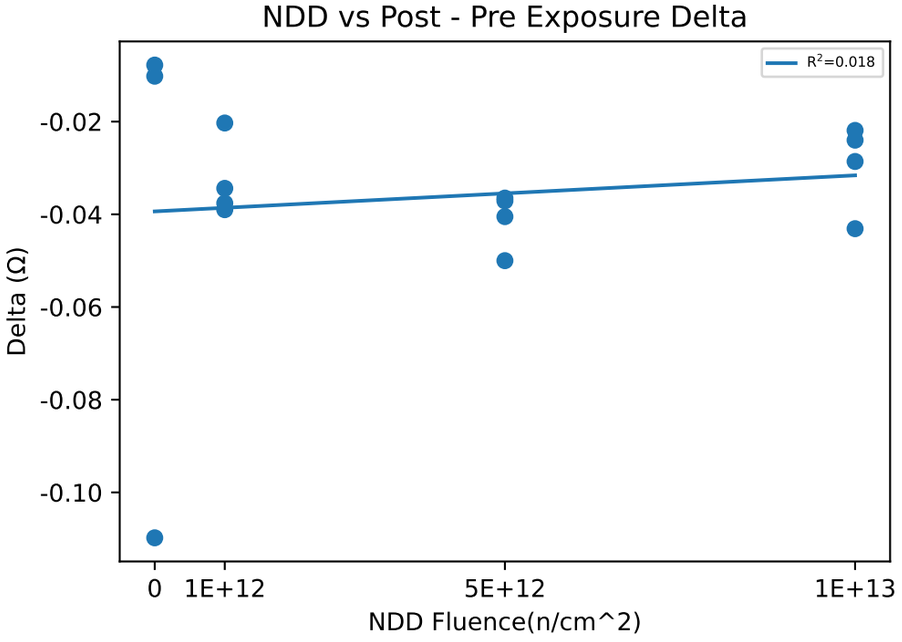
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	4.1636	4.0585	-0.1051
2	0	CU2	4.0572	4.0631	0.0059
3	0	CU3	4.0952	4.1016	0.0064
10	1e+12	1E12n/cm2	4.1186	4.0835	-0.0351
11	1e+12	1E12n/cm2	4.1415	4.1276	-0.0139
12	1e+12	1E12n/cm2	4.1643	4.1341	-0.0302
13	1e+12	1E12n/cm2	4.1049	4.0714	-0.0335
20	5e+12	5E12n/cm2	4.1497	4.1202	-0.0295
21	5e+12	5E12n/cm2	4.1348	4.103	-0.0318
22	5e+12	5E12n/cm2	4.1438	4.0985	-0.0453
23	5e+12	5E12n/cm2	4.1428	4.1067	-0.0361
30	1e+13	1E13n/cm2	4.1153	4.0774	-0.0379
31	1e+13	1E13n/cm2	4.1559	4.1392	-0.0167
32	1e+13	1E13n/cm2	4.136	4.1133	-0.0227
33	1e+13	1E13n/cm2	4.1292	4.113	-0.0162

Test Statistics (Ω)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	4.0572	4.1053	4.1636	0.053919	4.0585	4.0744	4.1016	0.023668	-0.1051	-0.030933	0.0064	0.064231
1e+12	4.1049	4.1323	4.1643	0.026122	4.0714	4.1041	4.1341	0.031336	-0.0351	-0.028175	-0.0139	0.0097329
5e+12	4.1348	4.1428	4.1497	0.0061266	4.0985	4.1071	4.1202	0.0093549	-0.0453	-0.035675	-0.0295	0.0069754
1e+13	4.1153	4.1341	4.1559	0.016895	4.0774	4.1107	4.1392	0.025385	-0.0379	-0.023375	-0.0162	0.010124

Device Test: 80.2 R_CP_OUT_5V(CPOUT|//OUTPUT_RESISTANCE//250mA/5/@R_CP_OUT_5V)





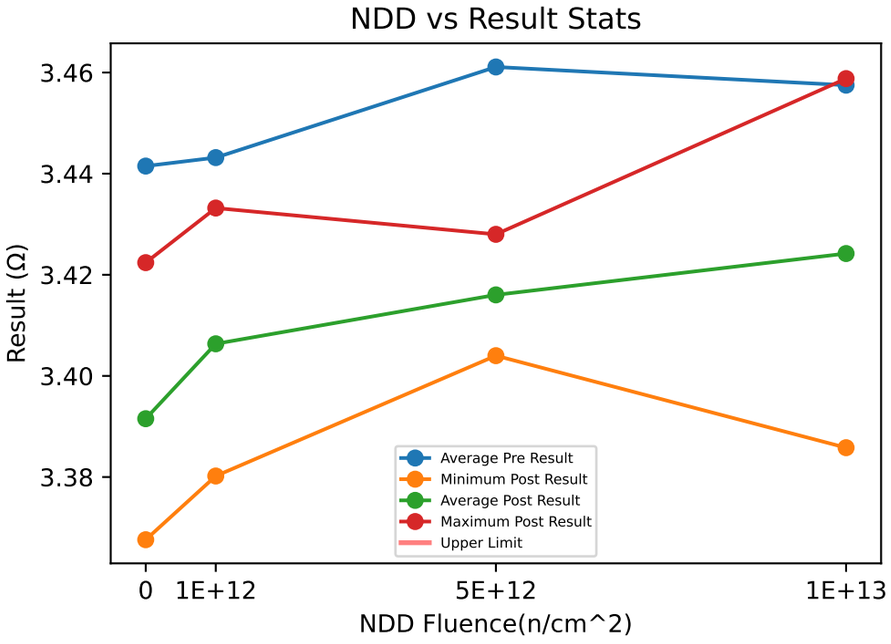
Test Results (No Limits Specified (Ω))

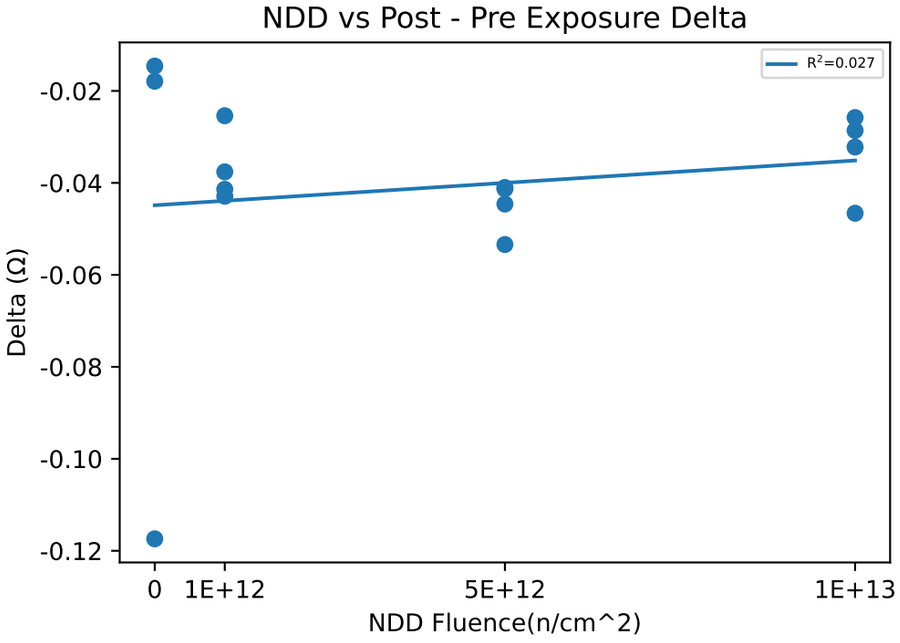
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	3.5743	3.4645	-0.1098
2	0	CU2	3.4822	3.4744	-0.0078
3	0	CU3	3.525	3.5148	-0.0102
10	1e+12	1E12n/cm2	3.5183	3.4793	-0.039
11	1e+12	1E12n/cm2	3.5391	3.5188	-0.0203
12	1e+12	1E12n/cm2	3.565	3.5306	-0.0344
13	1e+12	1E12n/cm2	3.5199	3.4823	-0.0376
20	5e+12	5E12n/cm2	3.556	3.5195	-0.0365
21	5e+12	5E12n/cm2	3.5424	3.5053	-0.0371
22	5e+12	5E12n/cm2	3.5494	3.4994	-0.05
23	5e+12	5E12n/cm2	3.5592	3.5187	-0.0405
30	1e+13	1E13n/cm2	3.5243	3.4812	-0.0431
31	1e+13	1E13n/cm2	3.5736	3.5496	-0.024
32	1e+13	1E13n/cm2	3.5496	3.521	-0.0286
33	1e+13	1E13n/cm2	3.5402	3.5183	-0.0219

Test Statistics (Ω)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.4822	3.5272	3.5743	0.046088	3.4645	3.4846	3.5148	0.026647	-0.1098	-0.0426	-0.0078	0.058209
1e+12	3.5183	3.5356	3.565	0.021775	3.4793	3.5027	3.5306	0.025828	-0.039	-0.032825	-0.0203	0.0085691
5e+12	3.5424	3.5518	3.5592	0.0074501	3.4994	3.5107	3.5195	0.0099714	-0.05	-0.041025	-0.0365	0.0062372
1e+13	3.5243	3.5469	3.5736	0.020622	3.4812	3.5175	3.5496	0.028053	-0.0431	-0.0294	-0.0219	0.0095523

Device Test: 80.3 R_CP_OUT_6P3V(CPOUT|//OUTPUT_RESISTANCE//250mA/6.3/@R_CP_OUT_6P3V)





Test Results (No Limits Specified (Ω))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
1	0	CU1	3.485	3.3676	-0.1174
2	0	CU2	3.3992	3.3846	-0.0146
3	0	CU3	3.4403	3.4224	-0.0179
10	1e+12	1E12n/cm2	3.4231	3.3802	-0.0429
11	1e+12	1E12n/cm2	3.4447	3.4193	-0.0254
12	1e+12	1E12n/cm2	3.4708	3.4332	-0.0376
13	1e+12	1E12n/cm2	3.4341	3.3927	-0.0414
20	5e+12	5E12n/cm2	3.4624	3.4214	-0.041
21	5e+12	5E12n/cm2	3.452	3.4107	-0.0413
22	5e+12	5E12n/cm2	3.4574	3.404	-0.0534
23	5e+12	5E12n/cm2	3.4726	3.428	-0.0446
30	1e+13	1E13n/cm2	3.4324	3.3858	-0.0466
31	1e+13	1E13n/cm2	3.4874	3.4588	-0.0286
32	1e+13	1E13n/cm2	3.4607	3.4285	-0.0322
33	1e+13	1E13n/cm2	3.4495	3.4237	-0.0258

Test Statistics (Ω)

Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	3.3992	3.4415	3.485	0.042913	3.3676	3.3915	3.4224	0.02805	-0.1174	-0.049967	-0.0146	0.058422
1e+12	3.4231	3.4432	3.4708	0.020419	3.3802	3.4063	3.4332	0.024213	-0.0429	-0.036825	-0.0254	0.0079366
5e+12	3.452	3.4611	3.4726	0.0087643	3.404	3.416	3.428	0.010728	-0.0534	-0.045075	-0.041	0.0057847
1e+13	3.4324	3.4575	3.4874	0.023081	3.3858	3.4242	3.4588	0.029947	-0.0466	-0.0333	-0.0258	0.0092455

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