Radiation Report

TPS7H1121-SP Neutron Displacement Damage (NDD) Characterization Report

ABSTRACT

This report presents the effect of neutron displacement damage (NDD) on the Texas Instruments TPS7H1121-SP. The TPS7H1121-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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1 Device Information

1.1 Product Description

The TPS7H1121-SP is a radiation-hardened low dropout linear regulator (LDO) which operates over a wide range of input voltages optimized for powering devices in a space environment. It is capable of sourcing up to 2A over a 2.25V to 14V input. The device offers excellent stability and features a programmable current limit with a wide adjustment range. To support the complex power requirements of FPGAs, DSPs, and microcontrollers, the TPS7H1121-SP provides enable on and off functionality, programmable soft start, and a power good open-drain output.

1.2 Device Details

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

Table 1-1. Device and Exposure Details

NDD Exposure Details	
TI Device	TPS7H1121-SP
TI Part Name	5962R2320301VXC
Package	22-pin CFP (HFT)
Technology	Linear BiCMOS (LBC7)
Lot Number / Date Code	4002887 / 2424A
Sample Quantity	9 +4 correlation 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 (25ºC)

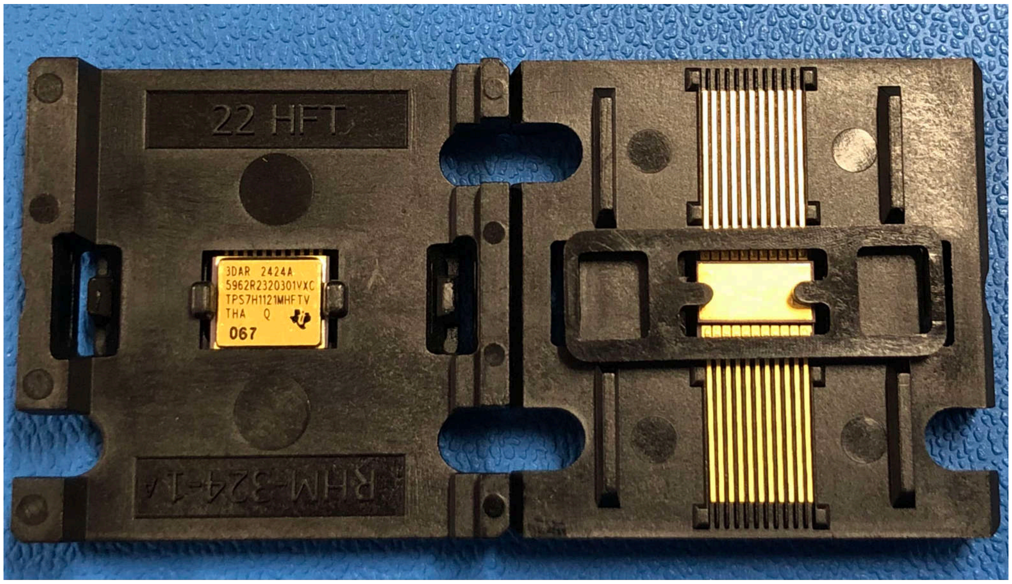

Figure 1-1. TPS7H1121-SP Device Used In Exposure

2 Total Dose Test Setup

2.1 Test Overview

General test procedures adhere to MIL-STD-883, Method 1017 as a guide for neutron irradiation. The TPS7H1121-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.

2.2 Test Facility

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 Condition

Table 2-1. Neutron Irradiation Conditions

GROUP	SAMPLE QTY	NEUTRON FLUENCE (n/cm^2)	BIAS
A	3	1.0×10^{12}	Unbias
B	3	5.0×10^{12}	Unbias
C	3	1.0×10^{13}	Unbias
Correlation Units	4	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 nine units was exposed for neutron irradiation and an additional unirradiated control unit was used as correlation. Overall, the TPS7H1121-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 did show a greater degree of change between pre- and post-irradiation were still within the electrical performance characteristics specified in the data sheet electrical parameters. See Section 3.2 for 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 × 10^{13} n/cm^2.

3.2 Data Sheet Electrical Parameter Characteristics

Over 2.25V ≤ V_{IN} ≤ 14V, $V_{OUT\ (set)}$ ≤ V_{IN} – 0.5V, I_{OUT} = 10mA, C_{OUT} = 47µF, typical values are at T_A = 25°C, unless otherwise noted.

Parameter		Test Conditions		MIN	TYP	MAX	UNIT	Test Number
POWER SUPPLIES AND CURRENTS								
V_{DO}	Dropout voltage V_{DO} = $V_{IN(forced)}$ – $V_{OUT(set)}$	$V_{OUT(set)}$ = 2.25V, $V_{OUT(measured)}$ = 98% × $V_{OUT(NOM)}$	I_{OUT} = 100mA		28	60	mV	17.3
			I_{OUT}= 250mA		70	141		17.6
			IOUT= 500mA		150	280		17.9
			I_{OUT} = 1A		300	570		17.12
		$V_{OUT(set)}$ = 2.5V, $V_{OUT(measured)}$ = 98% × $V_{OUT(NOM)}$	I_{OUT}= 1.5A		525	750	mV	17.15
			I_{OUT}= 2A		570	900		17.18
		3 ≤ $V_{OUT(set)}$ ≤ 13.3V, $V_{OUT(measured)}$ = 98% × $V_{OUT(NOM)}$	I_{OUT}= 100mA		20	50	mV	17.21, 17.24
			I_{OUT}= 250mA		70	100		17.27, 17.30
			I_{OUT} = 500mA		125	180		17.33, 17.36
			I_{OUT} = 1A		300	340		17.39, 17.42
			I_{OUT} = 1.5A		325	490		17.45, 17.48
			I_{OUT} = 2A		500	700		17.51, 17.54
I_{PCL}	Programmed current limit	V_{IN} = 3.3V, $V_{OUT(short)}$ = 0.1V	RCL = 442kΩ	0.19	0.32	0.45	A	16.1
			RCL = 174kΩ	0.485	0.75	1.01		16.2
			RCL = 82.5kΩ	1.16	1.55	1.94		16.3
			RCL = 41.2kΩ	2.4	3	3.6		16.4
I_Q	Quiescent current	V_{EN} = 7V, I_{OUT} = 0A			8.75	15	mA	11.7, 11.9, 11.12

Parameter		Test Conditions		MIN	TYP	MAX	UNIT	Test Number
I_{GND}	Ground current	V_{EN} = 7V	I_{OUT} = 1A		10	18	mA	11.13, 11.14
			I_{OUT} = 2A		13	20	mA	11.15, 11.16, 11.17
VLDO	Internal linear regulator output voltage	V_{IN} = 2.25V		2.05	2.2	2.25	V	15.7
		3V ≤ V_{IN} ≤ 14V		2.3	2.55	2.78		15.64
I_{SHDN}	Shutdown current	V_{EN} = 0V, I_{OUT} = 0A, V_{OUT} = 0V			380	775	µA	11.1, 11.2, 11.3, 11.4, 11.5, 11.6
I_{FB}	Feedback leakage current	V_{FB} = 0.7V			1	15	nA	15.80
ACCURACY								
V_{ACC}	Output voltage accuracy	10mA ≤I_{OUT} ≤ 2A, 0.6V ≤ V_{OUT} ≤ V_{IN} – V_{DO}, P_D ≤ 3W	3V ≤ V_{IN} ≤ 14V	-1.5%		1.5%		
			3V ≤ V_{IN} ≤ 14V, T_A = 25°C	-1.1%		1.1%		15.44, 15.57, 15.62, 15.68, 15.73, 15.78
			2.25V ≤ V_{IN} ≤ 3V	-1.8%		1.8%		15.5, 15.11, 15.16, 15.21, 15.26, 15.31
V_{FB}	Feedback voltage	3V ≤ V_{IN} ≤ 14V		0.588	0.596	0.606	V	
			T_A = 25°C	0.591	0.596	0.603		15.36, 15.40, 15.45, 15.49, 15.53, 15.63, 15.74, 15.79
		2.25V ≤ V_{IN} ≤ 3V		0.586	0.596	0.608		15.6, 15.12, 15.17, 15.22, 15.27, 15.32
$\Delta V_{OUT}/\Delta V_{IN}$	Line regulation	3V ≤ V_{In} ≤ 14V			100	650	µV/V	18.5
		2.25V ≤ V_{In} ≤ 3V			285	1800		18.4
$\Delta V_{OUT}/\Delta I_{OUT}$	Load regulation	10mA ≤ I_{OUT} ≤ 2A, V_{IN} = 4.5V, V_{OUT} = 3.3V			4	16	mV/A	19.5

Parameter		Test Conditions	MIN	TYP	MAX	UNIT	Test Number
ENABLE							
$V_{EN(rising)}$	Enable rising threshold (turn-on)		0.565	0.605	0.625	V	13.1, 13.4, 13.7, 13.10, 13.13, 13.16, 13.19
$V_{EN(falling)}$	Enable falling threshold (turn-off)		0.465	0.5	0.52	V	13.2, 13.5, 13.8, 13.11, 13.14, 13.17, 13.20
$t_{EN(delay)}$	EN propogation delay	EN high to V_{OUT} = 10mV		50	150	µs	13.24, 13.25, 13.26, 13.27, 13.28, 13.29, 13.30, 13.31, 13.32, 13.33
$I_{EN(LKG)}$	Enable leakage current	V_{EN} = 7V		1	30	nA	13.22, 13.23
POWER GOOD							
V_{PG_RISE}	Power good rising as percent of V_{OUT}		93%	95%	97%		14.1, 14.4, 14.7, 14.10, 14.13, 14.16
V_{PG_FALL}	Power good falling as percent of V_{OUT}		88.5%	91.5%	94%		14.2, 14.5, 14.8, 14.11, 14.14, 14.17
$V_{PG(OL)}$	Power good output low	$I_{PG(SINK)}$ = 2mA		90	190	mV	14.19, 14.20
$V_{IN(MIN\_PG)}$	Minimum V_{IN} for valid PG (V_{PG} < 0.5V)	$I_{PG(SINK)}$ = 0.5mA		0.6	0.8	V	14.21
$I_{PG(LKG)}$	Power good leakage	V_{PG} = 7V, V_{FB} = 0.7V		0.05	2	µA	14.22, 14.23
SOFT START							
I_{SS}	Soft-start current		1.4	2	2.7	µA	20.1, 20.2

Parameter		**Test Conditions**		**MIN**	**TYP**	**MAX**	**UNIT**	**Test Number**
t_{SS}	Soft-start time	V_{IN} = 5V, V_{OUT} = 3.3V, measured from V_{OUT} = 10mV to PG assert	C_{SS} = 1nF	0.22	0.35	0.48	ms	20.3
			C_{SS} = 33nF	5.5	10	14.5		20.4
STABILITY								
GM	Gain Margin	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{OUT} = 47µF, T_A = 25℃			24		dB	
PM	Phase Margin	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{OUT} = 47µF, T_A = 25 ℃			60°			
NOISE AND PSRR								
PSRR	Power-supply rejection ratio	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{SS} = 5.6nF	f_{ripple} = 100Hz		68		dB	
			f_{ripple} = 1kHz		72			
			f_{ripple} = 10kHz		51			
			f_{ripple} = 100kHz		40			
			f_{ripple} = 1MHz		34			
V_N	Output noise voltage (Bandwidth from 10Hz to 100kHz)	V_{IN} = 5V, V_{OUT} = 3.3V, I_{OUT} = 1A, C_{SS} = 5.6nF			35		μV_{RMS}	

4 Applicable and Reference Documents

4.1 Applicable Documents

- Texas Instruments, *TPS7H1121-SP 2.25 V to 14-V Input, 2-A, Radiation Hardened LDO Regulator*, data sheet.
- Texas Instruments, *TPS7H1121EVM-CVAL Evaluation Module (EVM)*, EVM user's guide.

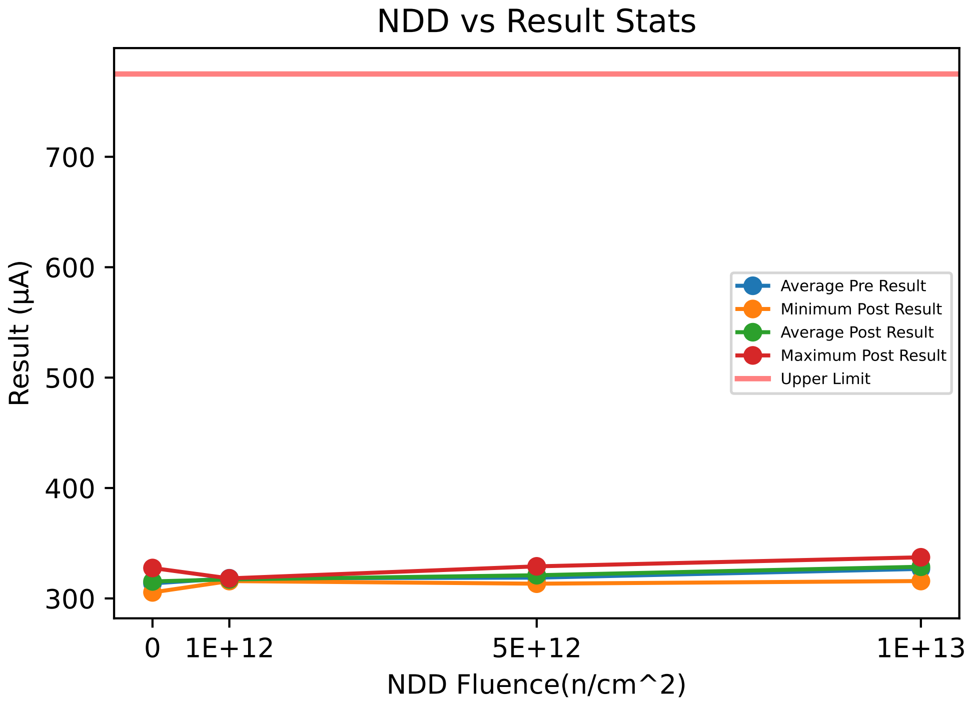
4.2 Reference Documents

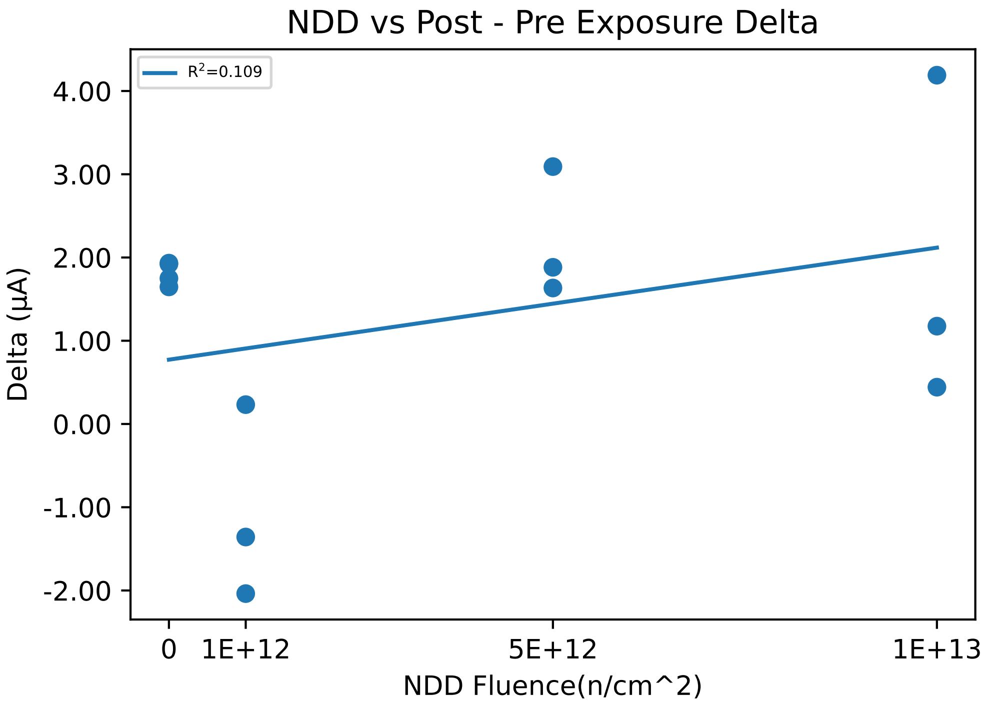
Texas Instruments neutron irradiation test follow the guideline from MIL-STD-883 TM 1017. The document is available in Defense Logistic Agency's website.

A Appendix: NDD Report Data

This appendix contains the NDD report data.

Device Test: 11.1 I_SHDN(ISHDN|SUPPLY/IN/2.25//0/0//@I_SHDN)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

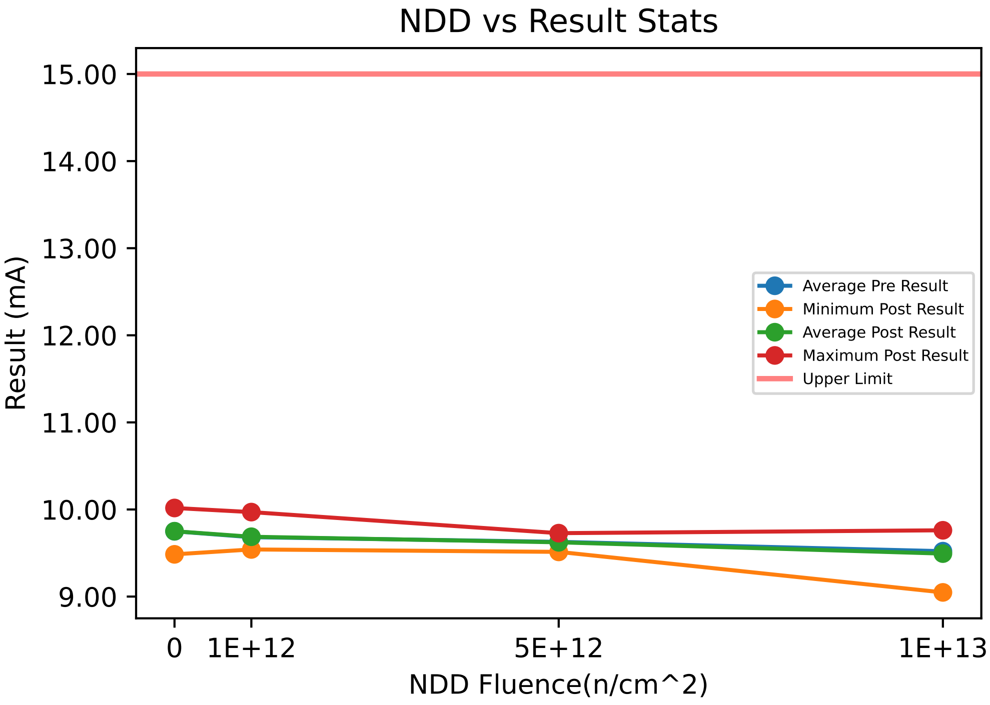
Test Results (Upper Limit = 775.0 (µA))

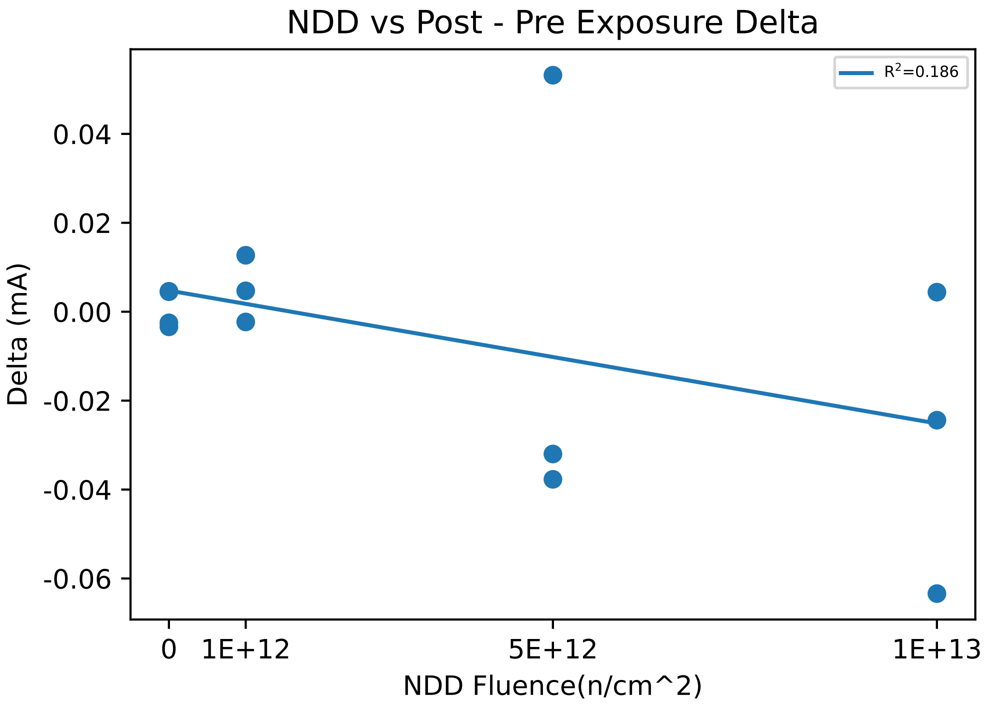
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	319.51	318.15	-1.3577
65	1e+12	NDD unbiased	315.47	315.7	0.2325
66	1e+12	NDD unbiased	319.81	317.77	-2.0375
67	1e+13	NDD unbiased	333.06	337.25	4.1899
68	1e+13	NDD unbiased	315.3	315.75	0.4422
70	1e+13	NDD unbiased	331.86	333.04	1.1753
71	5e+12	NDD unbiased	325.95	329.05	3.0919
72	5e+12	NDD unbiased	318.71	320.59	1.8821
73	5e+12	NDD unbiased	311.71	313.35	1.6336
187	0	Correlation	312.49	314.14	1.647
188	0	Correlation	325.64	327.56	1.9219
189	0	Correlation	312.52	314.45	1.9323
190	0	Correlation	303.71	305.45	1.7493

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	303.71	313.59	325.64	9.0405	305.45	315.4	327.56	9.1148	1.647	1.8126	1.9323	0.13869
1e+12	315.47	318.26	319.81	2.4234	315.7	317.21	318.15	1.3181	-2.0375	-1.0542	0.2325	1.165
5e+12	311.71	318.79	325.95	7.1205	313.35	321	329.05	7.8571	1.6336	2.2025	3.0919	0.78017
1e+13	315.3	326.74	333.06	9.9232	315.75	328.68	337.25	11.395	0.4422	1.9358	4.1899	1.9862

Device Test: 11.12 I_Q(IQ|SUPPLY/IN/5/3.3/7/0//@I_Q)





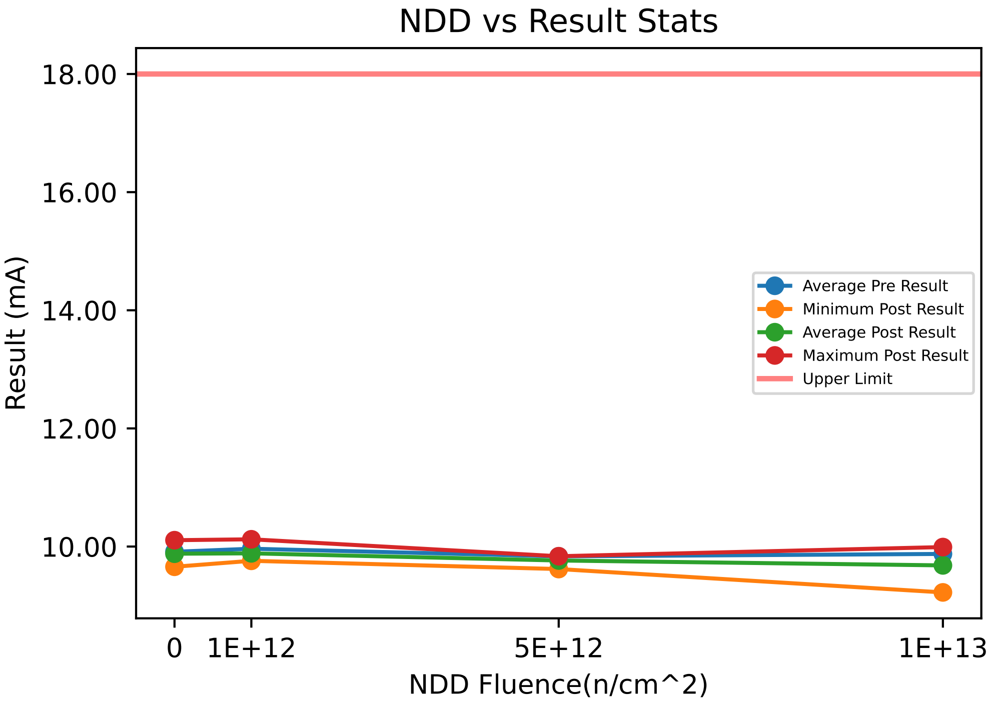
Test Results (Upper Limit = 15.0 (mA))

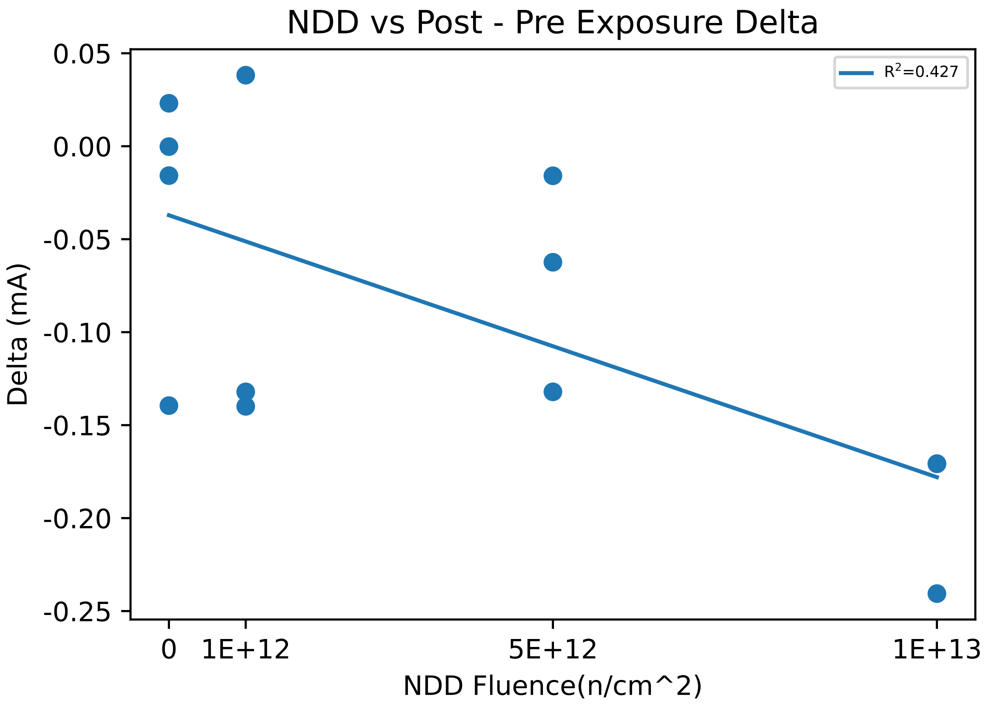
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	9.9722	9.9699	-0.0023
65	1e+12	NDD unbiased	9.5364	9.5411	0.0047
66	1e+12	NDD unbiased	9.537	9.5497	0.0127
67	1e+13	NDD unbiased	9.1113	9.0479	-0.0634
68	1e+13	NDD unbiased	9.7566	9.761	0.0044
70	1e+13	NDD unbiased	9.6958	9.6714	-0.0244
71	5e+12	NDD unbiased	9.6651	9.6274	-0.0377
72	5e+12	NDD unbiased	9.7601	9.7281	-0.032
73	5e+12	NDD unbiased	9.46	9.5132	0.0532
187	0	Correlation	9.5257	9.5302	0.0045
188	0	Correlation	9.9714	9.9689	-0.0025
189	0	Correlation	9.4802	9.4848	0.0046
190	0	Correlation	10.021	10.017	-0.0034

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	9.4802	9.7494	10.021	0.28594	9.4848	9.7502	10.017	0.2816	-0.0034	0.0008	0.0046	0.0043459
1e+12	9.5364	9.6819	9.9722	0.25144	9.5411	9.6869	9.9699	0.24512	-0.0023	0.0050333	0.0127	0.0075056
5e+12	9.46	9.6284	9.7601	0.15338	9.5132	9.6229	9.7281	0.10752	-0.0377	-0.0055	0.0532	0.050916
1e+13	9.1113	9.5212	9.7566	0.35631	9.0479	9.4934	9.761	0.38844	-0.0634	-0.0278	0.0044	0.034028

Device Test: 11.13 I_GND_1A(IGND|SUPPLY/IN/2.25/1.1/7/1000//@I_GND_1A)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

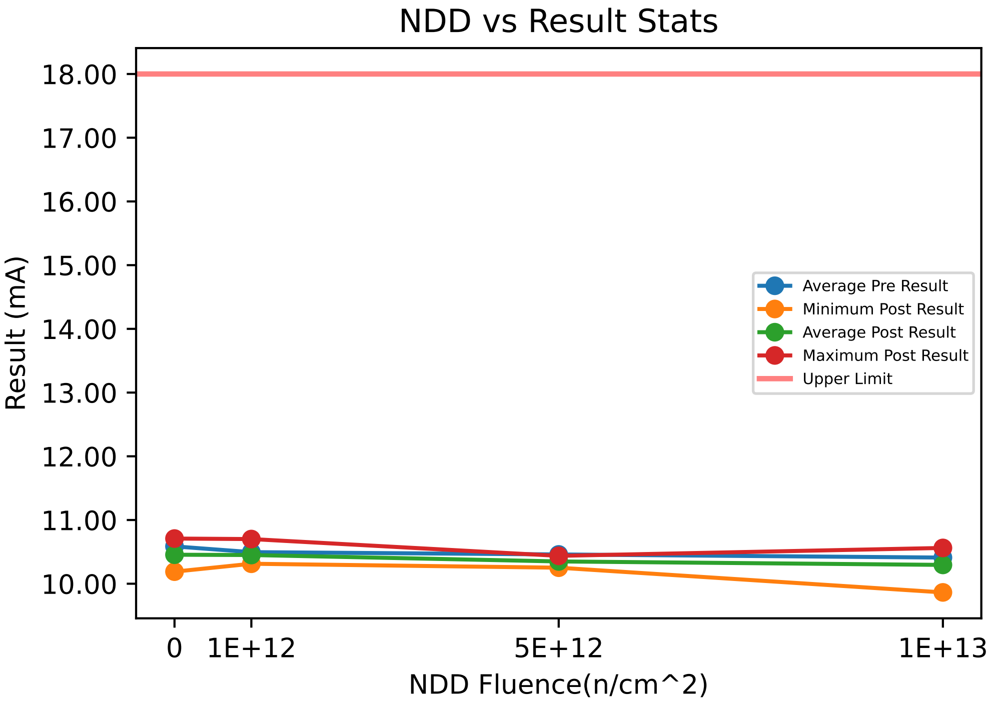
Test Results (Upper Limit = 18.0 (mA))

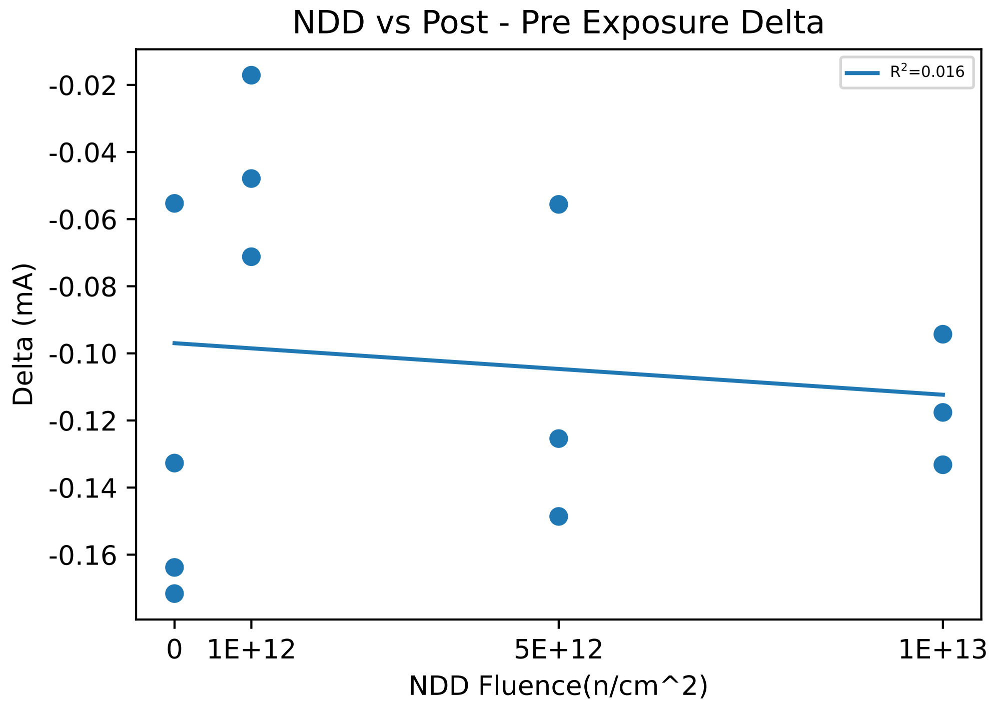
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	10.255	10.123	-0.1321
65	1e+12	NDD unbiased	9.7357	9.7739	0.0382
66	1e+12	NDD unbiased	9.8984	9.7585	-0.1399
67	1e+13	NDD unbiased	9.4643	9.2237	-0.2406
68	1e+13	NDD unbiased	10.162	9.991	-0.1708
70	1e+13	NDD unbiased	9.999	9.8283	-0.1707
71	5e+12	NDD unbiased	9.8519	9.836	-0.0159
72	5e+12	NDD unbiased	9.9681	9.836	-0.1321
73	5e+12	NDD unbiased	9.6815	9.6191	-0.0624
187	0	Correlation	9.7199	9.743	0.0231
188	0	Correlation	10.107	10.107	-0.0002
189	0	Correlation	9.6735	9.6577	-0.0158
190	0	Correlation	10.146	10.007	-0.1395

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	9.6735	9.9118	10.146	0.24954	9.6577	9.8787	10.107	0.21282	-0.1395	-0.0331	0.0231	0.072712
1e+12	9.7357	9.963	10.255	0.26556	9.7585	9.8851	10.123	0.20603	-0.1399	-0.077933	0.0382	0.10065
5e+12	9.6815	9.8338	9.9681	0.14415	9.6191	9.7637	9.836	0.12523	-0.1321	-0.070133	-0.0159	0.058485
1e+13	9.4643	9.875	10.162	0.3649	9.2237	9.681	9.991	0.4043	-0.2406	-0.19403	-0.1707	0.040328

Device Test: 11.14 I_GND_1A(IGND|SUPPLY/IN/3/2.25/7/1000//@I_GND_1A)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

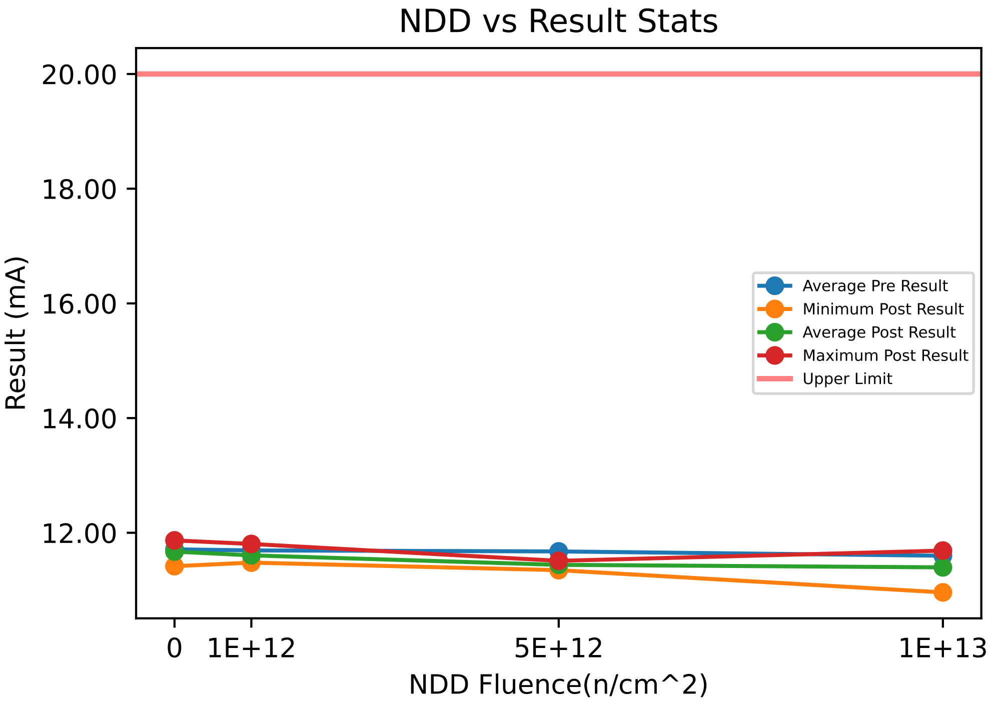
Test Results (Upper Limit = 18.0 (mA))

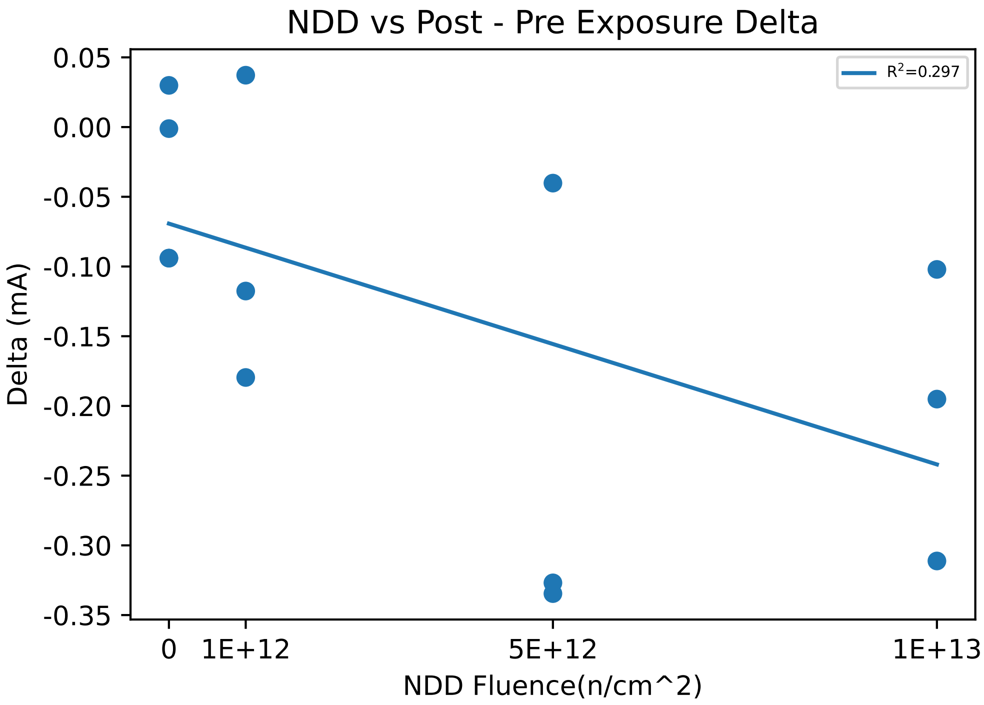
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	10.749	10.701	-0.0479
65	1e+12	NDD unbiased	10.354	10.337	-0.0171
66	1e+12	NDD unbiased	10.385	10.314	-0.0712
67	1e+13	NDD unbiased	9.9971	9.8639	-0.1332
68	1e+13	NDD unbiased	10.679	10.562	-0.1176
70	1e+13	NDD unbiased	10.555	10.461	-0.0943
71	5e+12	NDD unbiased	10.486	10.36	-0.1254
72	5e+12	NDD unbiased	10.586	10.438	-0.1486
73	5e+12	NDD unbiased	10.307	10.252	-0.0556
187	0	Correlation	10.454	10.283	-0.1716
188	0	Correlation	10.764	10.709	-0.0553
189	0	Correlation	10.353	10.19	-0.1638
190	0	Correlation	10.772	10.639	-0.1327

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	10.353	10.586	10.772	0.21435	10.19	10.455	10.709	0.2573	-0.1716	-0.13085	-0.0553	0.053096
1e+12	10.354	10.496	10.749	0.21977	10.314	10.45	10.701	0.21736	-0.0712	-0.0454	-0.0171	0.027137
5e+12	10.307	10.46	10.586	0.14129	10.252	10.35	10.438	0.09343	-0.1486	-0.10987	-0.0556	0.048407
1e+13	9.9971	10.411	10.679	0.36338	9.8639	10.295	10.562	0.37716	-0.1332	-0.11503	-0.0943	0.019577

Device Test: 11.15 I_GND_2A(IGND|SUPPLY/IN/3/2.25/7/2000//@I_GND_2A)





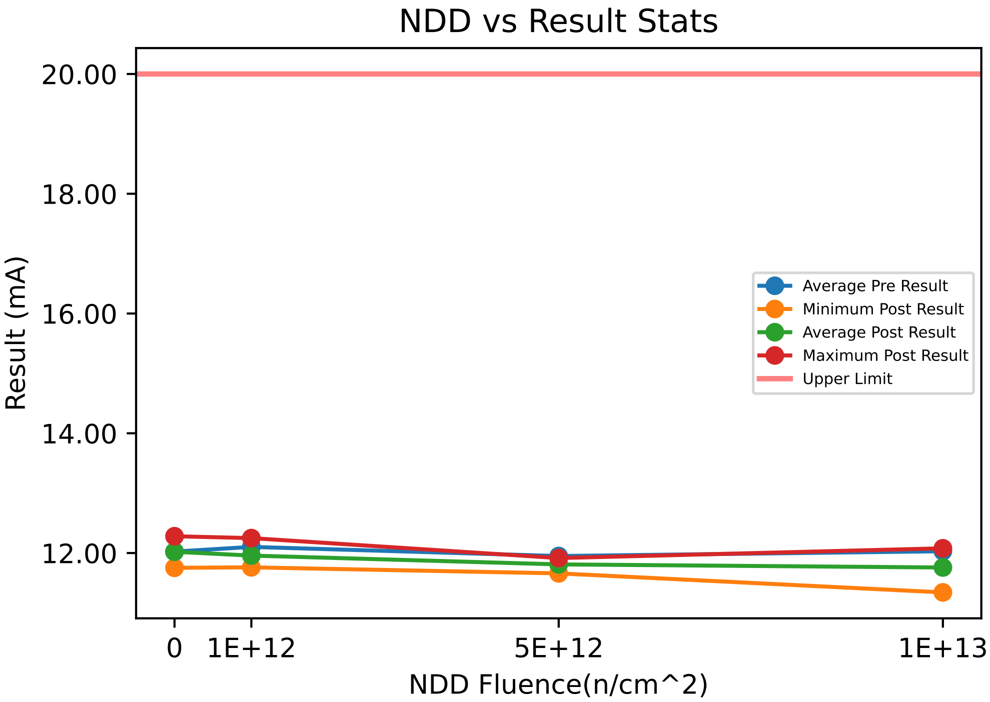
Test Results (Upper Limit = 20.0 (mA))

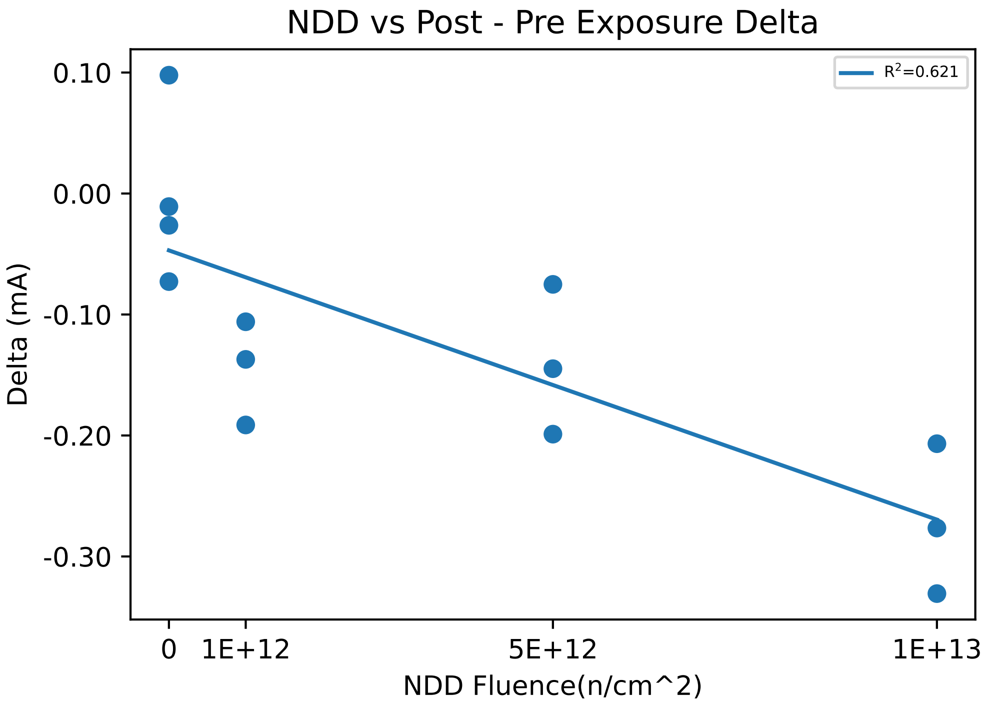
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	11.985	11.805	-0.1796
65	1e+12	NDD unbiased	11.442	11.479	0.0372
66	1e+12	NDD unbiased	11.651	11.534	-0.1176
67	1e+13	NDD unbiased	11.155	10.96	-0.1951
68	1e+13	NDD unbiased	11.791	11.689	-0.1021
70	1e+13	NDD unbiased	11.853	11.542	-0.3112
71	5e+12	NDD unbiased	11.791	11.464	-0.3269
72	5e+12	NDD unbiased	11.845	11.511	-0.3346
73	5e+12	NDD unbiased	11.388	11.348	-0.0402
187	0	Correlation	11.512	11.542	0.0299
188	0	Correlation	11.961	11.867	-0.094
189	0	Correlation	11.419	11.418	-0.0011
190	0	Correlation	11.953	11.859	-0.094

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	11.419	11.711	11.961	0.28663	11.418	11.671	11.867	0.22723	-0.094	-0.0398	0.0299	0.063852
1e+12	11.442	11.693	11.985	0.27356	11.479	11.606	11.805	0.17444	-0.1796	-0.086667	0.0372	0.11166
5e+12	11.388	11.675	11.845	0.24974	11.348	11.441	11.511	0.083801	-0.3346	-0.2339	-0.0402	0.16779
1e+13	11.155	11.6	11.853	0.38604	10.96	11.397	11.689	0.38524	-0.3112	-0.2028	-0.1021	0.10476

Device Test: 11.16 I_GND_2A(IGND|SUPPLY/IN/5/3.3/7/2000//@I_GND_2A)





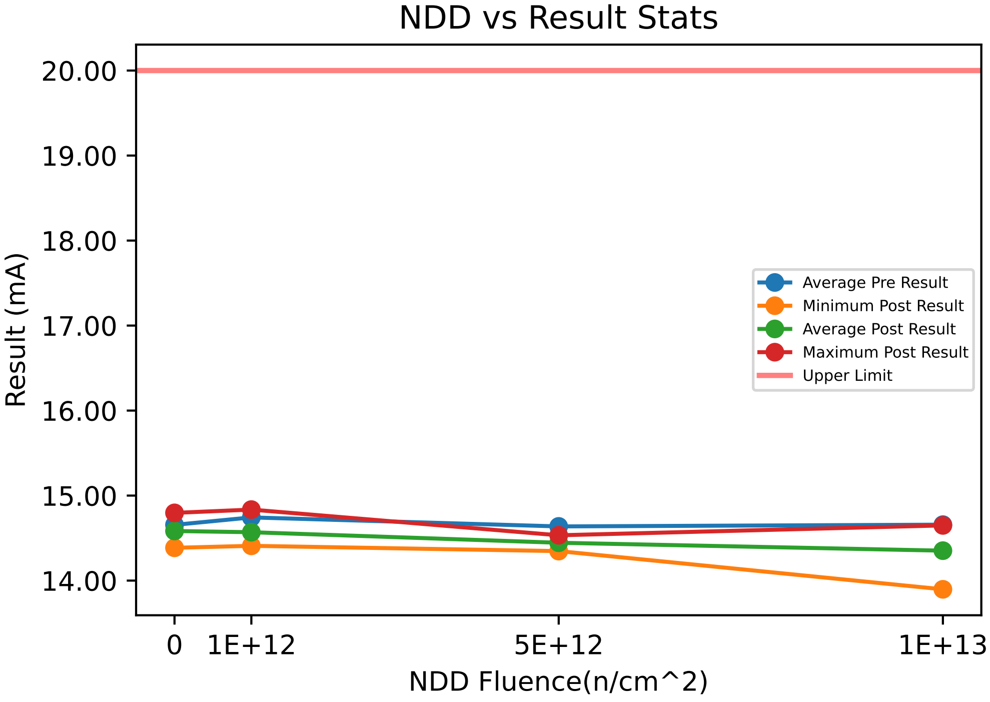
Test Results (Upper Limit = 20.0 (mA))

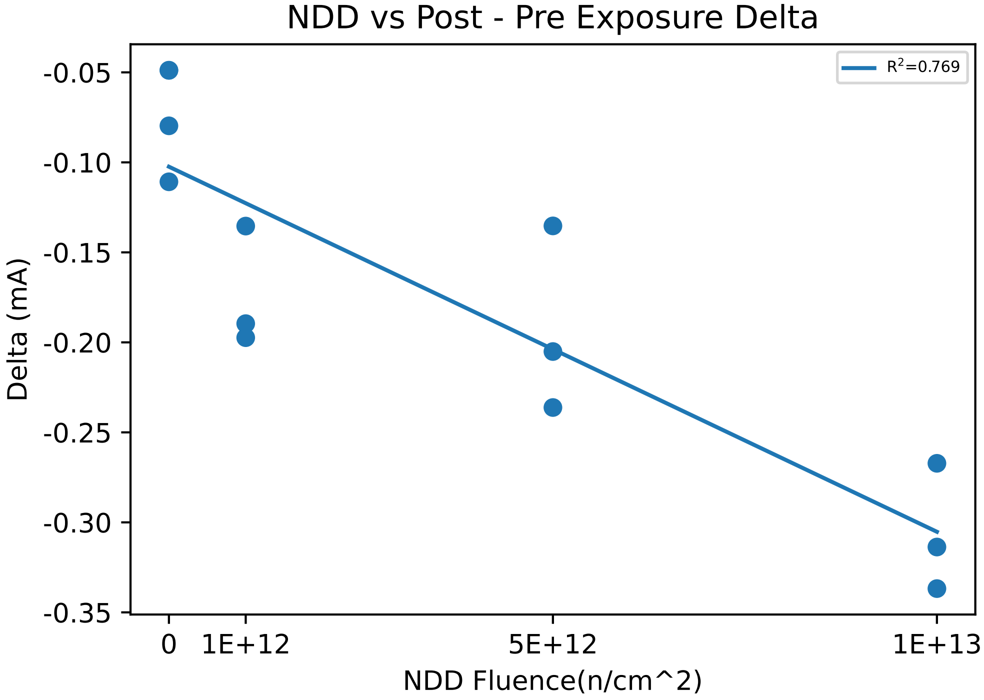
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	12.355	12.249	-0.106
65	1e+12	NDD unbiased	11.898	11.761	-0.1371
66	1e+12	NDD unbiased	12.053	11.862	-0.1913
67	1e+13	NDD unbiased	11.549	11.342	-0.2068
68	1e+13	NDD unbiased	12.355	12.079	-0.2765
70	1e+13	NDD unbiased	12.185	11.854	-0.3307
71	5e+12	NDD unbiased	11.999	11.854	-0.1448
72	5e+12	NDD unbiased	12.115	11.916	-0.1989
73	5e+12	NDD unbiased	11.735	11.66	-0.0751
187	0	Correlation	11.911	11.9	-0.0108
188	0	Correlation	12.353	12.28	-0.0728
189	0	Correlation	11.78	11.753	-0.0263
190	0	Correlation	12.051	12.149	0.0978

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	11.78	12.024	12.353	0.24593	11.753	12.021	12.28	0.23784	-0.0728	-0.003025	0.0978	0.072195
1e+12	11.898	12.102	12.355	0.23252	11.761	11.957	12.249	0.2578	-0.1913	-0.1448	-0.106	0.043168
5e+12	11.735	11.95	12.115	0.1945	11.66	11.81	11.916	0.13342	-0.1989	-0.1396	-0.0751	0.062064
1e+13	11.549	12.03	12.355	0.42477	11.342	11.758	12.079	0.37735	-0.3307	-0.27133	-0.2068	0.062111

Device Test: 11.17 I_GND_2A(IGND|SUPPLY/IN/14/13.3/7/2000//@I_GND_2A)





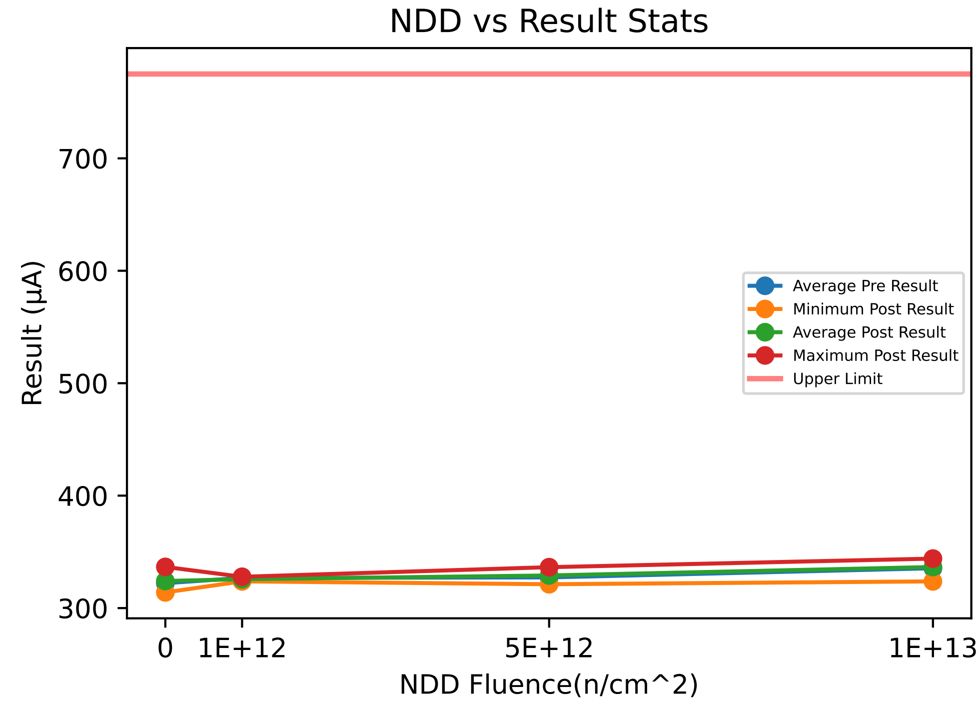
Test Results (Upper Limit = 20.0 (mA))

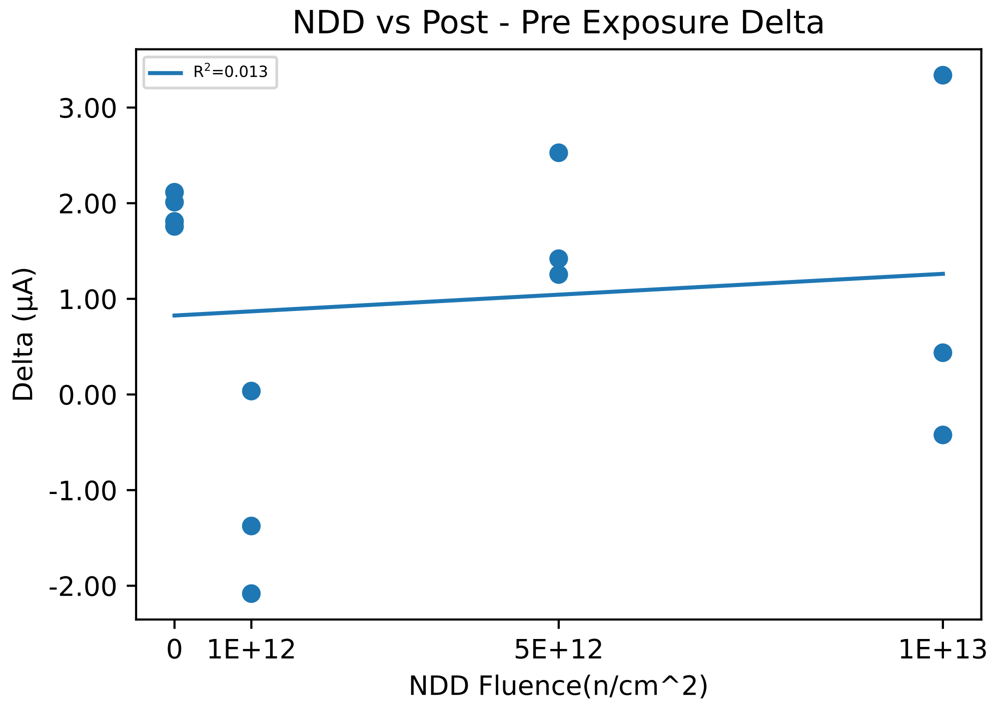
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	15.033	14.835	-0.1974
65	1e+12	NDD unbiased	14.544	14.409	-0.1354
66	1e+12	NDD unbiased	14.653	14.463	-0.1896
67	1e+13	NDD unbiased	14.165	13.897	-0.2672
68	1e+13	NDD unbiased	14.963	14.649	-0.3137
70	1e+13	NDD unbiased	14.847	14.51	-0.3368
71	5e+12	NDD unbiased	14.692	14.455	-0.2362
72	5e+12	NDD unbiased	14.738	14.533	-0.2051
73	5e+12	NDD unbiased	14.482	14.347	-0.1353
187	0	Correlation	14.489	14.44	-0.0489
188	0	Correlation	14.907	14.797	-0.1108
189	0	Correlation	14.435	14.386	-0.0488
190	0	Correlation	14.791	14.711	-0.0797

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	14.435	14.655	14.907	0.22978	14.386	14.583	14.797	0.2012	-0.1108	-0.07205	-0.0488	0.029646
1e+12	14.544	14.743	15.033	0.25635	14.409	14.569	14.835	0.23199	-0.1974	-0.17413	-0.1354	0.03377
5e+12	14.482	14.637	14.738	0.1362	14.347	14.445	14.533	0.093372	-0.2362	-0.1922	-0.1353	0.051672
1e+13	14.165	14.658	14.963	0.43124	13.897	14.352	14.649	0.39991	-0.3368	-0.3059	-0.2672	0.03545

Device Test: 11.2 I_SHDN(ISHDN|SUPPLY/IN/3.3//0/0//@I_SHDN)





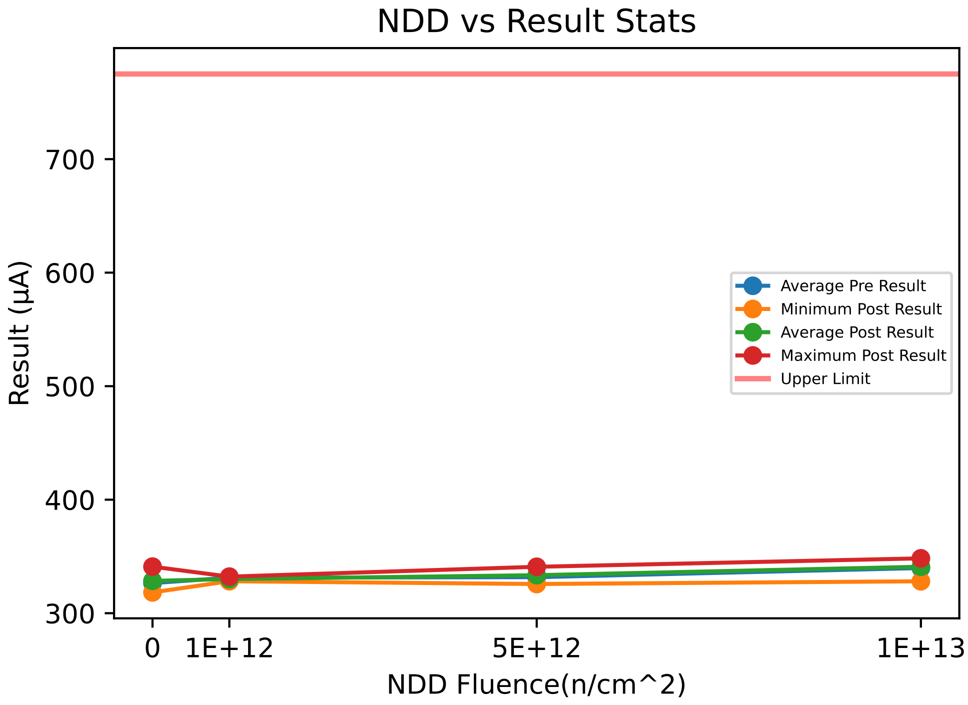
Test Results (Upper Limit = 775.0 (µA))

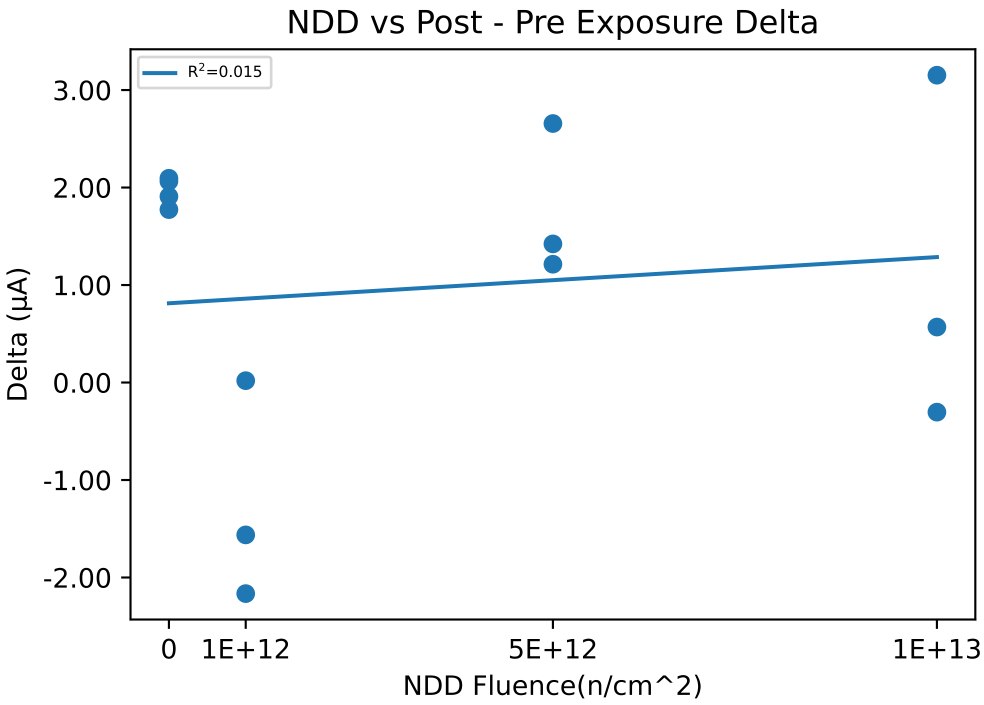
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	329.21	327.84	-1.3751
65	1e+12	NDD unbiased	323.73	323.77	0.0358
66	1e+12	NDD unbiased	327.54	325.46	-2.082
67	1e+13	NDD unbiased	340.67	344	3.3384
68	1e+13	NDD unbiased	324.16	323.74	-0.4231
70	1e+13	NDD unbiased	341.38	341.82	0.4366
71	5e+12	NDD unbiased	333.85	336.38	2.5274
72	5e+12	NDD unbiased	328.01	329.43	1.4199
73	5e+12	NDD unbiased	319.96	321.21	1.2542
187	0	Correlation	321.44	323.2	1.7571
188	0	Correlation	334.49	336.61	2.1148
189	0	Correlation	320.55	322.56	2.011
190	0	Correlation	312.14	313.95	1.8101

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	312.14	322.15	334.49	9.2318	313.95	324.08	336.61	9.3579	1.7571	1.9232	2.1148	0.16813
1e+12	323.73	326.83	329.21	2.809	323.77	325.69	327.84	2.0446	-2.082	-1.1404	0.0358	1.0782
5e+12	319.96	327.27	333.85	6.9781	321.21	329.01	336.38	7.5943	1.2542	1.7338	2.5274	0.69222
1e+13	324.16	335.4	341.38	9.7399	323.74	336.52	344	11.121	-0.4231	1.1173	3.3384	1.971

Device Test: 11.3 I_SHDN(ISHDN|SUPPLY/IN/5//0/0//@I_SHDN)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

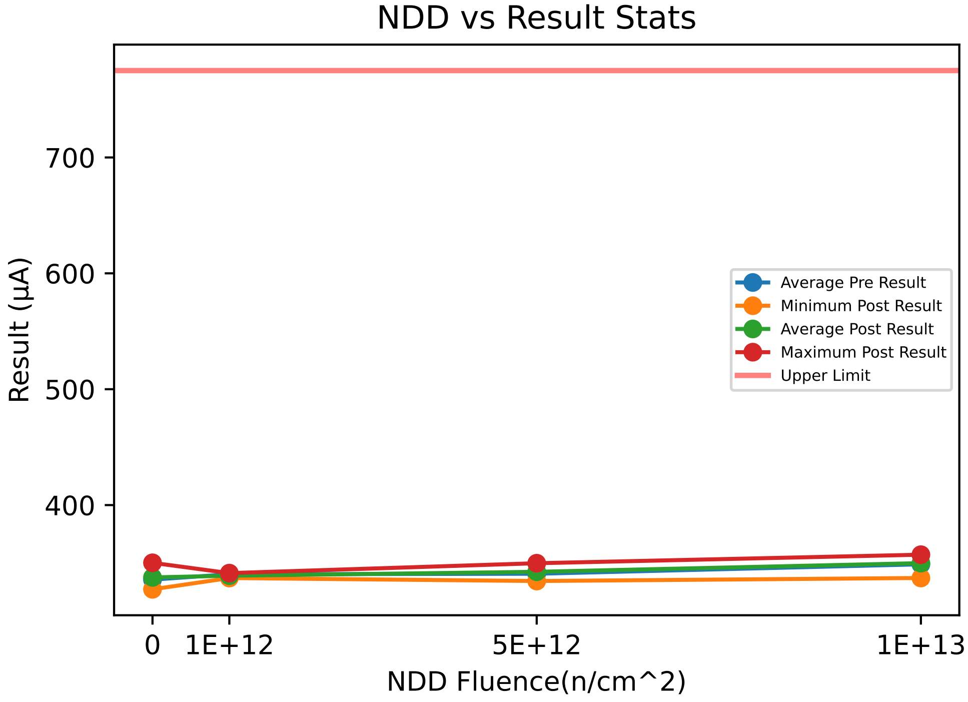
Test Results (Upper Limit = 775.0 (µA))

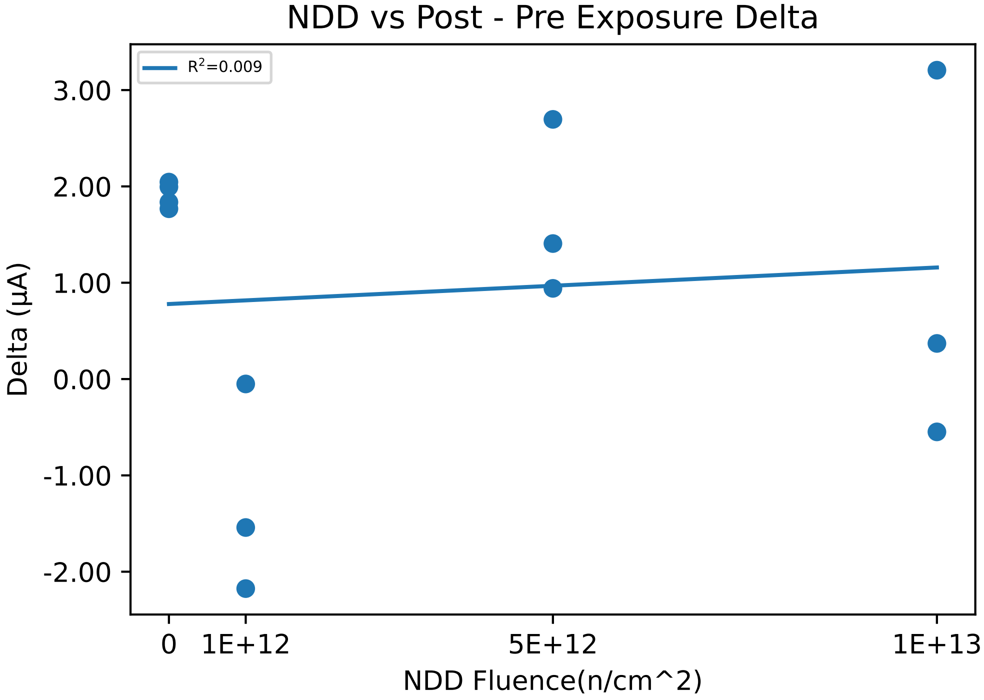
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	333.76	332.2	-1.5629
65	1e+12	NDD unbiased	328.15	328.17	0.019
66	1e+12	NDD unbiased	331.96	329.8	-2.1651
67	1e+13	NDD unbiased	345.17	348.33	3.1523
68	1e+13	NDD unbiased	328.42	328.12	-0.3038
70	1e+13	NDD unbiased	345.77	346.34	0.5691
71	5e+12	NDD unbiased	338.23	340.89	2.6566
72	5e+12	NDD unbiased	332.45	333.87	1.4218
73	5e+12	NDD unbiased	324.5	325.72	1.2134
187	0	Correlation	325.96	327.73	1.7736
188	0	Correlation	338.95	341.02	2.0642
189	0	Correlation	324.77	326.86	2.0951
190	0	Correlation	316.42	318.33	1.9081

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	316.42	326.52	338.95	9.3107	318.33	328.48	341.02	9.3721	1.7736	1.9603	2.0951	0.14894
1e+12	328.15	331.29	333.76	2.8665	328.17	330.06	332.2	2.0279	-2.1651	-1.2363	0.019	1.1281
5e+12	324.5	331.73	338.23	6.8913	325.72	333.49	340.89	7.5917	1.2134	1.7639	2.6566	0.78006
1e+13	328.42	339.79	345.77	9.8491	328.12	340.93	348.33	11.139	-0.3038	1.1392	3.1523	1.7972

Device Test: 11.4 I_SHDN(ISHDN|SUPPLY/IN/7//0/0//@I_SHDN)





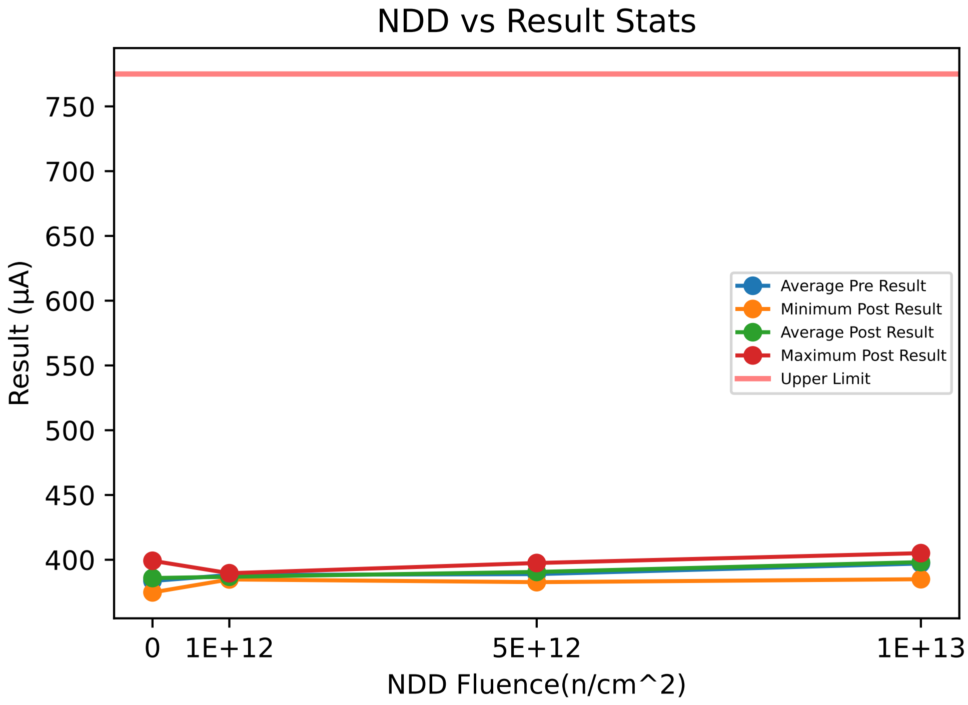
Test Results (Upper Limit = 775.0 (μA))

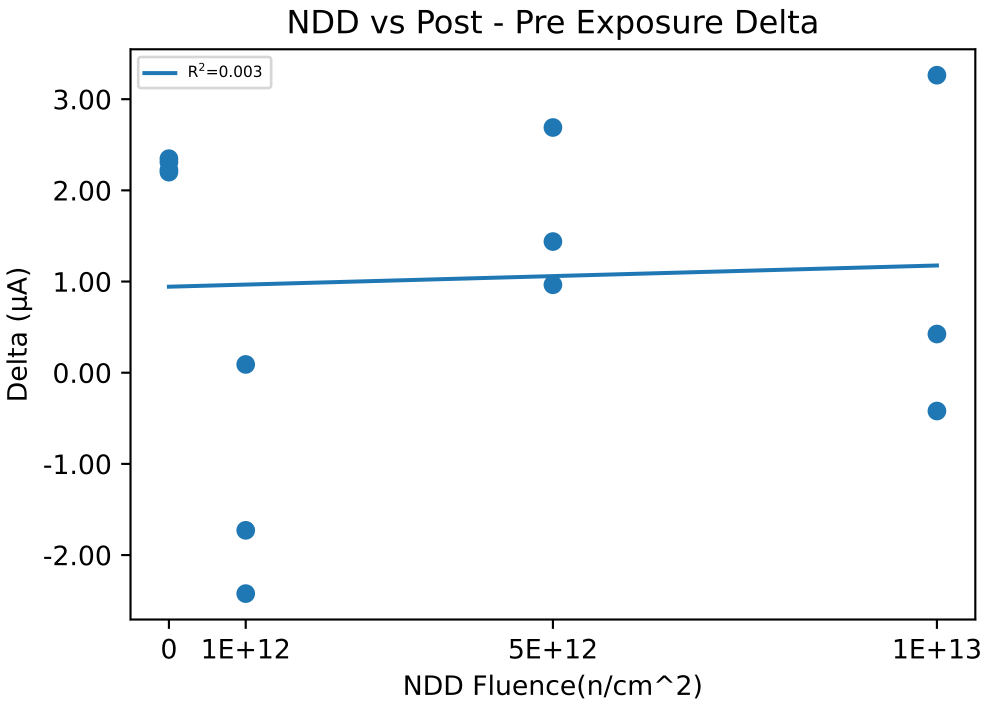
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	342.82	341.28	-1.5412
65	1e+12	NDD unbiased	337.09	337.04	-0.0509
66	1e+12	NDD unbiased	340.98	338.81	-2.1753
67	1e+13	NDD unbiased	353.98	357.19	3.2063
68	1e+13	NDD unbiased	337.64	337.09	-0.5483
70	1e+13	NDD unbiased	355.05	355.42	0.3698
71	5e+12	NDD unbiased	347.13	349.82	2.6957
72	5e+12	NDD unbiased	341.55	342.95	1.4067
73	5e+12	NDD unbiased	333.53	334.48	0.9415
187	0	Correlation	335.13	336.97	1.8357
188	0	Correlation	348.14	350.18	2.0448
189	0	Correlation	333.88	335.87	1.9945
190	0	Correlation	325.54	327.31	1.768

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	325.54	335.67	348.14	9.3384	327.31	337.58	350.18	9.4461	1.768	1.9107	2.0448	0.13038
1e+12	337.09	340.3	342.82	2.9274	337.04	339.04	341.28	2.1315	-2.1753	-1.2558	-0.0509	1.0906
5e+12	333.53	340.74	347.13	6.8323	334.48	342.42	349.82	7.6872	0.9415	1.6813	2.6957	0.90877
1e+13	337.64	348.89	355.05	9.761	337.09	349.9	357.19	11.13	-0.5483	1.0093	3.2063	1.9573

Device Test: 11.5 I_SHDN(ISHDN|SUPPLY/IN/12//0/0//@I_SHDN)





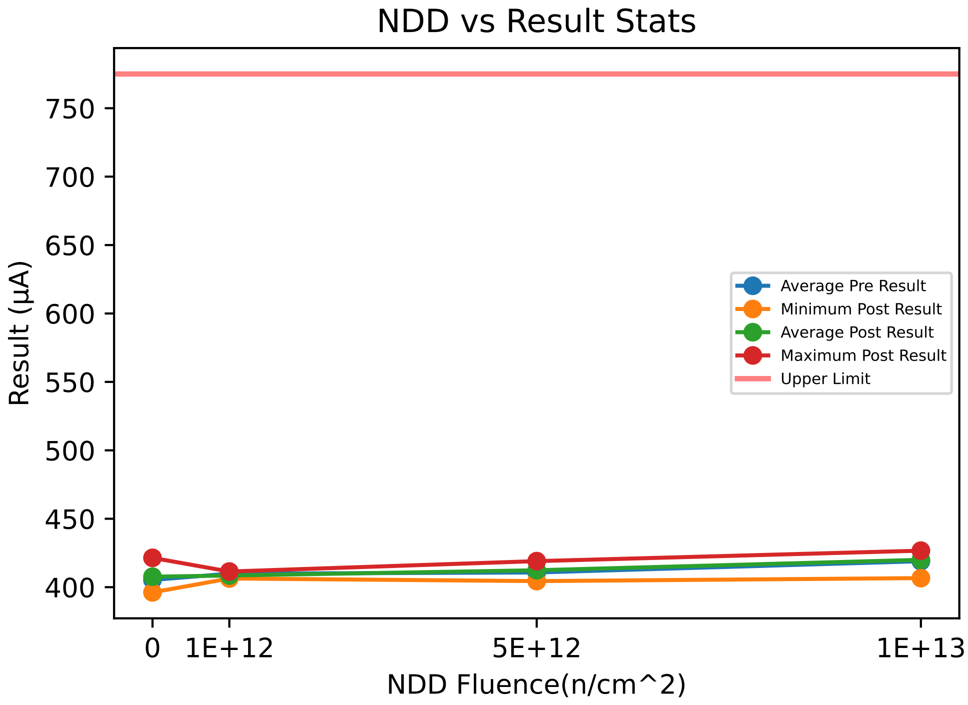
Test Results (Upper Limit = 775.0 (µA))

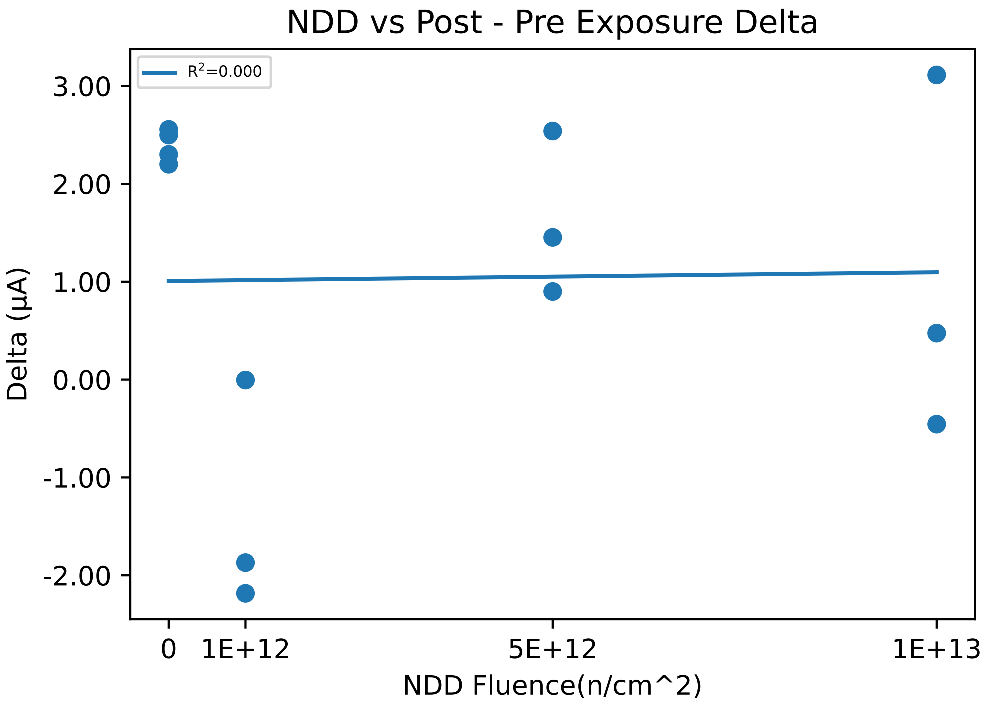
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	391.34	389.61	-1.7286
65	1e+12	NDD unbiased	384.72	384.82	0.0907
66	1e+12	NDD unbiased	388.63	386.21	-2.4226
67	1e+13	NDD unbiased	401.85	405.11	3.2631
68	1e+13	NDD unbiased	385.4	384.98	-0.4201
70	1e+13	NDD unbiased	404.06	404.48	0.4244
71	5e+12	NDD unbiased	394.81	397.5	2.6895
72	5e+12	NDD unbiased	390.18	391.62	1.4386
73	5e+12	NDD unbiased	381.74	382.7	0.9645
187	0	Correlation	383.93	386.13	2.1997
188	0	Correlation	396.86	399.21	2.3476
189	0	Correlation	381.16	383.47	2.3094
190	0	Correlation	372.58	374.8	2.224

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	372.58	383.63	396.86	10.056	374.8	385.9	399.21	10.103	2.1997	2.2702	2.3476	0.069838
1e+12	384.72	388.23	391.34	3.3241	384.82	386.88	389.61	2.4648	-2.4226	-1.3535	0.0907	1.298
5e+12	381.74	388.91	394.81	6.627	382.7	390.61	397.5	7.449	0.9645	1.6975	2.6895	0.89117
1e+13	385.4	397.1	404.06	10.198	384.98	398.19	405.11	11.449	-0.4201	1.0891	3.2631	1.9295

Device Test: 11.6 I_SHDN(ISHDN|SUPPLY/IN/14//0/0//@I_SHDN)





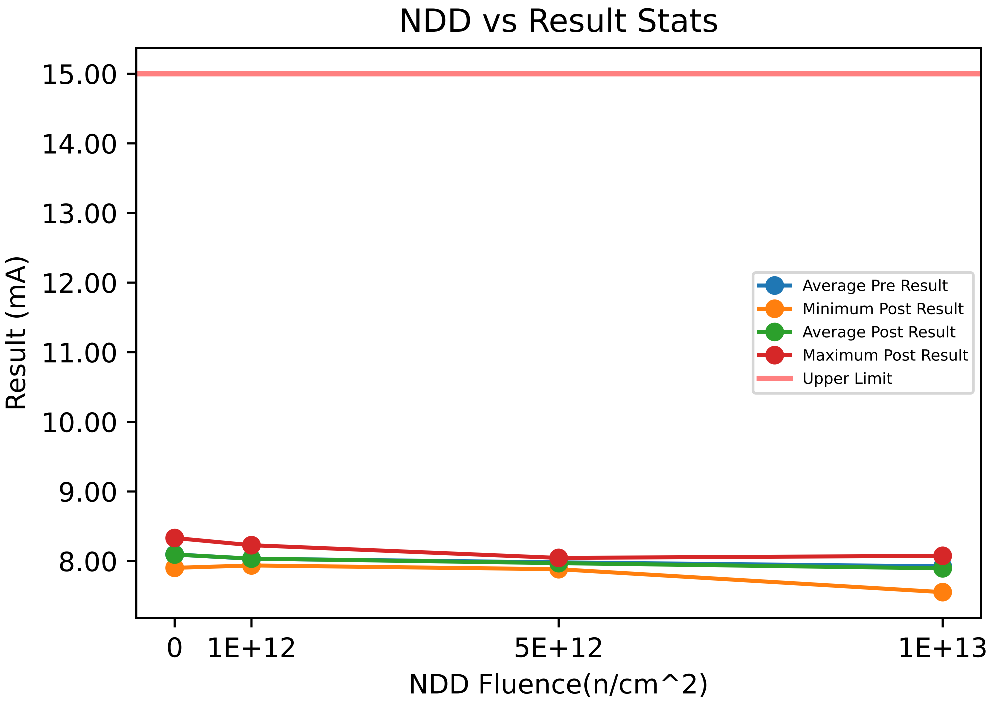
Test Results (Upper Limit = 775.0 (μA))

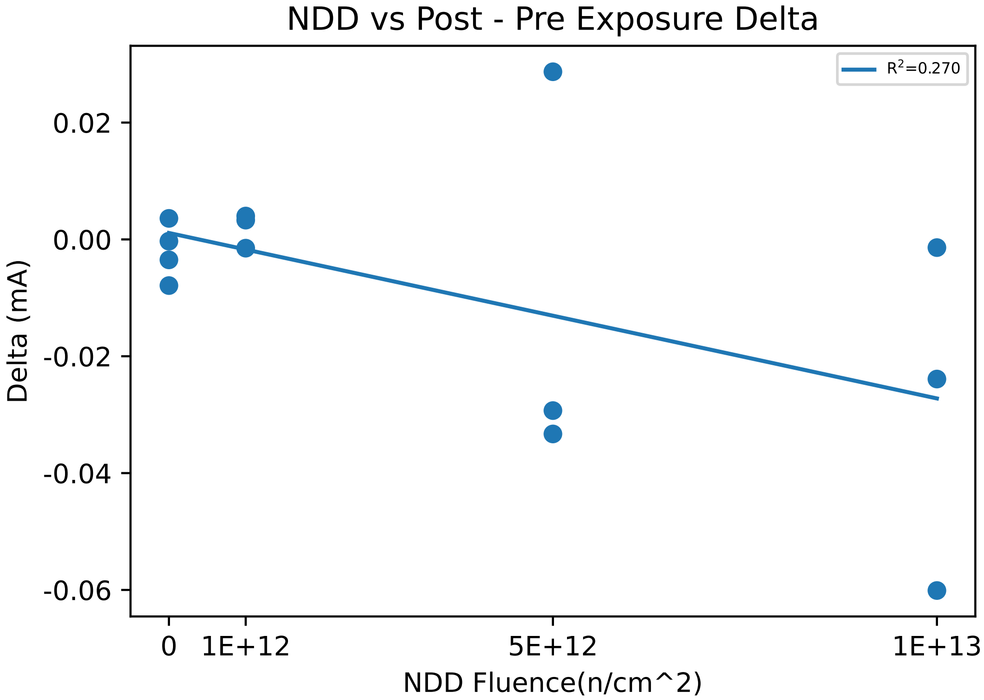
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	413.31	411.44	-1.8702
65	1e+12	NDD unbiased	406.35	406.34	-0.0049
66	1e+12	NDD unbiased	409.96	407.77	-2.1842
67	1e+13	NDD unbiased	423.56	426.67	3.1123
68	1e+13	NDD unbiased	407.09	406.64	-0.4556
70	1e+13	NDD unbiased	426.21	426.69	0.4744
71	5e+12	NDD unbiased	416.5	419.04	2.5393
72	5e+12	NDD unbiased	412.17	413.62	1.4527
73	5e+12	NDD unbiased	403.54	404.44	0.8998
187	0	Correlation	405.98	408.18	2.1999
188	0	Correlation	418.88	421.44	2.556
189	0	Correlation	402.38	404.88	2.4981
190	0	Correlation	393.88	396.18	2.3005

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	393.88	405.28	418.88	10.388	396.18	407.67	421.44	10.48	2.1999	2.3886	2.556	0.16672
1e+12	406.35	409.87	413.31	3.4809	406.34	408.52	411.44	2.6276	-2.1842	-1.3531	-0.0049	1.1781
5e+12	403.54	410.74	416.5	6.5938	404.44	412.37	419.04	7.3764	0.8998	1.6306	2.5393	0.8341
1e+13	407.09	418.96	426.21	10.359	406.64	420	426.69	11.572	-0.4556	1.0437	3.1123	1.8508

Device Test: 11.7 I_Q(IQ|SUPPLY/IN/2.25/0.6/7/0//@I_Q)





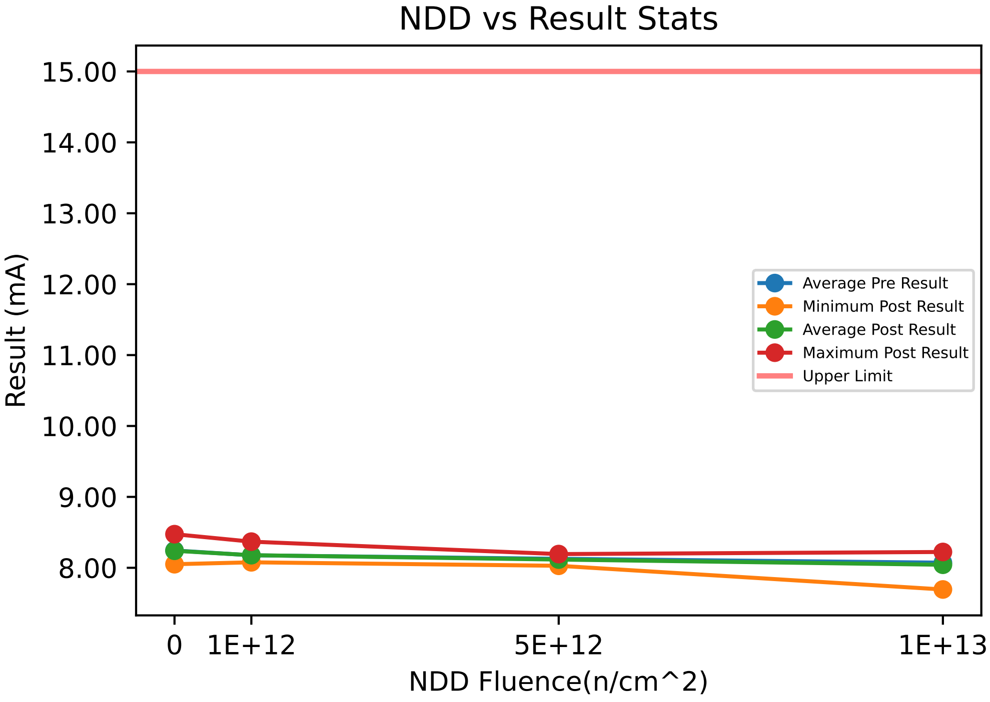
Test Results (Upper Limit = 15.0 (mA))

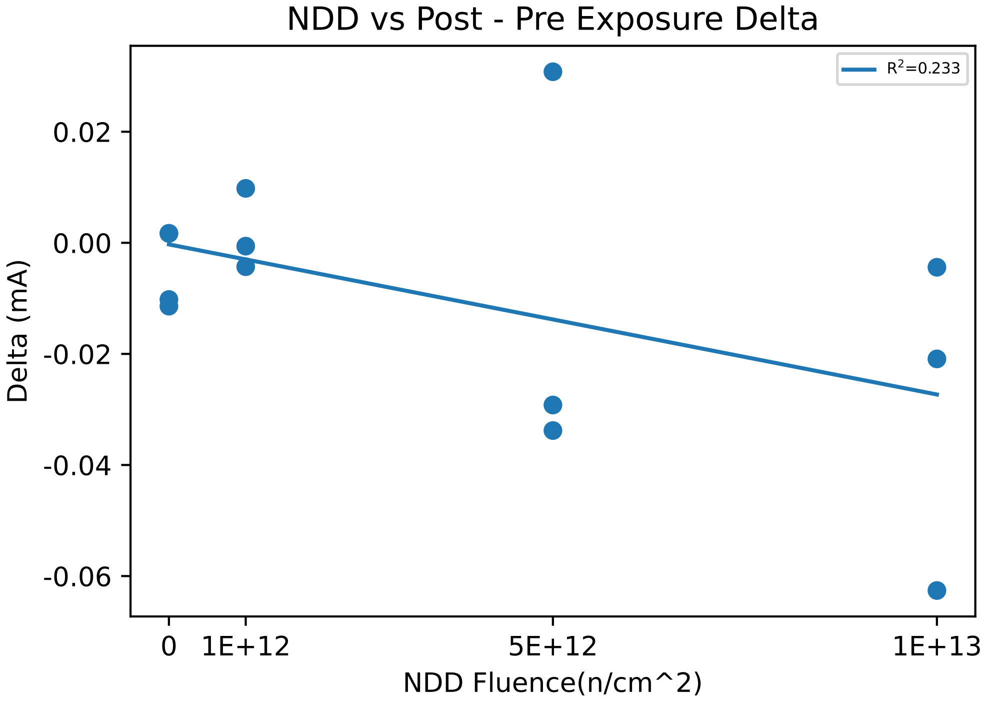
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	8.2252	8.2285	0.0033
65	1e+12	NDD unbiased	7.9394	7.9379	-0.0015
66	1e+12	NDD unbiased	7.9372	7.9412	0.004
67	1e+13	NDD unbiased	7.6143	7.5542	-0.0601
68	1e+13	NDD unbiased	8.0775	8.0761	-0.0014
70	1e+13	NDD unbiased	8.0826	8.0587	-0.0239
71	5e+12	NDD unbiased	8.016	7.9827	-0.0333
72	5e+12	NDD unbiased	8.0753	8.046	-0.0293
73	5e+12	NDD unbiased	7.8549	7.8836	0.0287
187	0	Correlation	7.9327	7.9363	0.0036
188	0	Correlation	8.2132	8.2053	-0.0079
189	0	Correlation	7.9034	7.9031	-0.0003
190	0	Correlation	8.3353	8.3318	-0.0035

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	7.9034	8.0961	8.3353	0.21194	7.9031	8.0941	8.3318	0.20837	-0.0079	-0.002025	0.0036	0.0048754
1e+12	7.9372	8.0339	8.2252	0.16565	7.9379	8.0359	8.2285	0.16683	-0.0015	0.0019333	0.004	0.0029939
5e+12	7.8549	7.9821	8.0753	0.11405	7.8836	7.9708	8.046	0.081855	-0.0333	-0.0113	0.0287	0.034699
1e+13	7.6143	7.9248	8.0826	0.26891	7.5542	7.8963	8.0761	0.29642	-0.0601	-0.028467	-0.0014	0.029615

Device Test: 11.9 I_Q(IQ|SUPPLY/IN/14/0.6/7/0//@I_Q)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

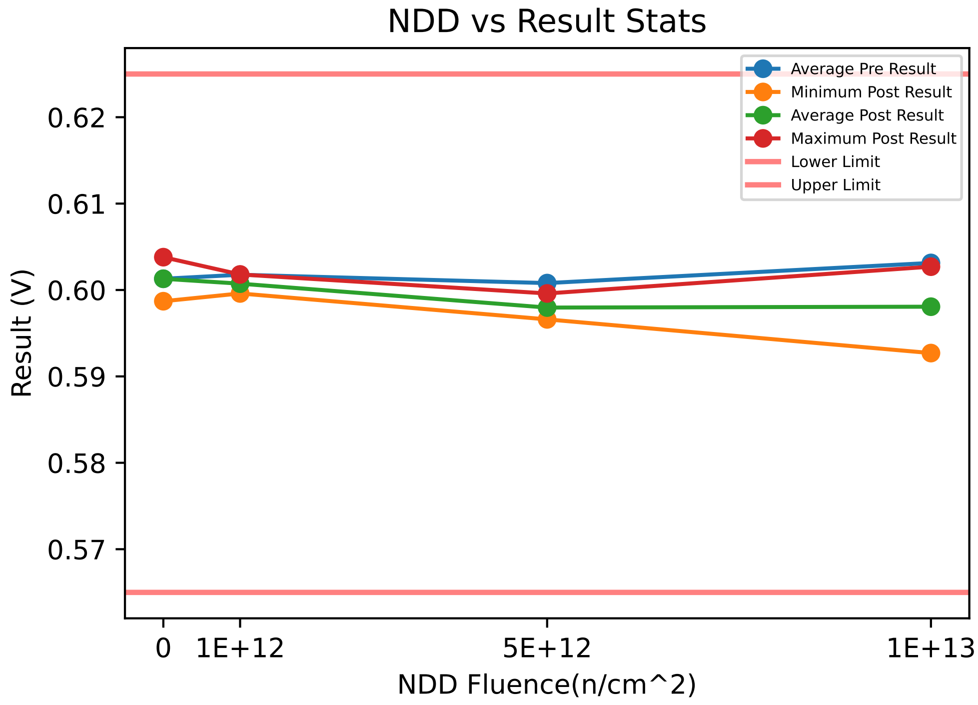
Test Results (Upper Limit = 15.0 (mA))

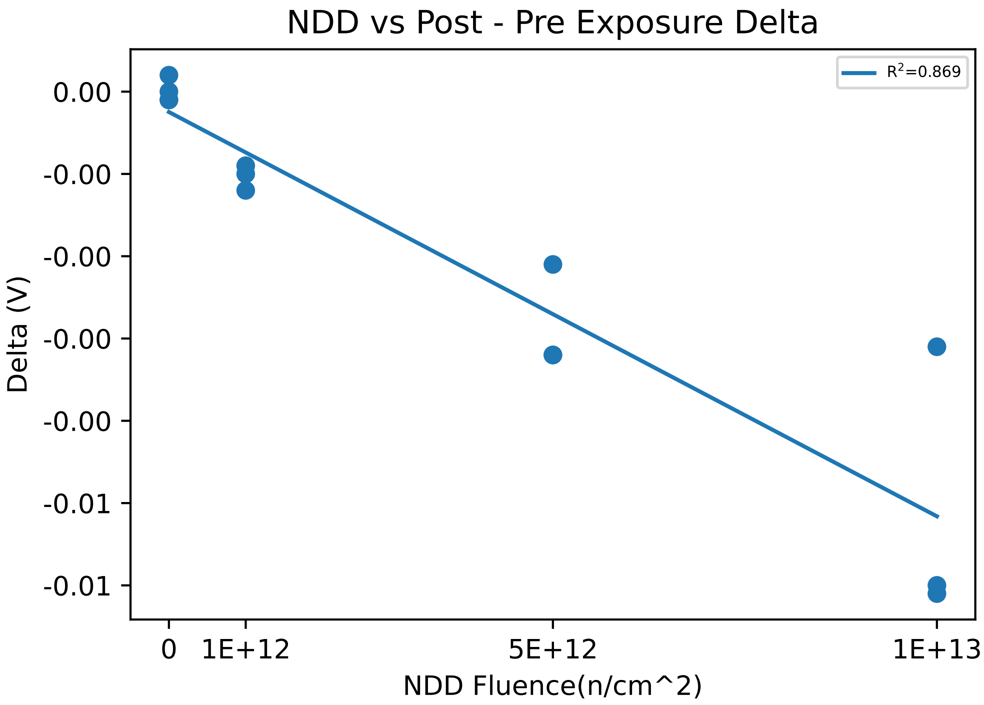
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	8.3693	8.3687	-0.0006
65	1e+12	NDD unbiased	8.0817	8.0774	-0.0043
66	1e+12	NDD unbiased	8.0774	8.0872	0.0098
67	1e+13	NDD unbiased	7.7568	7.6942	-0.0626
68	1e+13	NDD unbiased	8.2275	8.2231	-0.0044
70	1e+13	NDD unbiased	8.2326	8.2117	-0.0209
71	5e+12	NDD unbiased	8.16	8.1262	-0.0338
72	5e+12	NDD unbiased	8.2227	8.1935	-0.0292
73	5e+12	NDD unbiased	7.9976	8.0284	0.0308
187	0	Correlation	8.0832	8.0849	0.0017
188	0	Correlation	8.3619	8.3505	-0.0114
189	0	Correlation	8.0488	8.0505	0.0017
190	0	Correlation	8.4842	8.474	-0.0102

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	8.0488	8.2445	8.4842	0.21257	8.0505	8.24	8.474	0.2057	-0.0114	-0.00455	0.0017	0.0072335
1e+12	8.0774	8.1761	8.3693	0.1673	8.0774	8.1778	8.3687	0.16543	-0.0043	0.0016333	0.0098	0.0073105
5e+12	7.9976	8.1268	8.2227	0.11617	8.0284	8.116	8.1935	0.083018	-0.0338	-0.010733	0.0308	0.036042
1e+13	7.7568	8.0723	8.2326	0.27324	7.6942	8.043	8.2231	0.30212	-0.0626	-0.0293	-0.0044	0.029995

Device Test: 13.1 VIH_EN(THRESHOLD|RISE/EN/2.25/0.6//10//@VIH_EN)





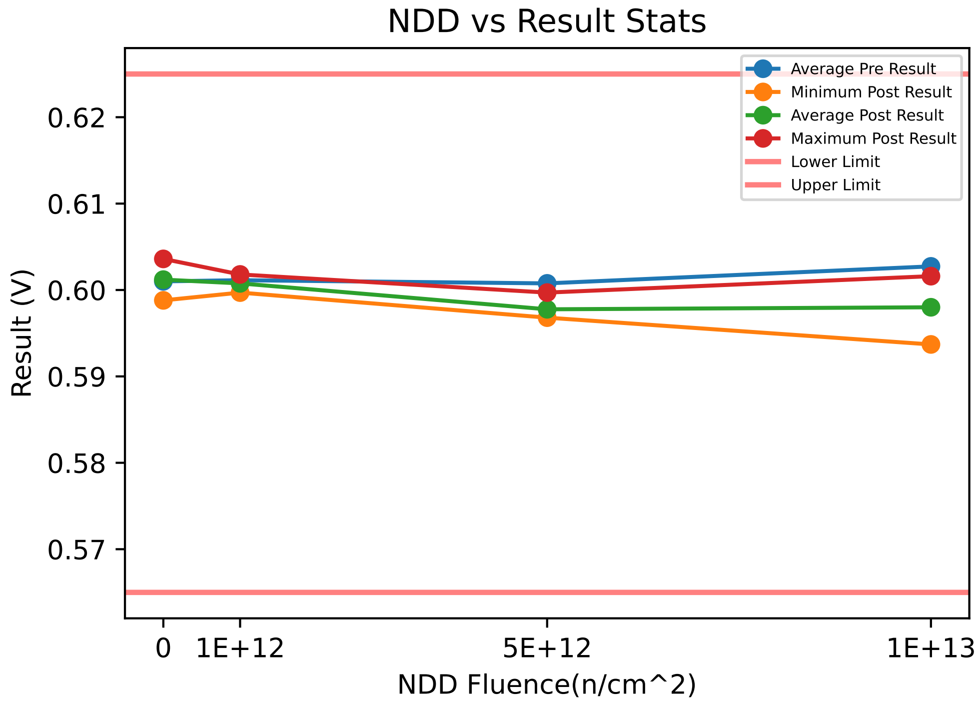
Test Results (Lower Limit = 0.565, Upper Limit = 0.625 (V))

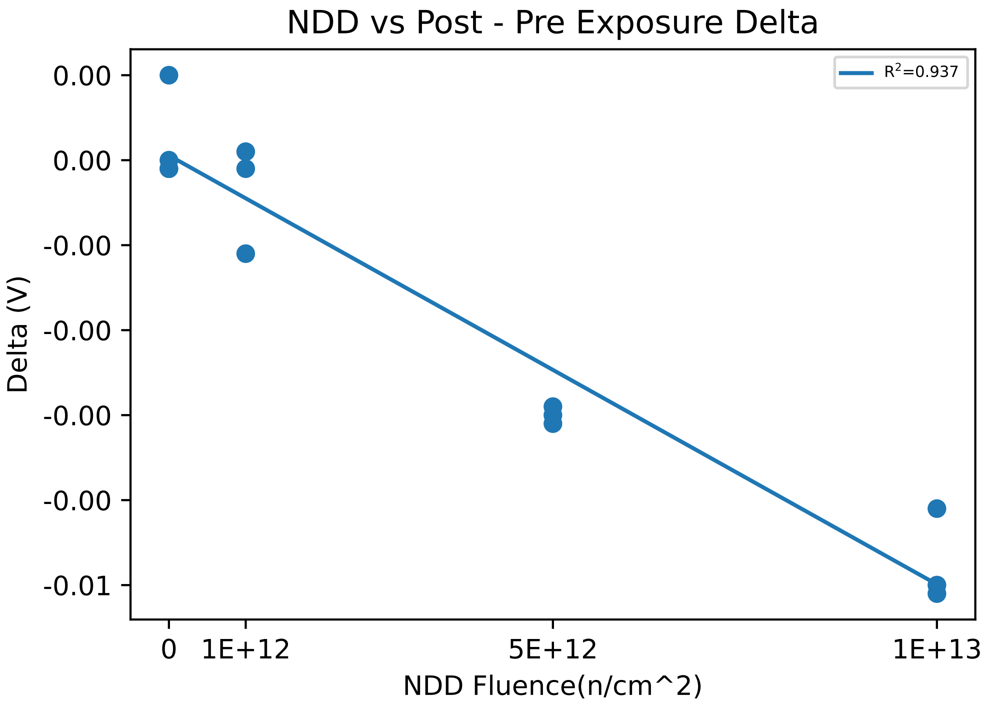
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.6008	0.5996	-0.0012
65	1e+12	NDD unbiased	0.6017	0.6008	-0.0009
66	1e+12	NDD unbiased	0.6028	0.6018	-0.001
67	1e+13	NDD unbiased	0.5988	0.5927	-0.0061
68	1e+13	NDD unbiased	0.6048	0.5988	-0.006
70	1e+13	NDD unbiased	0.6058	0.6027	-0.0031
71	5e+12	NDD unbiased	0.5998	0.5977	-0.0021
72	5e+12	NDD unbiased	0.5998	0.5966	-0.0032
73	5e+12	NDD unbiased	0.6028	0.5996	-0.0032
187	0	Correlation	0.6039	0.6038	-0.0001
188	0	Correlation	0.5989	0.5989	0
189	0	Correlation	0.6036	0.6038	0.0002
190	0	Correlation	0.5988	0.5987	-0.0001

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	0.5988	0.6013	0.6039	0.002832	0.5987	0.6013	0.6038	0.0028879	-0.0001	0	0.0002	0.00014142
1e+12	0.6008	0.60177	0.6028	0.0010017	0.5996	0.60073	0.6018	0.0011015	-0.0012	-0.0010333	-0.0009	0.00015275
5e+12	0.5998	0.6008	0.6028	0.0017321	0.5966	0.59797	0.5996	0.0015177	-0.0032	-0.0028333	-0.0021	0.00063509
1e+13	0.5988	0.60313	0.6058	0.0037859	0.5927	0.59807	0.6027	0.0050402	-0.0061	-0.0050667	-0.0031	0.0017039

Device Test: 13.10 VIH_EN(THRESHOLD|RISE/EN/7/0.6//10//@VIH_EN)





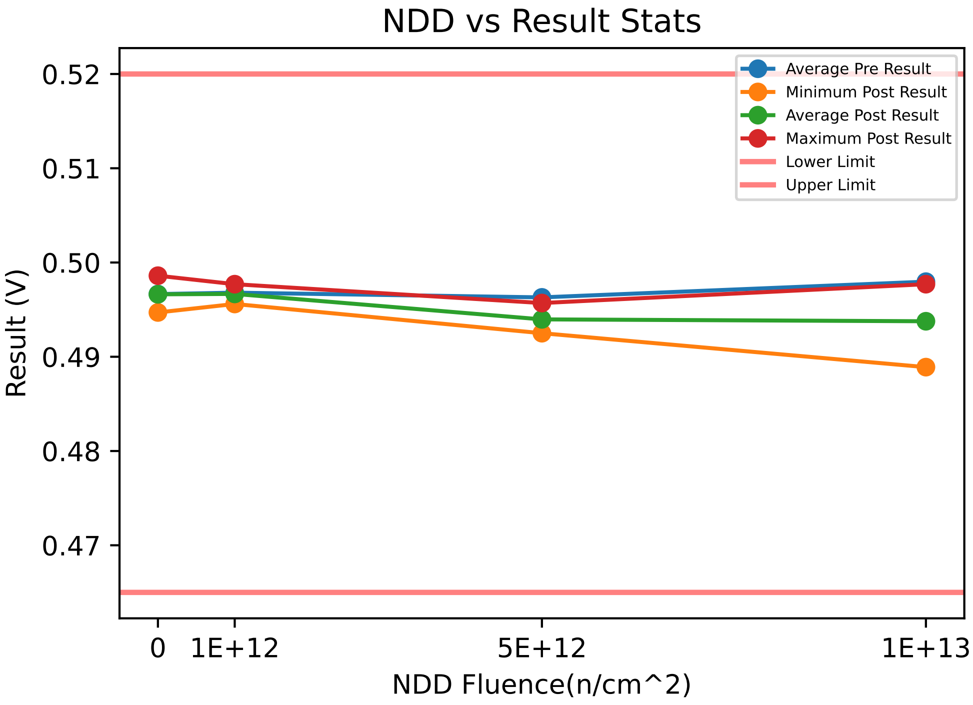
Test Results (Lower Limit = 0.565, Upper Limit = 0.625 (V))

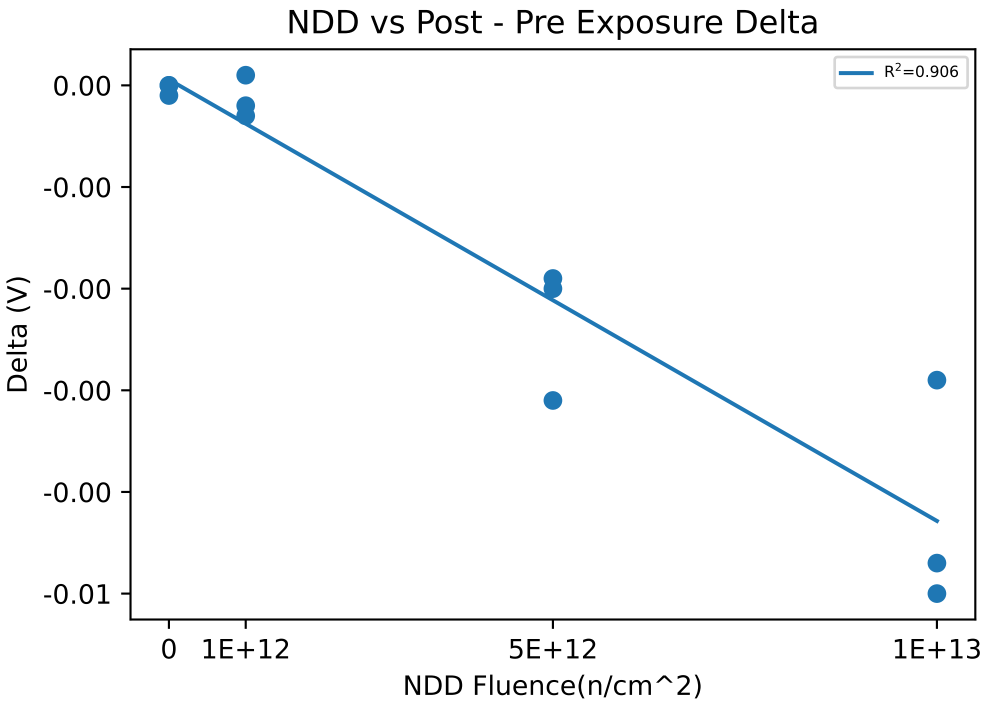
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5998	0.5997	-0.0001
65	1e+12	NDD unbiased	0.6007	0.6008	0.0001
66	1e+12	NDD unbiased	0.6029	0.6018	-0.0011
67	1e+13	NDD unbiased	0.5988	0.5937	-0.0051
68	1e+13	NDD unbiased	0.6037	0.5987	-0.005
70	1e+13	NDD unbiased	0.6057	0.6016	-0.0041
71	5e+12	NDD unbiased	0.5997	0.5968	-0.0029
72	5e+12	NDD unbiased	0.5999	0.5968	-0.0031
73	5e+12	NDD unbiased	0.6027	0.5997	-0.003
187	0	Correlation	0.6037	0.6036	-0.0001
188	0	Correlation	0.5988	0.5988	0
189	0	Correlation	0.6037	0.6036	-0.0001
190	0	Correlation	0.5978	0.5988	0.001

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	0.5978	0.601	0.6037	0.0031443	0.5988	0.6012	0.6036	0.0027713	-0.0001	0.0002	0.001	0.00053541
1e+12	0.5998	0.60113	0.6029	0.0015948	0.5997	0.60077	0.6018	0.0010504	-0.0011	-0.00036667	0.0001	0.00064291
5e+12	0.5997	0.60077	0.6027	0.0016773	0.5968	0.59777	0.5997	0.0016743	-0.0031	-0.003	-0.0029	0.0001
1e+13	0.5988	0.60273	0.6057	0.0035501	0.5937	0.598	0.6016	0.0039962	-0.0051	-0.0047333	-0.0041	0.00055076

Device Test: 13.11 VIL_EN(THRESHOLD|FALL/EN/7/0.6//10//@VIL_EN)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

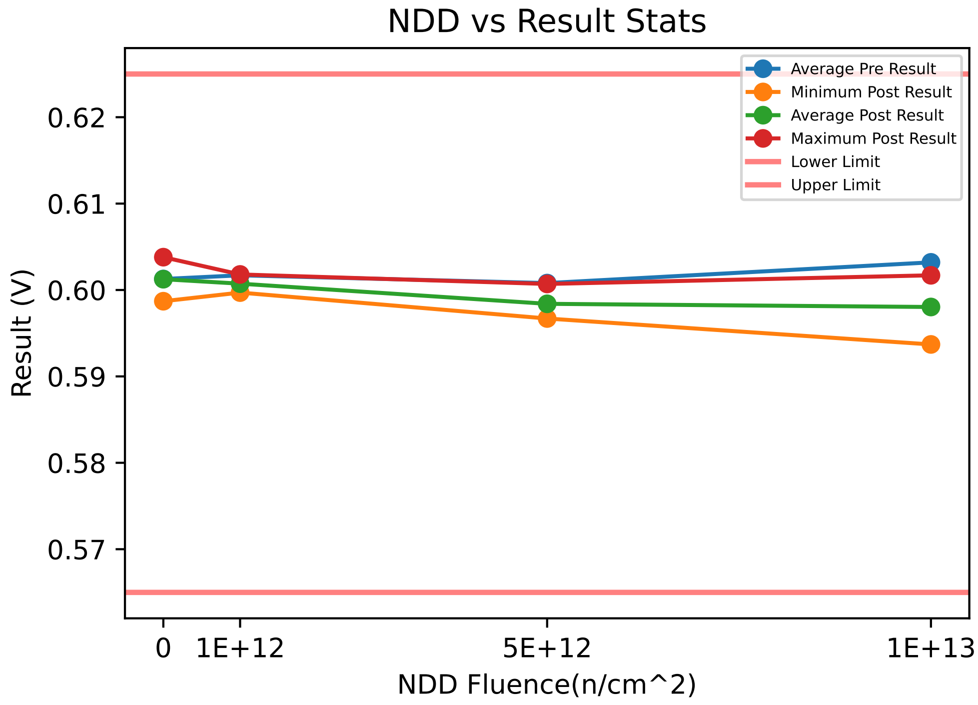
Test Results (Lower Limit = 0.465, Upper Limit = 0.52 (V))

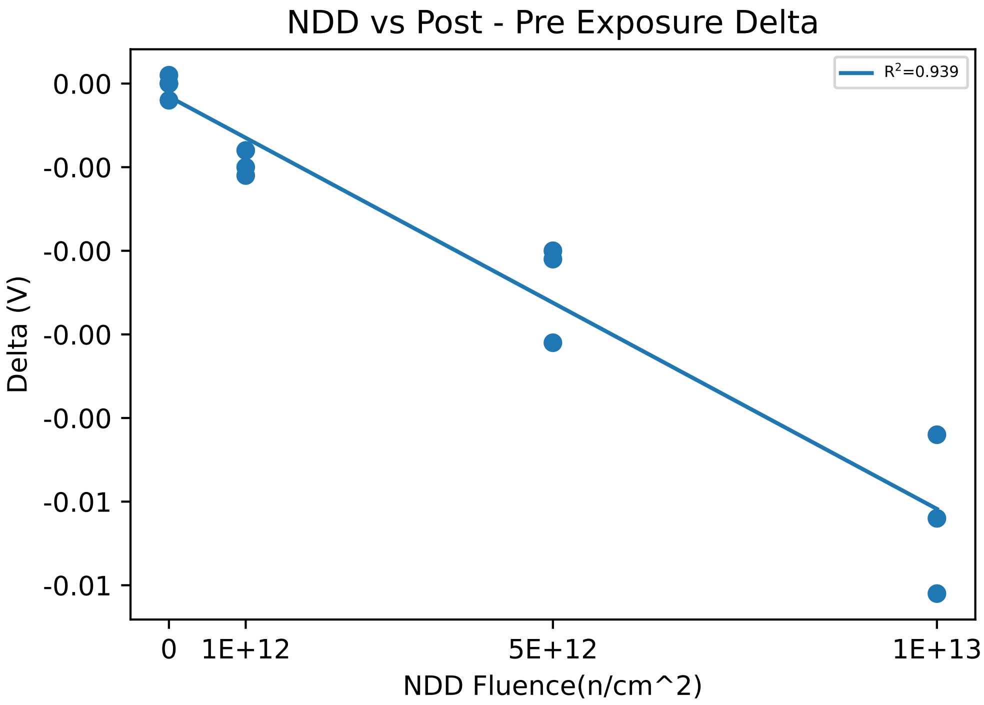
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.4959	0.4956	-0.0003
65	1e+12	NDD unbiased	0.4969	0.4967	-0.0002
66	1e+12	NDD unbiased	0.4976	0.4977	0.0001
67	1e+13	NDD unbiased	0.4936	0.4889	-0.0047
68	1e+13	NDD unbiased	0.4997	0.4947	-0.005
70	1e+13	NDD unbiased	0.5006	0.4977	-0.0029
71	5e+12	NDD unbiased	0.4956	0.4925	-0.0031
72	5e+12	NDD unbiased	0.4957	0.4937	-0.002
73	5e+12	NDD unbiased	0.4976	0.4957	-0.0019
187	0	Correlation	0.4986	0.4985	-0.0001
188	0	Correlation	0.4947	0.4947	0
189	0	Correlation	0.4986	0.4986	0
190	0	Correlation	0.4947	0.4947	0

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	0.4947	0.49665	0.4986	0.0022517	0.4947	0.49662	0.4986	0.0022232	-0.0001	-2.5e-05	0	5e-05
1e+12	0.4959	0.4968	0.4976	0.0008544	0.4956	0.49667	0.4977	0.0010504	-0.0003	-0.00013333	0.0001	0.00020817
5e+12	0.4956	0.4963	0.4976	0.0011269	0.4925	0.49397	0.4957	0.0016166	-0.0031	-0.0023333	-0.0019	0.00066583
1e+13	0.4936	0.49797	0.5006	0.0038083	0.4889	0.49377	0.4977	0.0044736	-0.005	-0.0042	-0.0029	0.0011358

Device Test: 13.13 VIH_EN(THRESHOLD|RISE/EN/12/0.6//10//@VIH_EN)





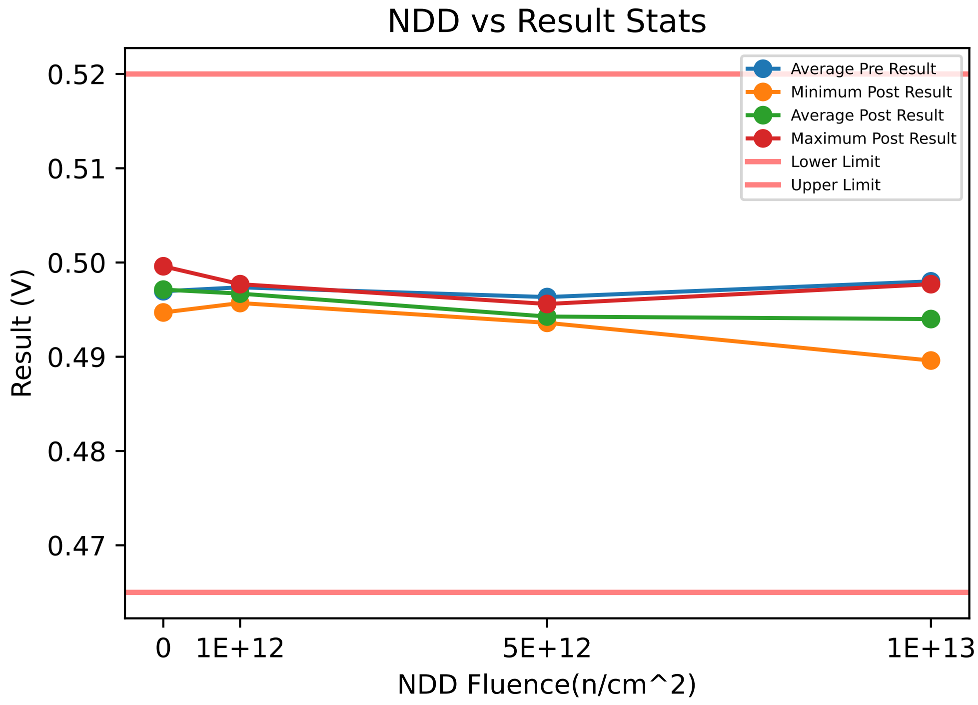
Test Results (Lower Limit = 0.565, Upper Limit = 0.625 (V))

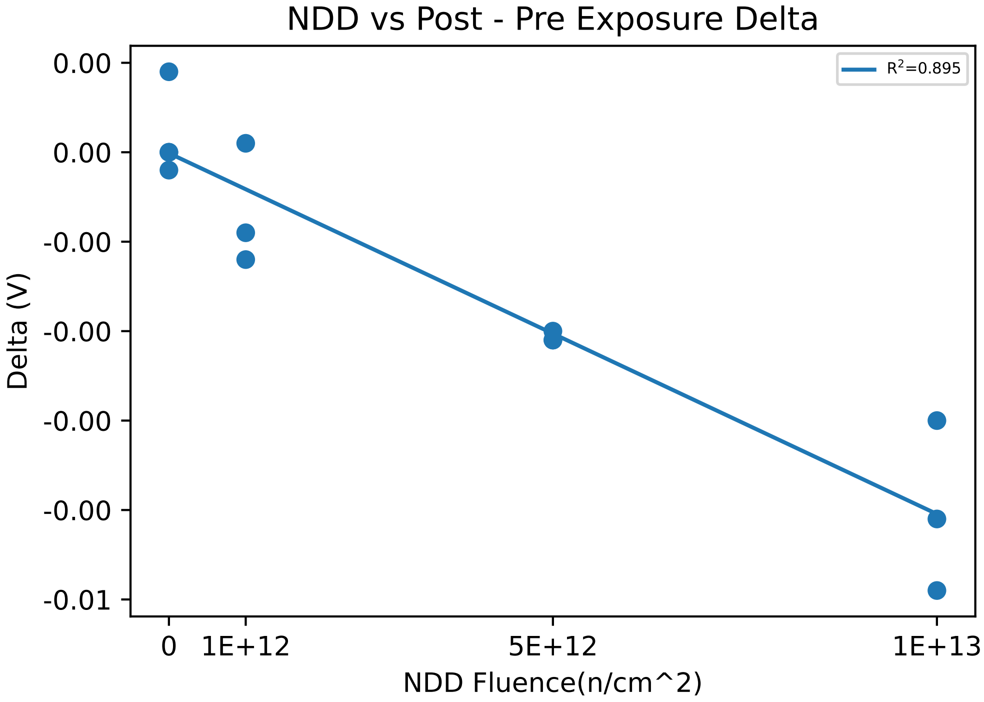
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.6008	0.5997	-0.0011
65	1e+12	NDD unbiased	0.6017	0.6007	-0.001
66	1e+12	NDD unbiased	0.6026	0.6018	-0.0008
67	1e+13	NDD unbiased	0.5989	0.5937	-0.0052
68	1e+13	NDD unbiased	0.6048	0.5987	-0.0061
70	1e+13	NDD unbiased	0.6059	0.6017	-0.0042
71	5e+12	NDD unbiased	0.5998	0.5978	-0.002
72	5e+12	NDD unbiased	0.5998	0.5967	-0.0031
73	5e+12	NDD unbiased	0.6028	0.6007	-0.0021
187	0	Correlation	0.6037	0.6038	0.0001
188	0	Correlation	0.5989	0.5987	-0.0002
189	0	Correlation	0.6037	0.6037	0
190	0	Correlation	0.5988	0.5988	0

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	0.5988	0.60128	0.6037	0.0028004	0.5987	0.60125	0.6038	0.0028873	-0.0002	-2.5e-05	0.0001	0.00012583
1e+12	0.6008	0.6017	0.6026	0.0009	0.5997	0.60073	0.6018	0.0010504	-0.0011	-0.00096667	-0.0008	0.00015275
5e+12	0.5998	0.6008	0.6028	0.0017321	0.5967	0.5984	0.6007	0.0020664	-0.0031	-0.0024	-0.002	0.00060828
1e+13	0.5989	0.6032	0.6059	0.0037643	0.5937	0.59803	0.6017	0.0040415	-0.0061	-0.0051667	-0.0042	0.00095044

Device Test: 13.14 VIL_EN(THRESHOLD|FALL/EN/12/0.6//10//@VIL_EN)





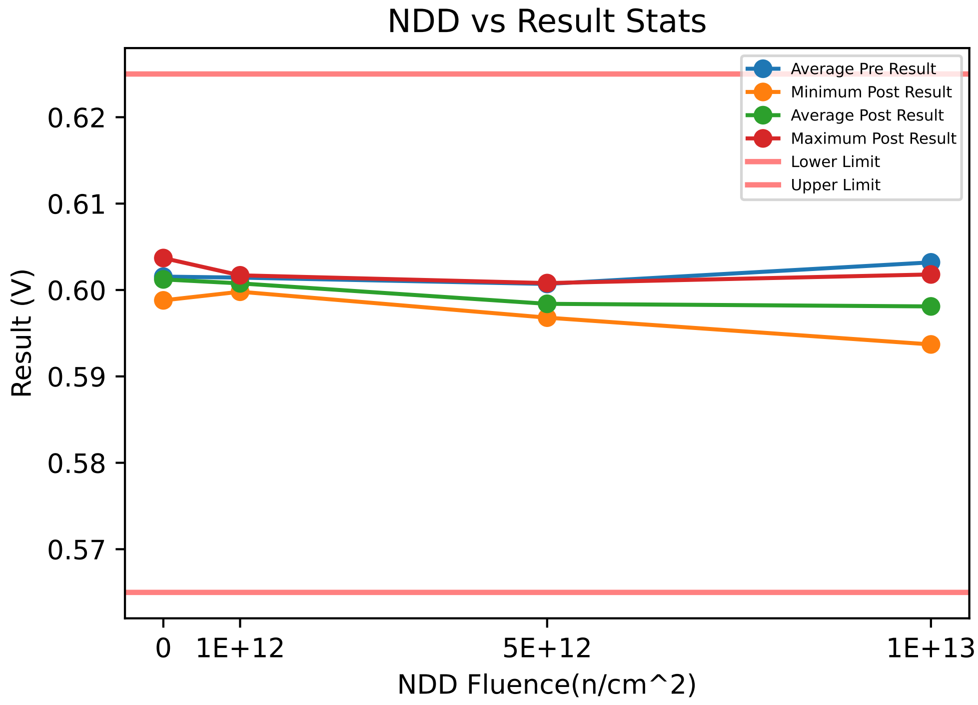
Test Results (Lower Limit = 0.465, Upper Limit = 0.52 (V))

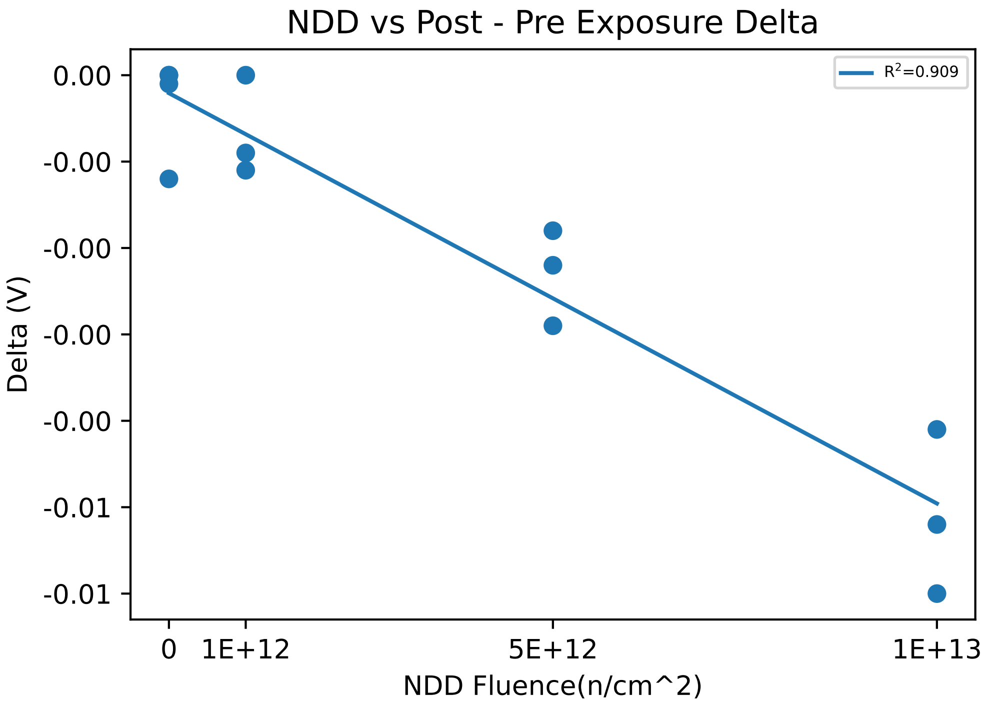
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.4969	0.4957	-0.0012
65	1e+12	NDD unbiased	0.4966	0.4967	0.0001
66	1e+12	NDD unbiased	0.4986	0.4977	-0.0009
67	1e+13	NDD unbiased	0.4937	0.4896	-0.0041
68	1e+13	NDD unbiased	0.4996	0.4947	-0.0049
70	1e+13	NDD unbiased	0.5007	0.4977	-0.003
71	5e+12	NDD unbiased	0.4957	0.4936	-0.0021
72	5e+12	NDD unbiased	0.4956	0.4936	-0.002
73	5e+12	NDD unbiased	0.4977	0.4956	-0.0021
187	0	Correlation	0.4987	0.4996	0.0009
188	0	Correlation	0.4947	0.4947	0
189	0	Correlation	0.4997	0.4995	-0.0002
190	0	Correlation	0.4947	0.4947	0

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	0.4947	0.49695	0.4997	0.00263	0.4947	0.49712	0.4996	0.0028004	-0.0002	0.000175	0.0009	0.00049244
1e+12	0.4966	0.49737	0.4986	0.0010786	0.4957	0.4967	0.4977	0.001	-0.0012	-0.00066667	0.0001	0.00068069
5e+12	0.4956	0.49633	0.4977	0.0011846	0.4936	0.49427	0.4956	0.0011547	-0.0021	-0.0020667	-0.002	5.7735e-05
1e+13	0.4937	0.498	0.5007	0.0037643	0.4896	0.494	0.4977	0.0040951	-0.0049	-0.004	-0.003	0.00095394

Device Test: 13.16 VIH_EN(THRESHOLD|RISE/EN/14/0.6//10//@VIH_EN)





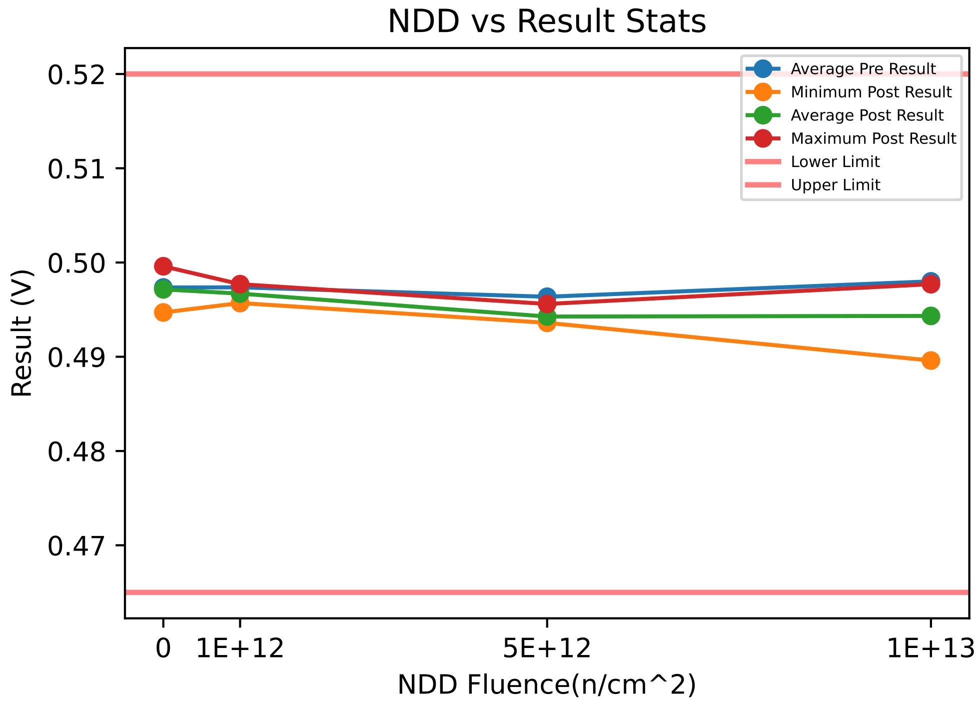
Test Results (Lower Limit = 0.565, Upper Limit = 0.625 (V))

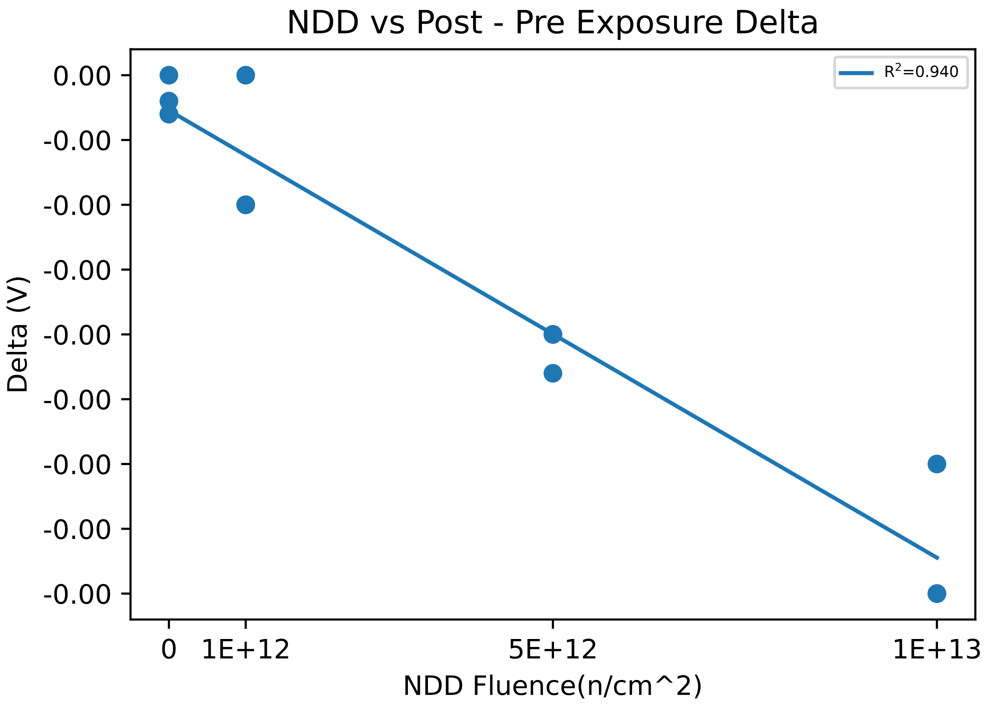
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.6007	0.5998	-0.0009
65	1e+12	NDD unbiased	0.6008	0.6008	0
66	1e+12	NDD unbiased	0.6028	0.6017	-0.0011
67	1e+13	NDD unbiased	0.5989	0.5937	-0.0052
68	1e+13	NDD unbiased	0.6048	0.5988	-0.006
70	1e+13	NDD unbiased	0.6059	0.6018	-0.0041
71	5e+12	NDD unbiased	0.5998	0.5976	-0.0022
72	5e+12	NDD unbiased	0.5997	0.5968	-0.0029
73	5e+12	NDD unbiased	0.6026	0.6008	-0.0018
187	0	Correlation	0.6037	0.6036	-0.0001
188	0	Correlation	0.5988	0.5988	0
189	0	Correlation	0.6049	0.6037	-0.0012
190	0	Correlation	0.5988	0.5988	0

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	0.5988	0.60155	0.6049	0.003213	0.5988	0.60123	0.6037	0.0028004	-0.0012	-0.000325	0	0.00058523
1e+12	0.6007	0.60143	0.6028	0.0011846	0.5998	0.60077	0.6017	0.00095044	-0.0011	-0.00066667	0	0.00058595
5e+12	0.5997	0.6007	0.6026	0.0016462	0.5968	0.5984	0.6008	0.0021166	-0.0029	-0.0023	-0.0018	0.00055678
1e+13	0.5989	0.6032	0.6059	0.0037643	0.5937	0.5981	0.6018	0.0040951	-0.006	-0.0051	-0.0041	0.00095394

Device Test: 13.17 VIL_EN(THRESHOLD|FALL/EN/14/0.6//10//@VIL_EN)





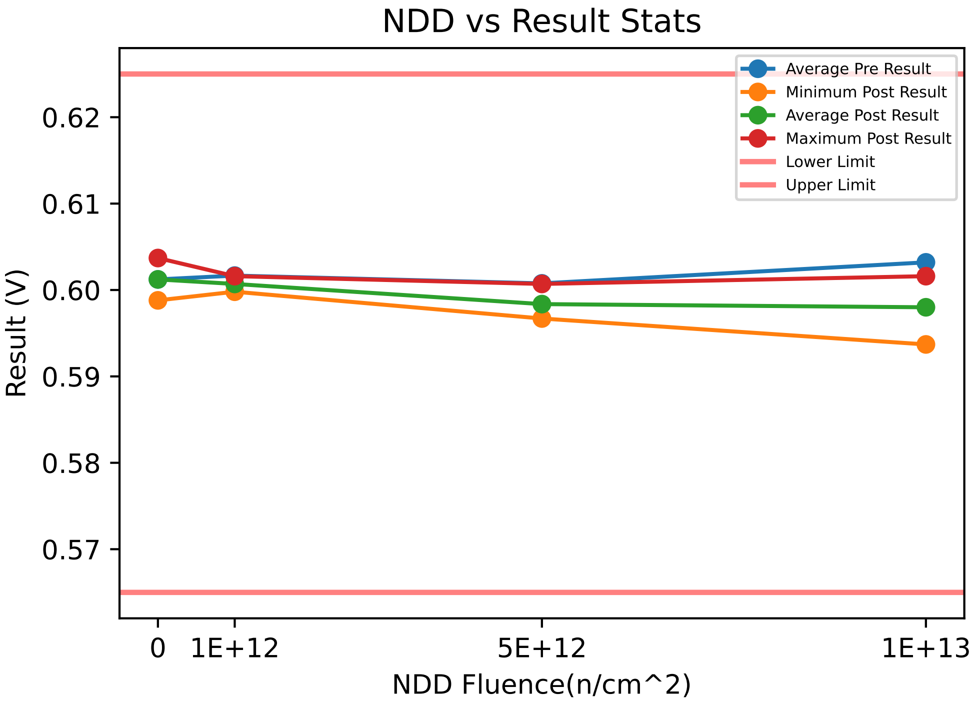
Test Results (Lower Limit = 0.465, Upper Limit = 0.52 (V))

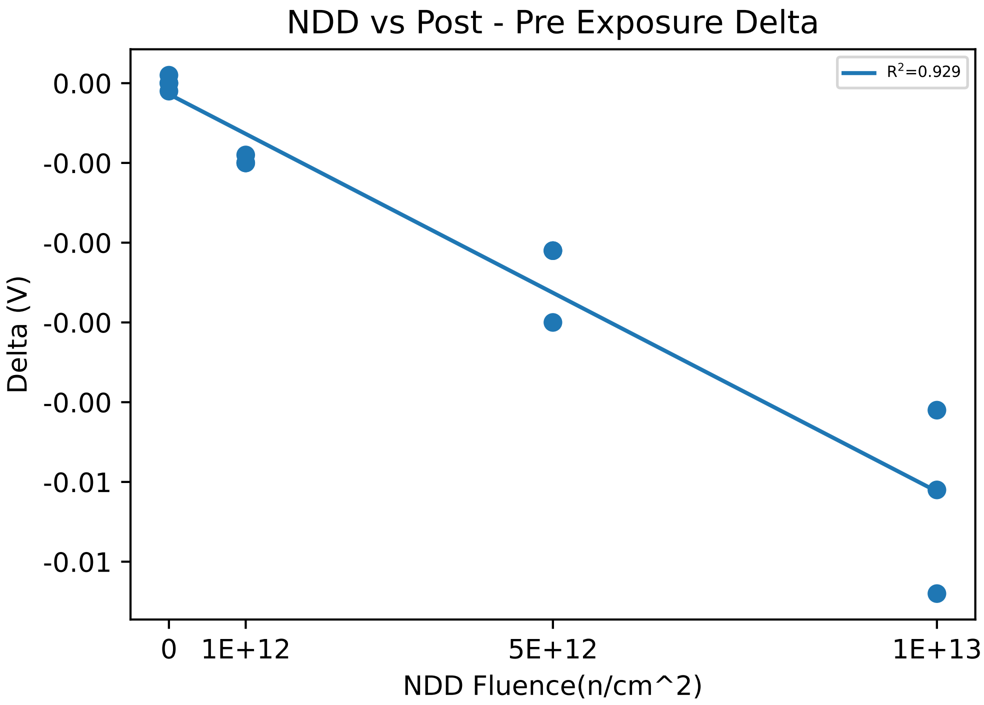
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.4967	0.4957	-0.001
65	1e+12	NDD unbiased	0.4967	0.4967	0
66	1e+12	NDD unbiased	0.4987	0.4977	-0.001
67	1e+13	NDD unbiased	0.4936	0.4896	-0.004
68	1e+13	NDD unbiased	0.4997	0.4957	-0.004
70	1e+13	NDD unbiased	0.5007	0.4977	-0.003
71	5e+12	NDD unbiased	0.4959	0.4936	-0.0023
72	5e+12	NDD unbiased	0.4956	0.4936	-0.002
73	5e+12	NDD unbiased	0.4976	0.4956	-0.002
187	0	Correlation	0.4999	0.4996	-0.0003
188	0	Correlation	0.495	0.4947	-0.0003
189	0	Correlation	0.4996	0.4996	0
190	0	Correlation	0.4949	0.4947	-0.0002

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	0.4949	0.49735	0.4999	0.0027743	0.4947	0.49715	0.4996	0.002829	-0.0003	-0.0002	0	0.00014142
1e+12	0.4967	0.49737	0.4987	0.0011547	0.4957	0.4967	0.4977	0.001	-0.001	-0.00066667	0	0.00057735
5e+12	0.4956	0.49637	0.4976	0.0010786	0.4936	0.49427	0.4956	0.0011547	-0.0023	-0.0021	-0.002	0.00017321
1e+13	0.4936	0.498	0.5007	0.0038432	0.4896	0.49433	0.4977	0.0042194	-0.004	-0.0036667	-0.003	0.00057735

Device Test: 13.19 VIH_EN(THRESHOLD|RISE/EN/14/13.9//10//@VIH_EN)





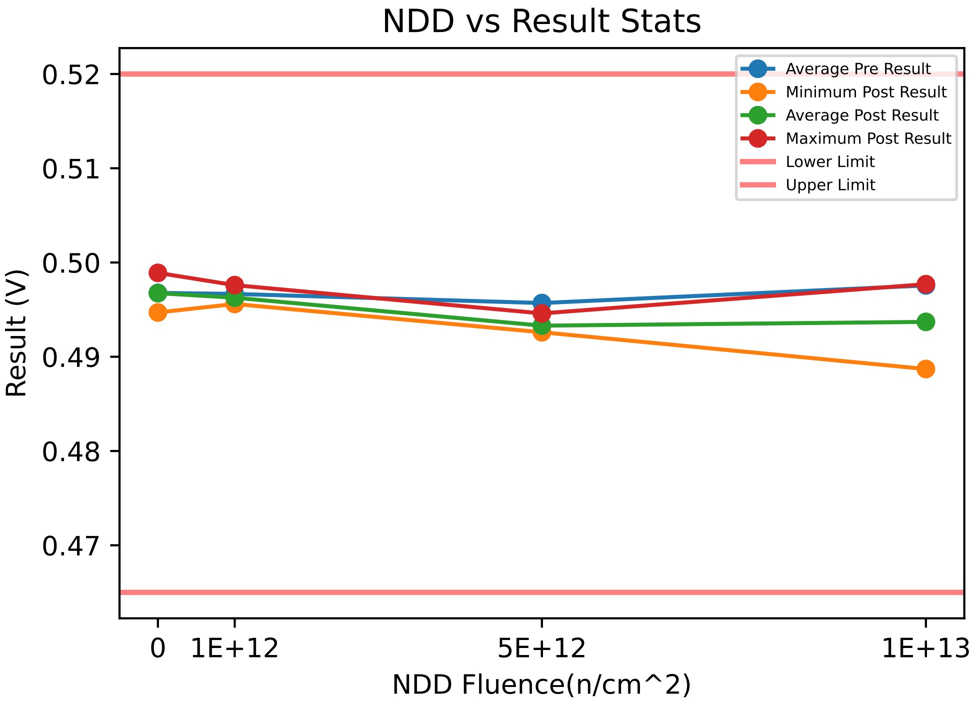
Test Results (Lower Limit = 0.565, Upper Limit = 0.625 (V))

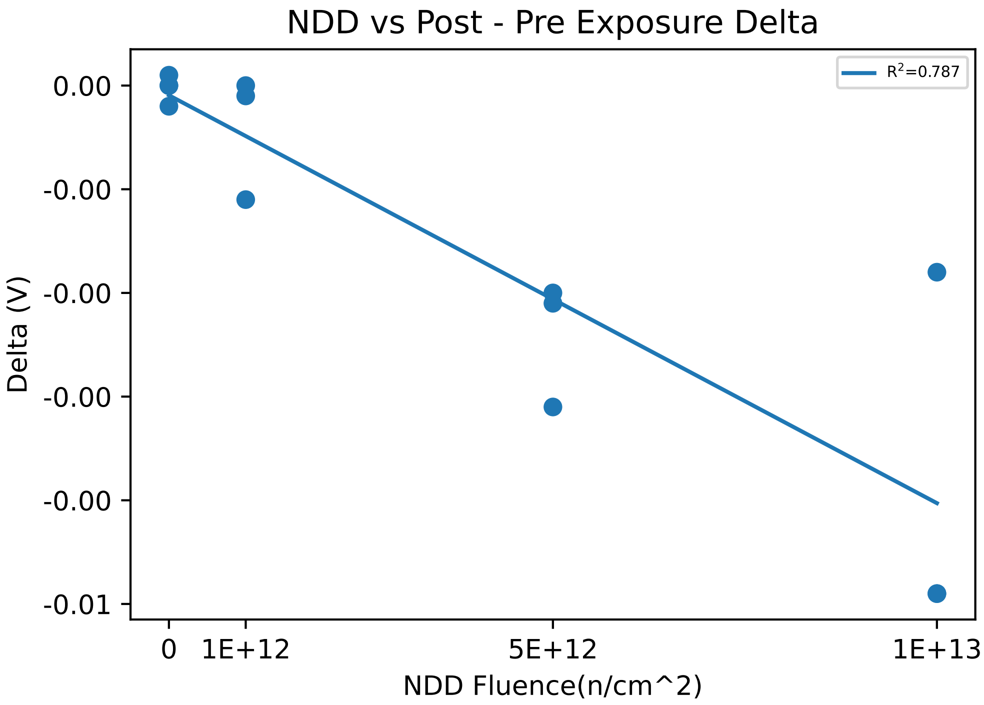
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.6007	0.5998	-0.0009
65	1e+12	NDD unbiased	0.6017	0.6007	-0.001
66	1e+12	NDD unbiased	0.6026	0.6016	-0.001
67	1e+13	NDD unbiased	0.5988	0.5937	-0.0051
68	1e+13	NDD unbiased	0.6051	0.5987	-0.0064
70	1e+13	NDD unbiased	0.6057	0.6016	-0.0041
71	5e+12	NDD unbiased	0.5998	0.5977	-0.0021
72	5e+12	NDD unbiased	0.5997	0.5967	-0.003
73	5e+12	NDD unbiased	0.6028	0.6007	-0.0021
187	0	Correlation	0.6037	0.6036	-0.0001
188	0	Correlation	0.5988	0.5988	0
189	0	Correlation	0.6036	0.6037	0.0001
190	0	Correlation	0.5988	0.5988	0

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	0.5988	0.60123	0.6037	0.0028004	0.5988	0.60123	0.6037	0.0028004	-0.0001	0	0.0001	8.165e-05
1e+12	0.6007	0.60167	0.6026	0.00095044	0.5998	0.6007	0.6016	0.0009	-0.001	-0.00096667	-0.0009	5.7735e-05
5e+12	0.5997	0.60077	0.6028	0.0017616	0.5967	0.59837	0.6007	0.0020817	-0.003	-0.0024	-0.0021	0.00051962
1e+13	0.5988	0.6032	0.6057	0.0038223	0.5937	0.598	0.6016	0.0039962	-0.0064	-0.0052	-0.0041	0.0011533

Device Test: 13.2 VIL_EN(THRESHOLD|FALL/EN/2.25/0.6//10//@VIL_EN)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

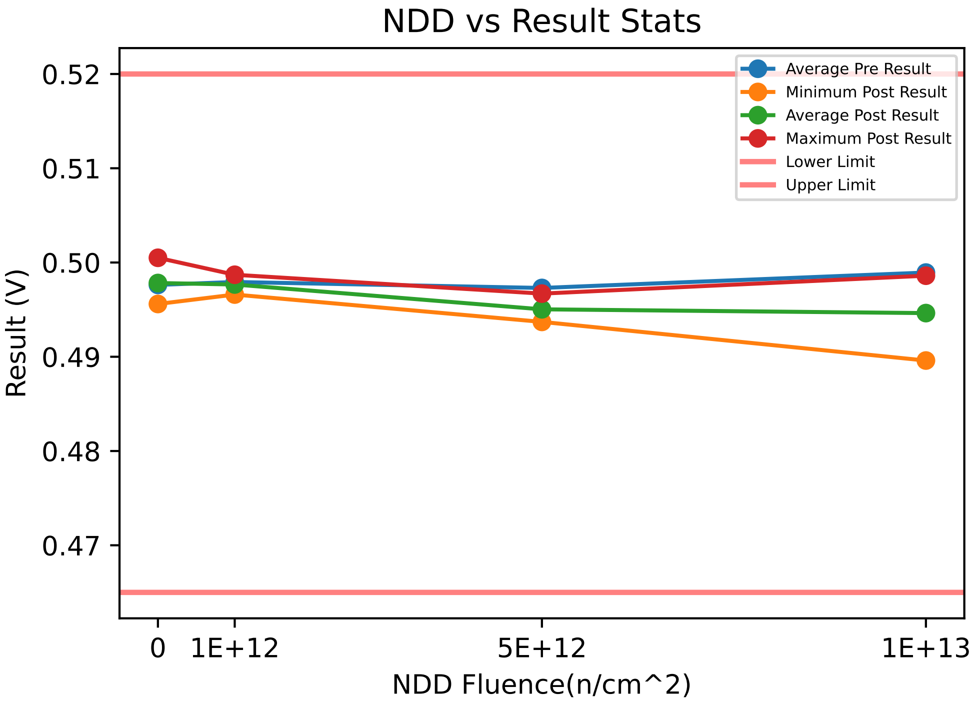
Test Results (Lower Limit = 0.465, Upper Limit = 0.52 (V))

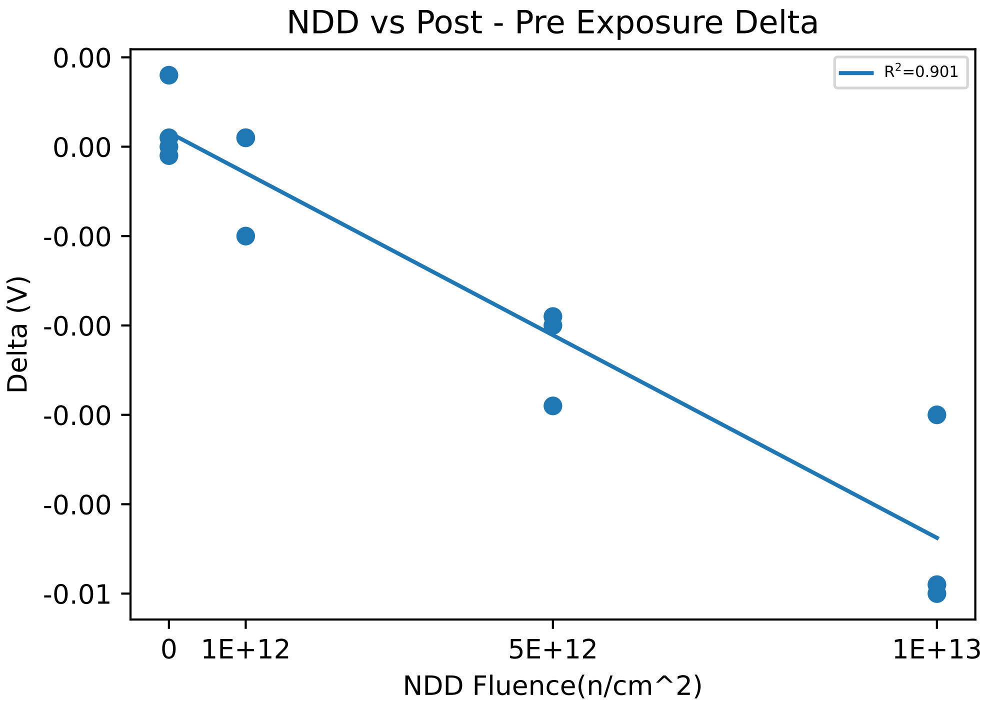
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.4956	0.4956	0
65	1e+12	NDD unbiased	0.4967	0.4956	-0.0011
66	1e+12	NDD unbiased	0.4977	0.4976	-0.0001
67	1e+13	NDD unbiased	0.4936	0.4887	-0.0049
68	1e+13	NDD unbiased	0.4996	0.4947	-0.0049
70	1e+13	NDD unbiased	0.4995	0.4977	-0.0018
71	5e+12	NDD unbiased	0.4947	0.4927	-0.002
72	5e+12	NDD unbiased	0.4957	0.4926	-0.0031
73	5e+12	NDD unbiased	0.4967	0.4946	-0.0021
187	0	Correlation	0.4989	0.4989	0
188	0	Correlation	0.4947	0.4947	0
189	0	Correlation	0.4986	0.4987	0.0001
190	0	Correlation	0.4949	0.4947	-0.0002

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	0.4947	0.49677	0.4989	0.0022853	0.4947	0.49675	0.4989	0.0023685	-0.0002	-2.5e-05	0.0001	0.00012583
1e+12	0.4956	0.49667	0.4977	0.0010504	0.4956	0.49627	0.4976	0.0011547	-0.0011	-0.0004	0	0.00060828
5e+12	0.4947	0.4957	0.4967	0.001	0.4926	0.4933	0.4946	0.0011269	-0.0031	-0.0024	-0.002	0.00060828
1e+13	0.4936	0.49757	0.4996	0.0034356	0.4887	0.4937	0.4977	0.0045826	-0.0049	-0.0038667	-0.0018	0.0017898

Device Test: 13.20 VIL_EN(THRESHOLD|FALL/EN/14/13.9//10//@VIL_EN)





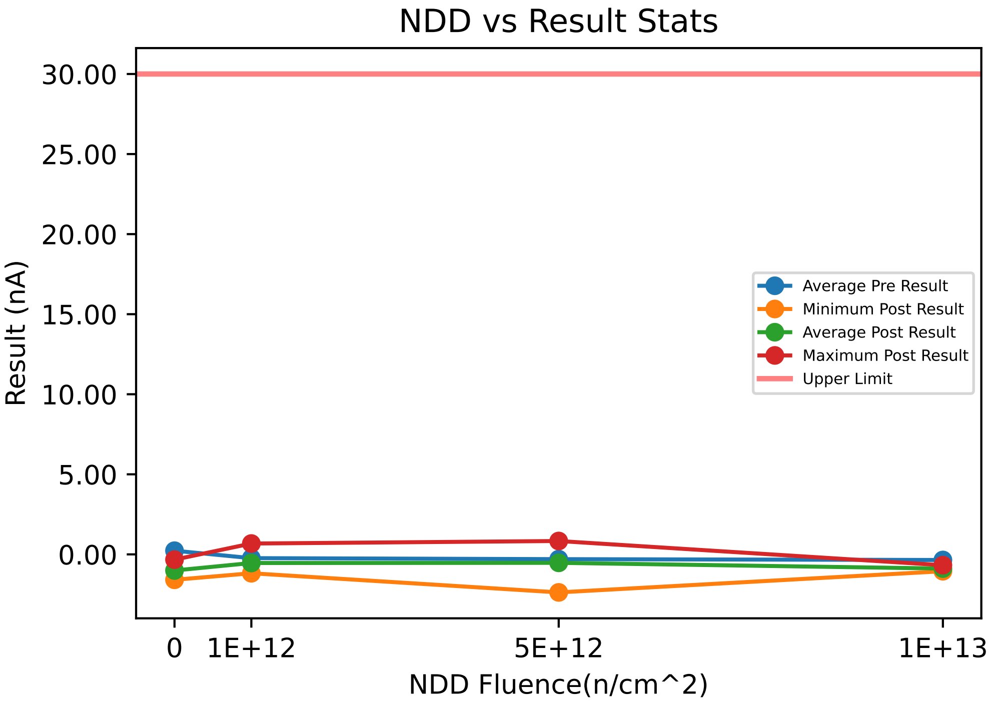
Test Results (Lower Limit = 0.465, Upper Limit = 0.52 (V))

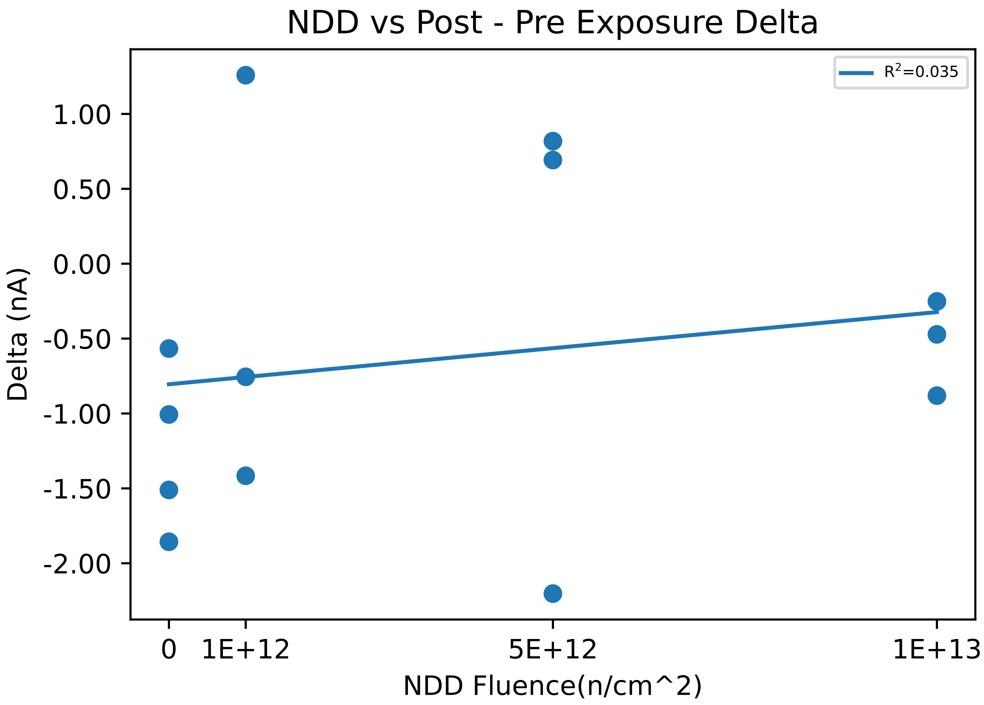
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.4976	0.4966	-0.001
65	1e+12	NDD unbiased	0.4976	0.4977	0.0001
66	1e+12	NDD unbiased	0.4986	0.4987	0.0001
67	1e+13	NDD unbiased	0.4946	0.4896	-0.005
68	1e+13	NDD unbiased	0.5006	0.4957	-0.0049
70	1e+13	NDD unbiased	0.5016	0.4986	-0.003
71	5e+12	NDD unbiased	0.4966	0.4937	-0.0029
72	5e+12	NDD unbiased	0.4967	0.4947	-0.002
73	5e+12	NDD unbiased	0.4986	0.4967	-0.0019
187	0	Correlation	0.4994	0.4995	0.0001
188	0	Correlation	0.4957	0.4956	-0.0001
189	0	Correlation	0.4997	0.5005	0.0008
190	0	Correlation	0.4957	0.4957	0

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	0.4957	0.49762	0.4997	0.0022262	0.4956	0.49782	0.5005	0.0025448	-0.0001	0.0002	0.0008	0.00040825
1e+12	0.4976	0.49793	0.4986	0.00057735	0.4966	0.49767	0.4987	0.0010504	-0.001	-0.00026667	0.0001	0.00063509
5e+12	0.4966	0.4973	0.4986	0.0011269	0.4937	0.49503	0.4967	0.0015275	-0.0029	-0.0022667	-0.0019	0.00055076
1e+13	0.4946	0.49893	0.5016	0.0037859	0.4896	0.49463	0.4986	0.0045938	-0.005	-0.0043	-0.003	0.0011269

Device Test: 13.22 I_EN(THRESHOLD|LEAK/EN/2.25/0.6/7/10//@I_EN)





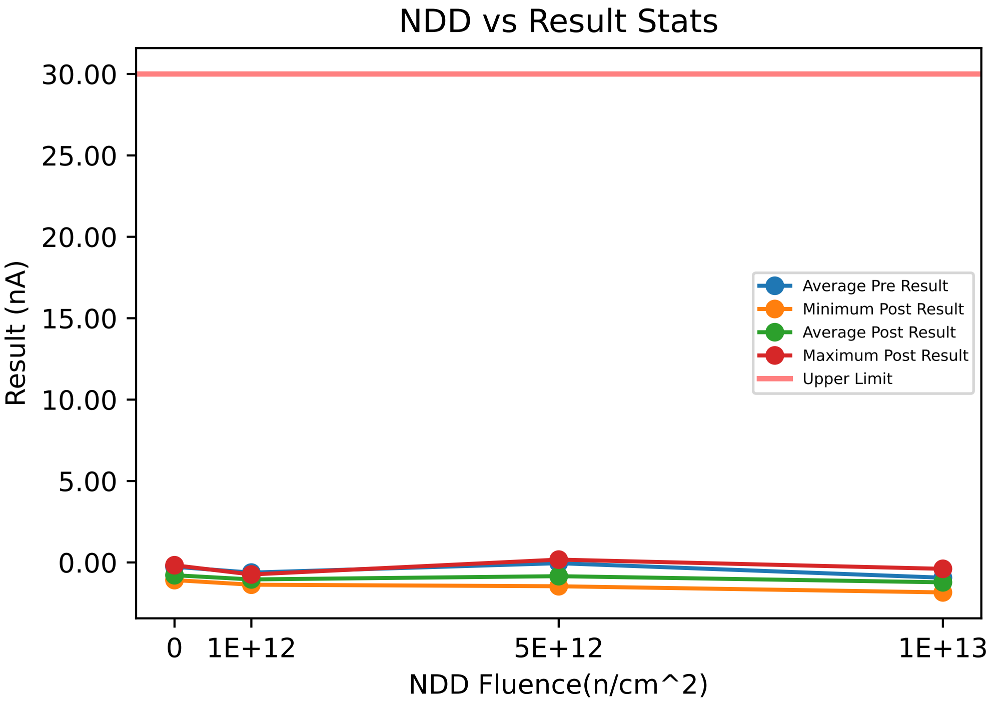
Test Results (Upper Limit = 30.0 (nA))

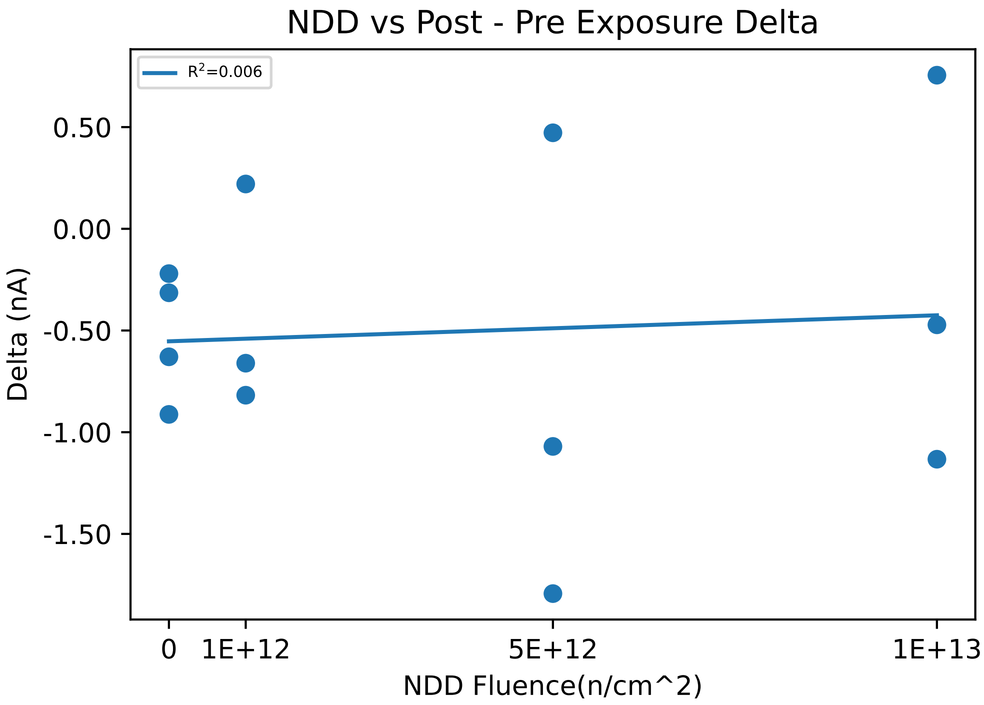
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.2996	-1.1163	-1.4159
65	1e+12	NDD unbiased	-0.4241	-1.1792	-0.7551
66	1e+12	NDD unbiased	-0.5814	0.6772	1.2586
67	1e+13	NDD unbiased	-0.4241	-0.6758	-0.2517
68	1e+13	NDD unbiased	-0.0465	-0.9275	-0.881
70	1e+13	NDD unbiased	-0.5814	-1.0534	-0.472
71	5e+12	NDD unbiased	0.0164	0.8346	0.8182
72	5e+12	NDD unbiased	-0.1723	-2.3749	-2.2026
73	5e+12	NDD unbiased	-0.7387	-0.0465	0.6922
187	0	Correlation	-0.0779	-1.5883	-1.5104
188	0	Correlation	0.2367	-0.3297	-0.5664
189	0	Correlation	0.0479	-0.959	-1.0069
190	0	Correlation	0.7087	-1.1478	-1.8565

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	-0.0779	0.22885	0.7087	0.34504	-1.5883	-1.0062	-0.3297	0.52242	-1.8565	-1.235	-0.5664	0.56603
1e+12	-0.5814	-0.2353	0.2996	0.46987	-1.1792	-0.53943	0.6772	1.0541	-1.4159	-0.30413	1.2586	1.3931
5e+12	-0.7387	-0.2982	0.0164	0.39298	-2.3749	-0.52893	0.8346	1.6582	-2.2026	-0.23073	0.8182	1.7088
1e+13	-0.5814	-0.35067	-0.0465	0.27491	-1.0534	-0.88557	-0.6758	0.19226	-0.881	-0.5349	-0.2517	0.31933

Device Test: 13.23 I_EN(THRESHOLD|LEAK/EN/14/0.6/7/10//@I_EN)





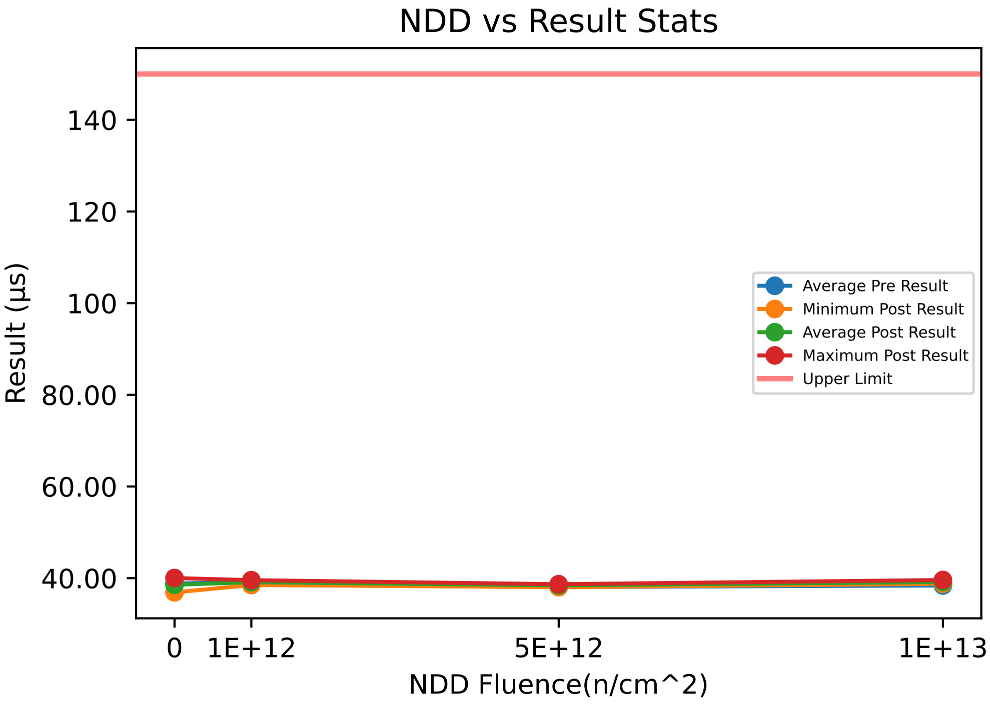
Test Results (Upper Limit = 30.0 (nA))

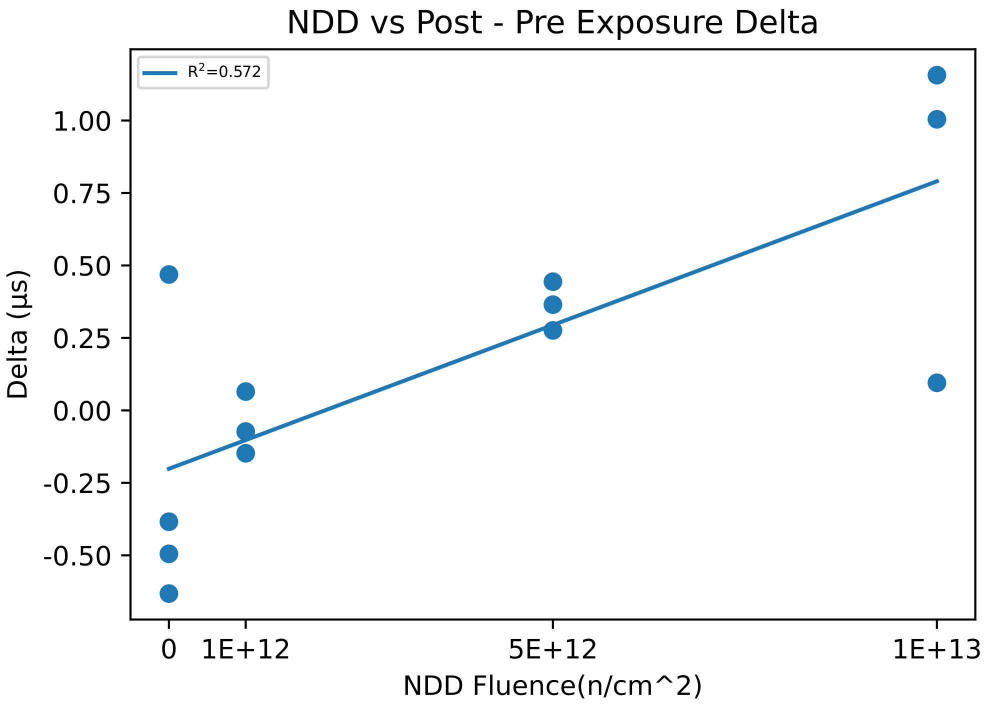
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	-0.959	-0.7387	0.2203
65	1e+12	NDD unbiased	-0.2038	-1.0219	-0.8181
66	1e+12	NDD unbiased	-0.7073	-1.368	-0.6607
67	1e+13	NDD unbiased	-1.1478	-0.3926	0.7552
68	1e+13	NDD unbiased	-0.2982	-1.431	-1.1328
70	1e+13	NDD unbiased	-1.368	-1.84	-0.472
71	5e+12	NDD unbiased	-0.2982	0.1738	0.472
72	5e+12	NDD unbiased	-0.1723	-1.2422	-1.0699
73	5e+12	NDD unbiased	0.3311	-1.4624	-1.7935
187	0	Correlation	-0.4555	-1.0848	-0.6293
188	0	Correlation	-0.1094	-1.0219	-0.9125
189	0	Correlation	-0.6443	-0.8646	-0.2203
190	0	Correlation	0.1423	-0.1723	-0.3146

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	-0.6443	-0.26672	0.1423	0.35131	-1.0848	-0.7859	-0.1723	0.41942	-0.9125	-0.51917	-0.2203	0.31518
1e+12	-0.959	-0.62337	-0.2038	0.38453	-1.368	-1.0429	-0.7387	0.31517	-0.8181	-0.4195	0.2203	0.55964
5e+12	-0.2982	-0.046467	0.3311	0.33299	-1.4624	-0.8436	0.1738	0.88795	-1.7935	-0.79713	0.472	1.1571
1e+13	-1.368	-0.938	-0.2982	0.56492	-1.84	-1.2212	-0.3926	0.74616	-1.1328	-0.2832	0.7552	0.95806

Device Test: 13.24 T_EN_DELAY(THRESHOLD|DELAY/EN/2.25/0.6//10//@T_EN_DELAY)





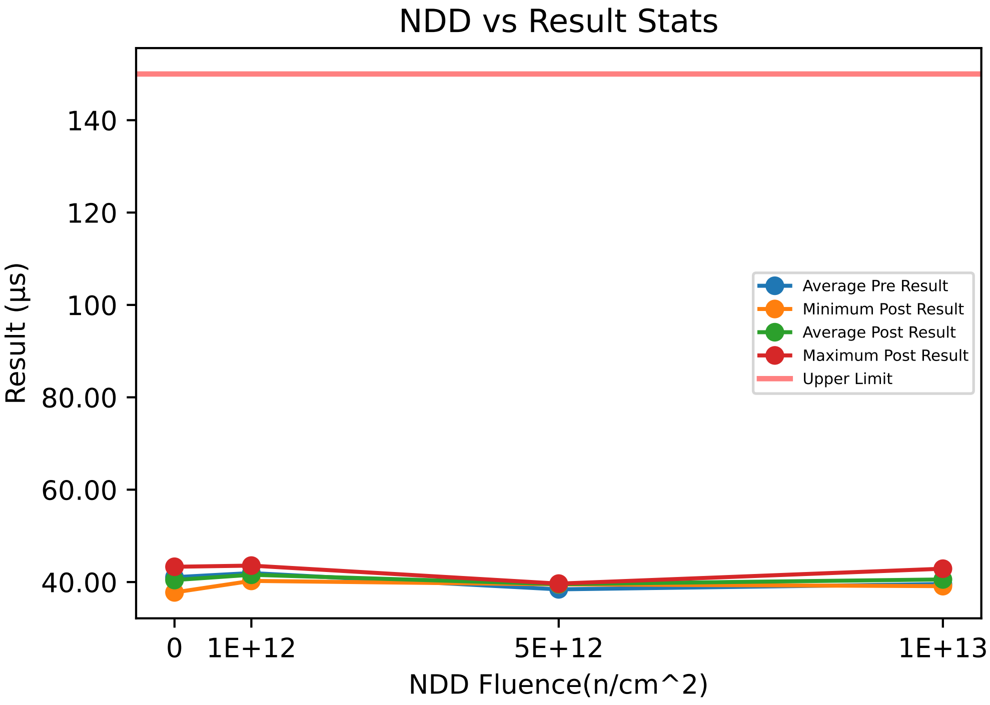
Test Results (Upper Limit = 150.0 (µs))

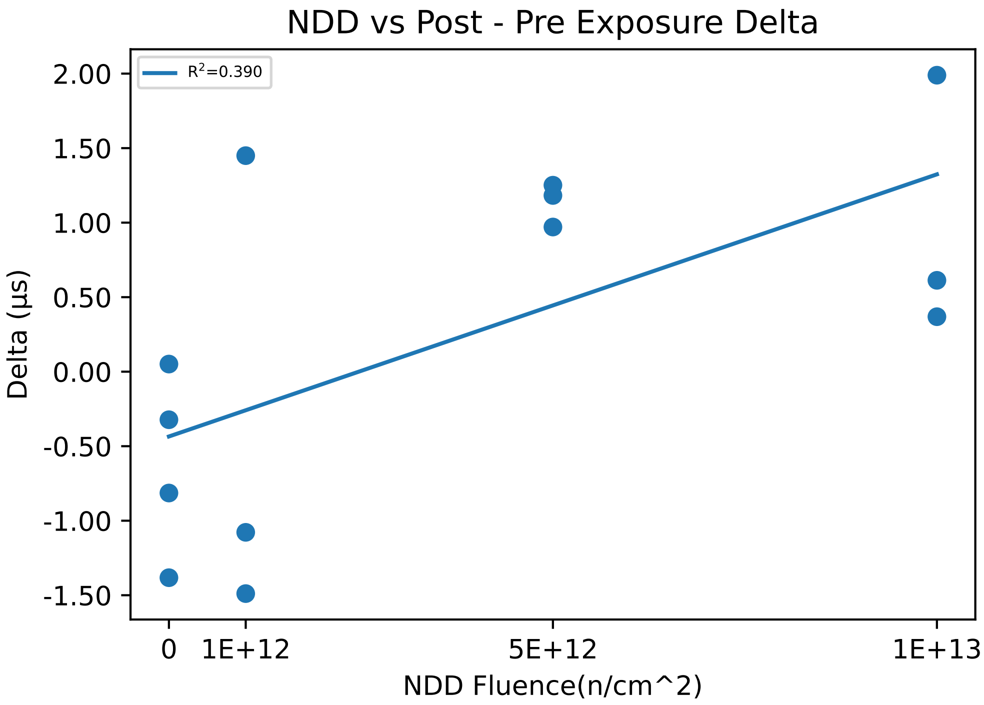
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	39.707	39.559	-0.1479
65	1e+12	NDD unbiased	38.575	38.502	-0.0729
66	1e+12	NDD unbiased	39.244	39.309	0.0649
67	1e+13	NDD unbiased	38.592	39.597	1.0043
68	1e+13	NDD unbiased	38.678	38.773	0.0951
70	1e+13	NDD unbiased	37.951	39.107	1.1564
71	5e+12	NDD unbiased	37.67	38.035	0.3648
72	5e+12	NDD unbiased	38.117	38.562	0.444
73	5e+12	NDD unbiased	38.402	38.678	0.2759
187	0	Correlation	39.212	38.718	-0.4949
188	0	Correlation	39.556	40.025	0.4688
189	0	Correlation	38.946	38.562	-0.3841
190	0	Correlation	37.527	36.895	-0.6321

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	37.527	38.81	39.556	0.89151	36.895	38.55	40.025	1.2838	-0.6321	-0.26058	0.4688	0.49672
1e+12	38.575	39.175	39.707	0.56905	38.502	39.124	39.559	0.5523	-0.1479	-0.051967	0.0649	0.10793
5e+12	37.67	38.063	38.402	0.36899	38.035	38.425	38.678	0.34261	0.2759	0.36157	0.444	0.084097
1e+13	37.951	38.407	38.678	0.39721	38.773	39.159	39.597	0.41431	0.0951	0.75193	1.1564	0.5739

Device Test: 13.25 T_EN_DELAY(THRESHOLD|DELAY/EN/3.3/0.6//10//@T_EN_DELAY)





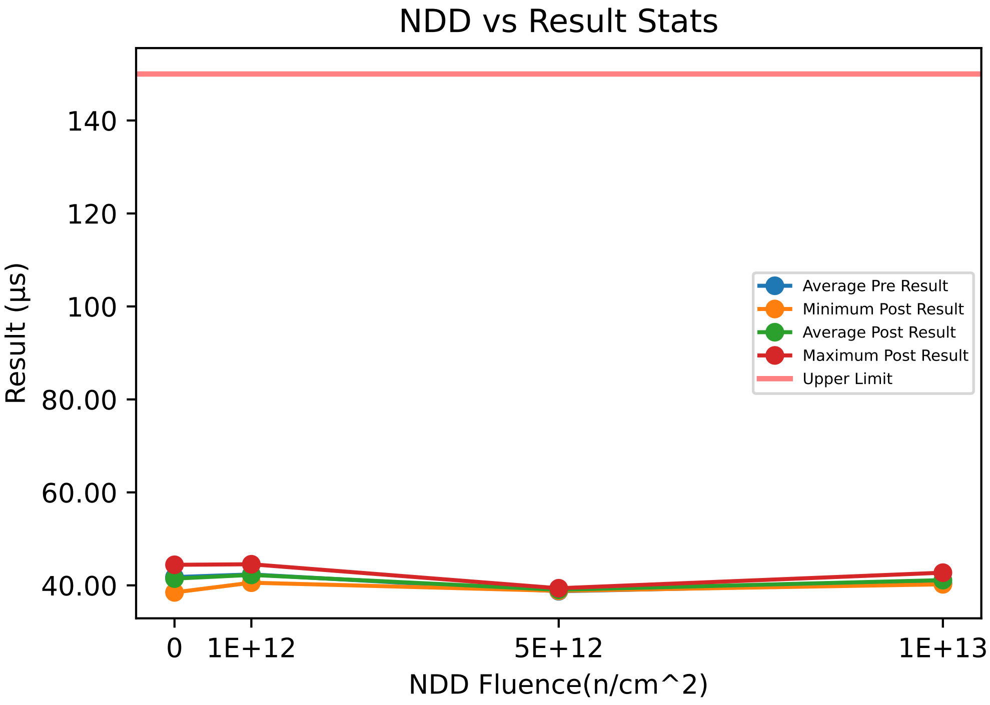
Test Results (Upper Limit = 150.0 (µs))

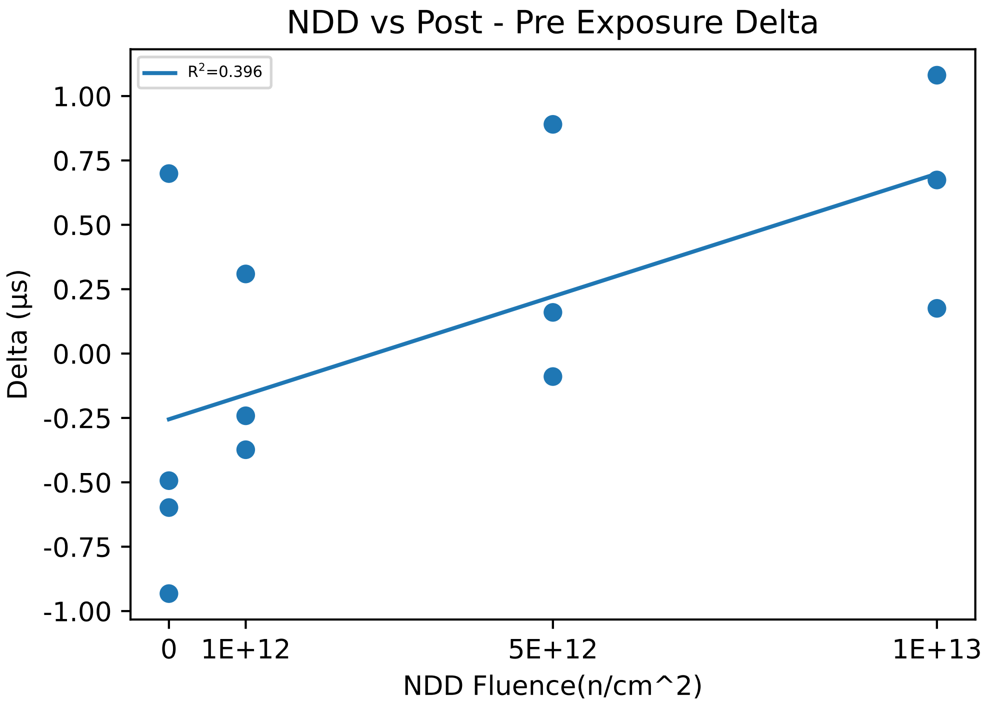
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	44.639	43.561	-1.078
65	1e+12	NDD unbiased	41.739	40.25	-1.4891
66	1e+12	NDD unbiased	39.466	40.916	1.4496
67	1e+13	NDD unbiased	38.745	39.114	0.3689
68	1e+13	NDD unbiased	39.065	39.678	0.613
70	1e+13	NDD unbiased	40.9	42.889	1.9894
71	5e+12	NDD unbiased	38.533	39.504	0.9707
72	5e+12	NDD unbiased	38.48	39.662	1.1824
73	5e+12	NDD unbiased	38.244	39.496	1.2513
187	0	Correlation	40.419	40.47	0.0511
188	0	Correlation	43.63	43.308	-0.3224
189	0	Correlation	41.578	40.195	-1.3824
190	0	Correlation	38.573	37.759	-0.8142

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	38.573	41.05	43.63	2.1187	37.759	40.433	43.308	2.2709	-1.3824	-0.61698	0.0511	0.62125
1e+12	39.466	41.948	44.639	2.5926	40.25	41.576	43.561	1.7514	-1.4891	-0.3725	1.4496	1.5913
5e+12	38.244	38.419	38.533	0.15362	39.496	39.554	39.662	0.093878	0.9707	1.1348	1.2513	0.14623
1e+13	38.745	39.57	40.9	1.1627	39.114	40.56	42.889	2.0364	0.3689	0.99043	1.9894	0.8737

Device Test: 13.26 T_EN_DELAY(THRESHOLD|DELAY/EN/5/0.6//10//@T_EN_DELAY)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

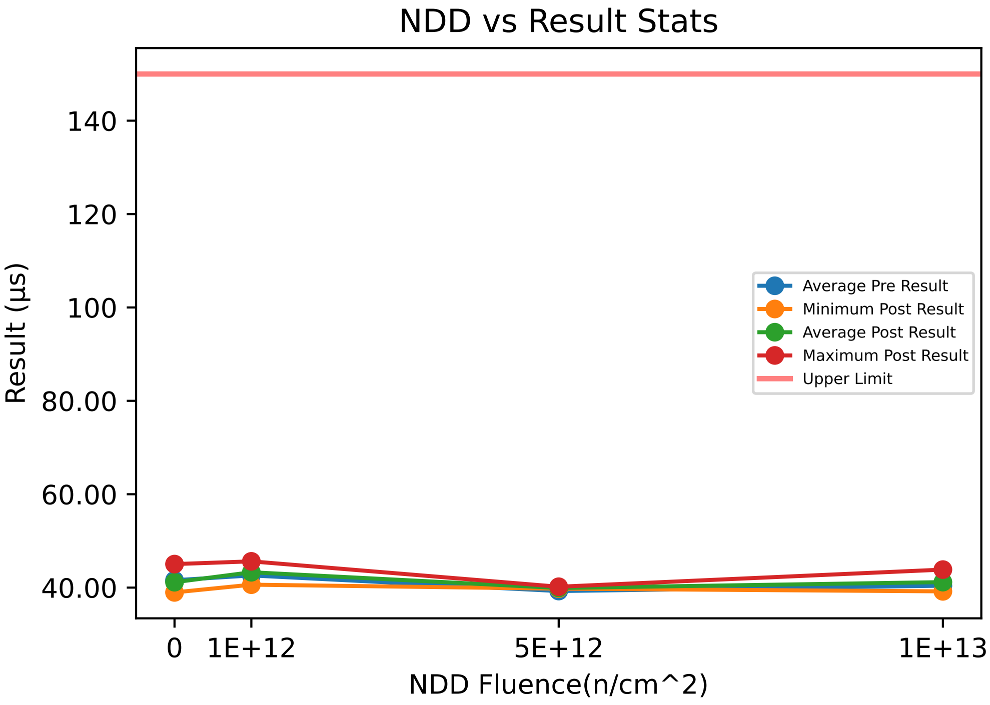
Test Results (Upper Limit = 150.0 (µs))

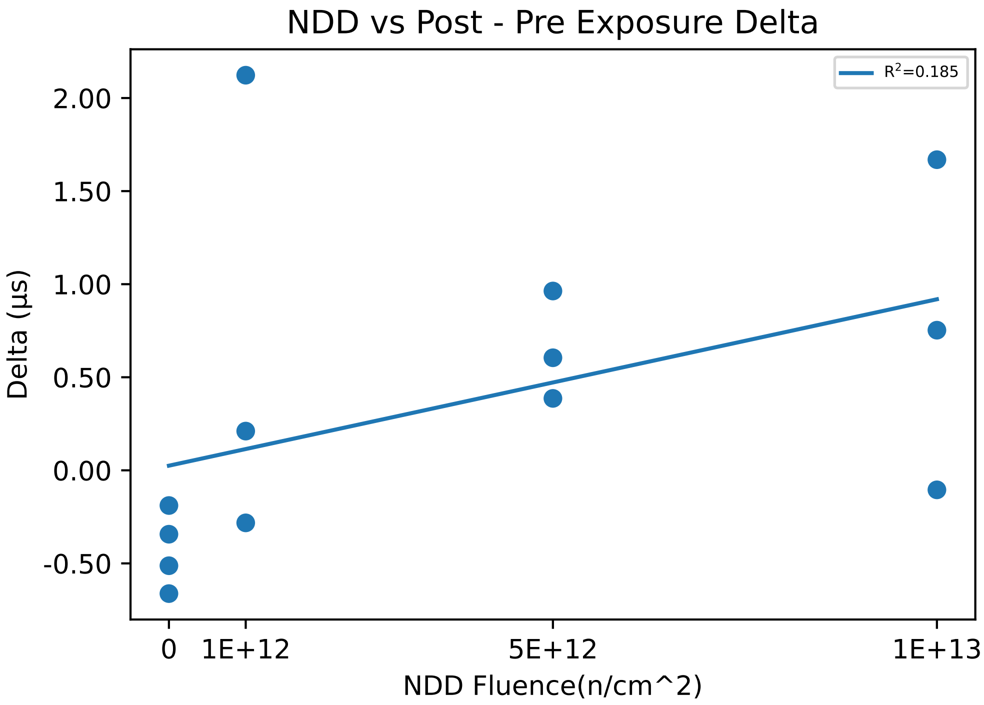
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	44.78	44.538	-0.2416
65	1e+12	NDD unbiased	41.322	41.632	0.3092
66	1e+12	NDD unbiased	40.944	40.57	-0.3734
67	1e+13	NDD unbiased	39.341	40.422	1.081
68	1e+13	NDD unbiased	40.047	40.223	0.1756
70	1e+13	NDD unbiased	42.051	42.725	0.6741
71	5e+12	NDD unbiased	39.03	38.941	-0.0893
72	5e+12	NDD unbiased	38.486	39.377	0.8901
73	5e+12	NDD unbiased	38.661	38.82	0.1599
187	0	Correlation	40.104	40.803	0.699
188	0	Correlation	45.351	44.419	-0.9321
189	0	Correlation	42.585	42.091	-0.4935
190	0	Correlation	39.082	38.484	-0.598

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	39.082	41.78	45.351	2.798	38.484	41.449	44.419	2.4793	-0.9321	-0.33115	0.699	0.71179
1e+12	40.944	42.349	44.78	2.1139	40.57	42.247	44.538	2.0541	-0.3734	-0.10193	0.3092	0.3621
5e+12	38.486	38.726	39.03	0.27785	38.82	39.046	39.377	0.29246	-0.0893	0.32023	0.8901	0.50901
1e+13	39.341	40.48	42.051	1.4059	40.223	41.123	42.725	1.3909	0.1756	0.64357	1.081	0.45347

Device Test: 13.27 T_EN_DELAY(THRESHOLD|DELAY/EN/7/0.6//10//@T_EN_DELAY)





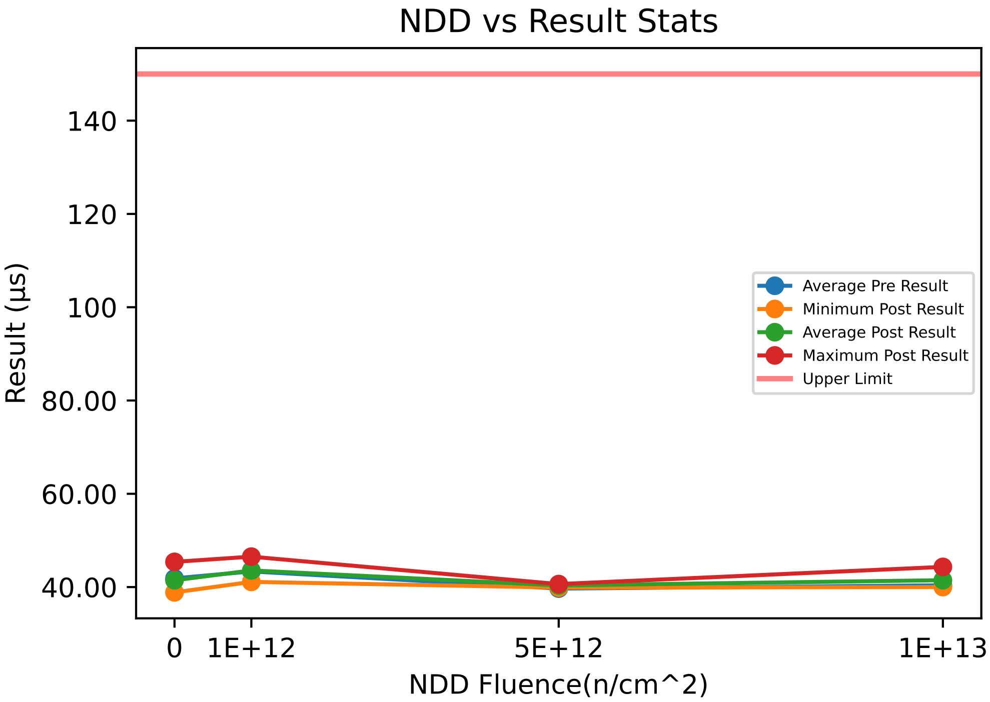
Test Results (Upper Limit = 150.0 (µs))

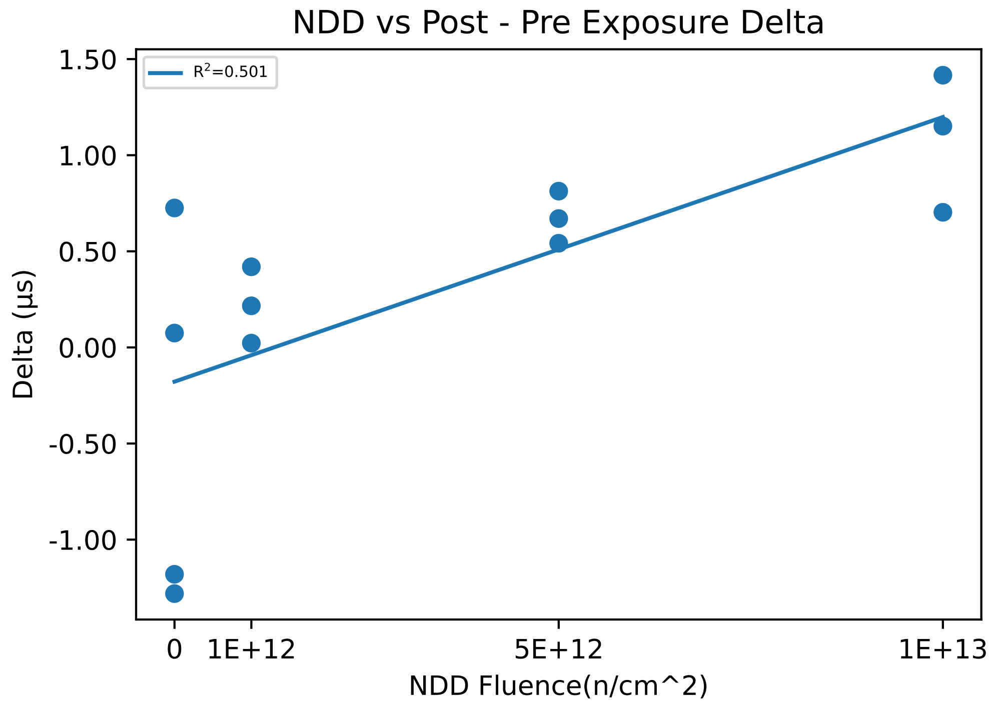
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	45.412	45.622	0.2107
65	1e+12	NDD unbiased	41.496	43.619	2.1227
66	1e+12	NDD unbiased	40.909	40.626	-0.2823
67	1e+13	NDD unbiased	39.302	39.197	-0.1049
68	1e+13	NDD unbiased	39.72	40.473	0.7528
70	1e+13	NDD unbiased	42.187	43.856	1.6688
71	5e+12	NDD unbiased	38.828	39.791	0.9633
72	5e+12	NDD unbiased	39.167	39.771	0.6047
73	5e+12	NDD unbiased	39.8	40.186	0.3864
187	0	Correlation	40.41	39.748	-0.6623
188	0	Correlation	45.379	45.035	-0.3433
189	0	Correlation	41.054	40.865	-0.1891
190	0	Correlation	39.486	38.974	-0.5125

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	39.486	41.582	45.379	2.6114	38.974	41.156	45.035	2.7005	-0.6623	-0.4268	-0.1891	0.20517
1e+12	40.909	42.606	45.412	2.4479	40.626	43.289	45.622	2.5143	-0.2823	0.6837	2.1227	1.2704
5e+12	38.828	39.265	39.8	0.49333	39.771	39.916	40.186	0.23401	0.3864	0.65147	0.9633	0.29128
1e+13	39.302	40.403	42.187	1.5592	39.197	41.175	43.856	2.4075	-0.1049	0.77223	1.6688	0.88701

Device Test: 13.28 T_EN_DELAY(THRESHOLD|DELAY/EN/12/0.6//10//@T_EN_DELAY)





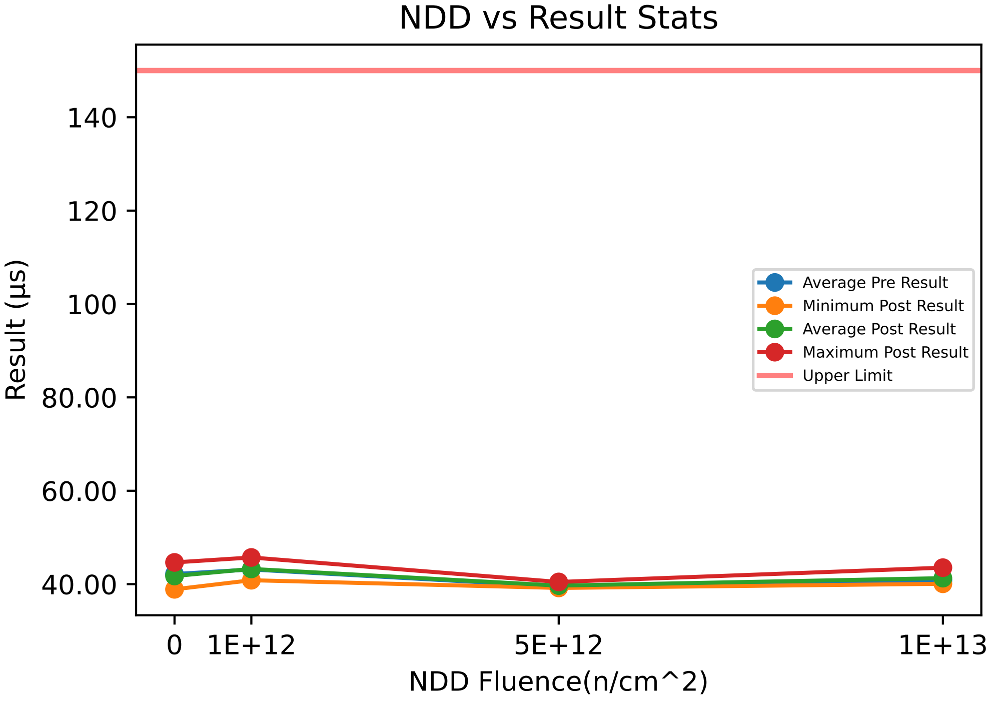
Test Results (Upper Limit = 150.0 (µs))

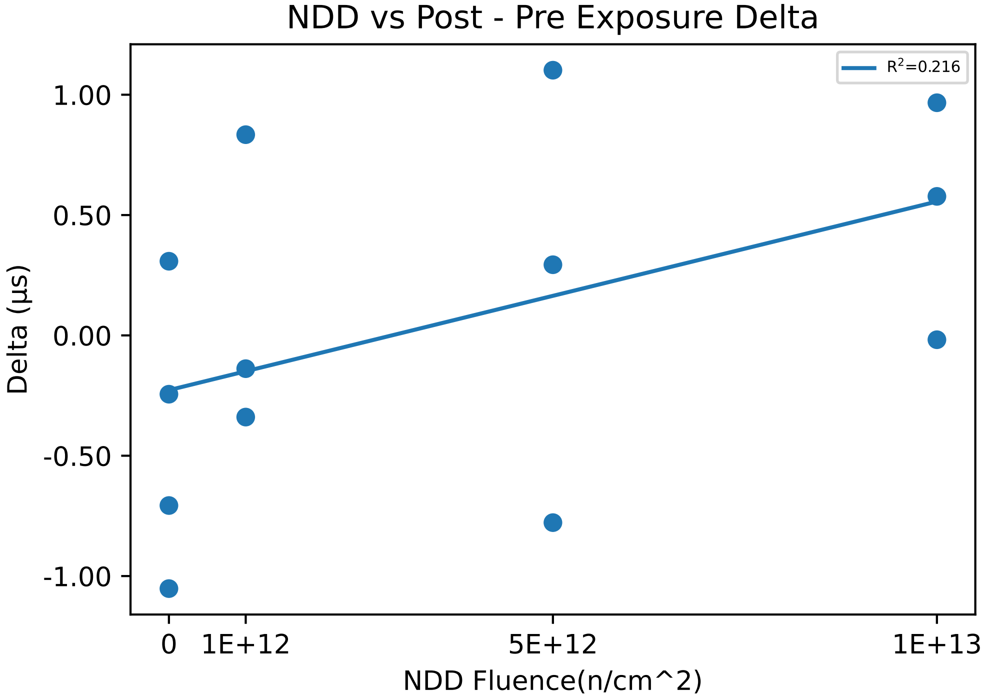
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	46.306	46.523	0.2164
65	1e+12	NDD unbiased	42.658	43.077	0.4194
66	1e+12	NDD unbiased	41.093	41.115	0.0224
67	1e+13	NDD unbiased	39.297	40	0.703
68	1e+13	NDD unbiased	38.942	40.093	1.1512
70	1e+13	NDD unbiased	42.91	44.326	1.4162
71	5e+12	NDD unbiased	39.083	39.896	0.813
72	5e+12	NDD unbiased	39.991	40.532	0.542
73	5e+12	NDD unbiased	39.972	40.643	0.6703
187	0	Correlation	41.337	40.056	-1.2808
188	0	Correlation	44.681	45.406	0.7254
189	0	Correlation	42.672	41.491	-1.1804
190	0	Correlation	38.785	38.859	0.0748

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	38.785	41.868	44.681	2.4729	38.859	41.453	45.406	2.8464	-1.2808	-0.41525	0.7254	0.97909
1e+12	41.093	43.352	46.306	2.6753	41.115	43.572	46.523	2.7375	0.0224	0.2194	0.4194	0.19852
5e+12	39.083	39.682	39.991	0.51857	39.896	40.357	40.643	0.40285	0.542	0.6751	0.813	0.13556
1e+13	38.942	40.383	42.91	2.1954	40	41.473	44.326	2.471	0.703	1.0901	1.4162	0.3605

Device Test: 13.29 T_EN_DELAY(THRESHOLD|DELAY/EN/14/0.6//10//@T_EN_DELAY)





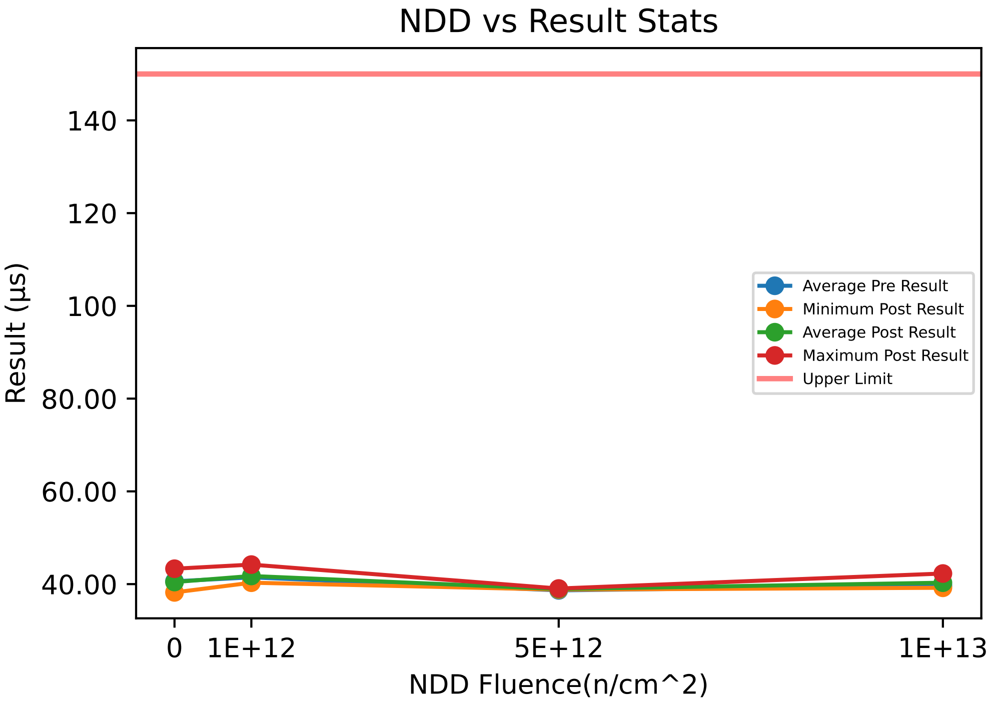
Test Results (Upper Limit = 150.0 (µs))

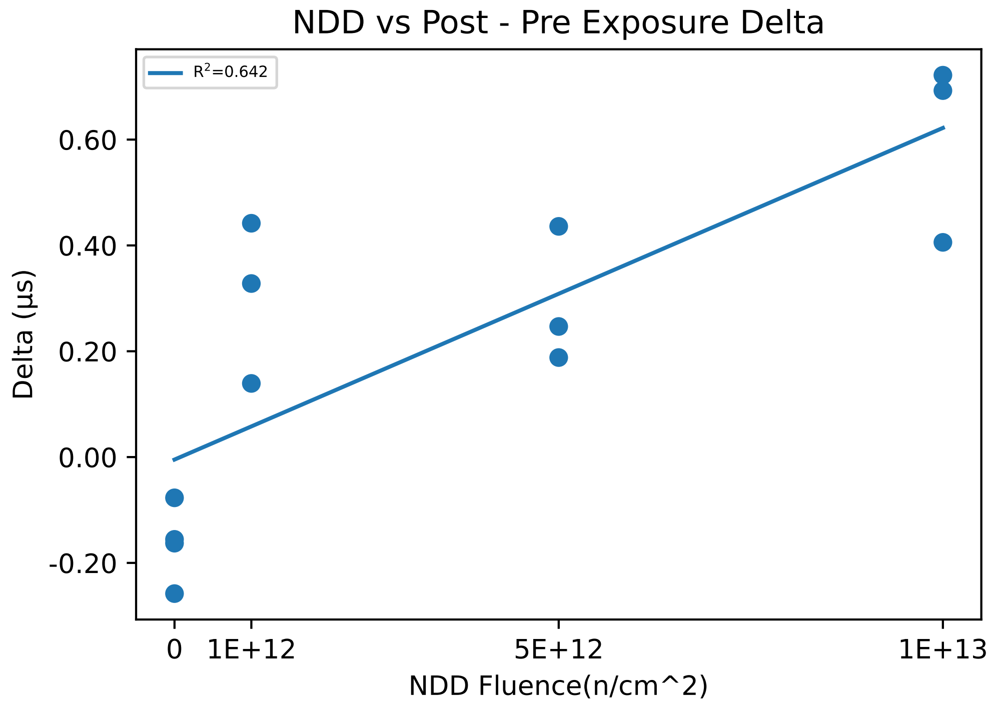
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	46.051	45.712	-0.3394
65	1e+12	NDD unbiased	42.395	43.229	0.834
66	1e+12	NDD unbiased	40.976	40.838	-0.1383
67	1e+13	NDD unbiased	39.497	40.075	0.5776
68	1e+13	NDD unbiased	39.287	40.254	0.9667
70	1e+13	NDD unbiased	43.546	43.528	-0.018
71	5e+12	NDD unbiased	39.965	39.187	-0.778
72	5e+12	NDD unbiased	39.098	39.391	0.2936
73	5e+12	NDD unbiased	39.367	40.469	1.1019
187	0	Correlation	41.637	40.93	-0.7069
188	0	Correlation	45.705	44.652	-1.0521
189	0	Correlation	42.182	42.49	0.3081
190	0	Correlation	39.136	38.892	-0.2444

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	39.136	42.165	45.705	2.707	38.892	41.741	44.652	2.4369	-1.0521	-0.42383	0.3081	0.58957
1e+12	40.976	43.141	46.051	2.6185	40.838	43.26	45.712	2.4372	-0.3394	0.11877	0.834	0.62752
5e+12	39.098	39.477	39.965	0.44396	39.187	39.683	40.469	0.68896	-0.778	0.20583	1.1019	0.94302
1e+13	39.287	40.777	43.546	2.4005	40.075	41.286	43.528	1.9441	-0.018	0.50877	0.9667	0.49595

Device Test: 13.30 T_EN_DELAY(THRESHOLD|DELAY/EN/7/5//10//@T_EN_DELAY)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

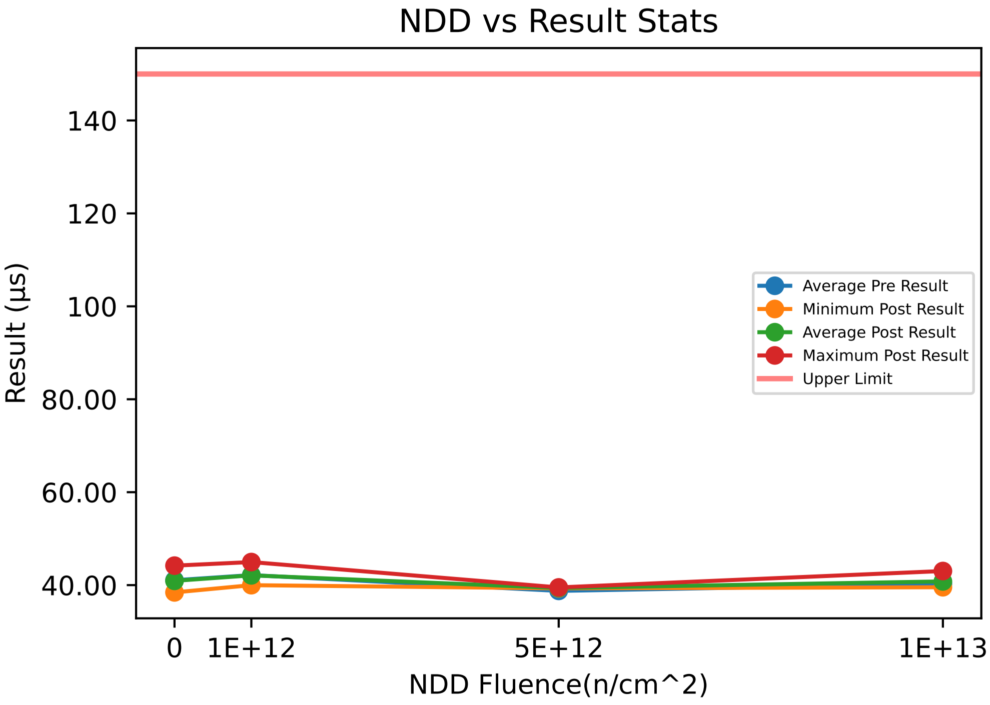
Test Results (Upper Limit = 150.0 (µs))

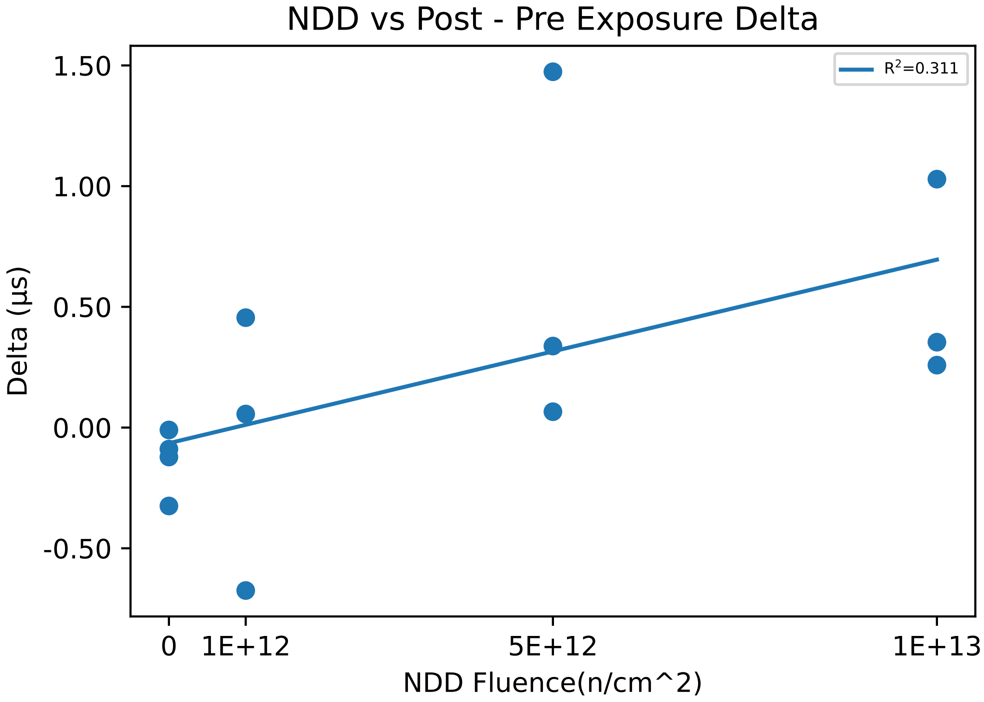
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	43.879	44.207	0.328
65	1e+12	NDD unbiased	40.608	40.747	0.1392
66	1e+12	NDD unbiased	39.861	40.303	0.4419
67	1e+13	NDD unbiased	38.484	39.206	0.7217
68	1e+13	NDD unbiased	39.018	39.423	0.4058
70	1e+13	NDD unbiased	41.59	42.283	0.6926
71	5e+12	NDD unbiased	38.77	38.958	0.1881
72	5e+12	NDD unbiased	38.616	39.052	0.436
73	5e+12	NDD unbiased	38.567	38.814	0.2468
187	0	Correlation	39.81	39.733	-0.077
188	0	Correlation	43.577	43.319	-0.258
189	0	Correlation	40.67	40.515	-0.1555
190	0	Correlation	38.375	38.213	-0.1627

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	38.375	40.608	43.577	2.1938	38.213	40.445	43.319	2.1411	-0.258	-0.1633	-0.077	0.07411
1e+12	39.861	41.45	43.879	2.1371	40.303	41.753	44.207	2.1374	0.1392	0.30303	0.4419	0.15289
5e+12	38.567	38.651	38.77	0.10614	38.814	38.941	39.052	0.12006	0.1881	0.2903	0.436	0.12955
1e+13	38.484	39.697	41.59	1.6609	39.206	40.304	42.283	1.7172	0.4058	0.6067	0.7217	0.17459

Device Test: 13.31 T_EN_DELAY(THRESHOLD|DELAY/EN/12/5//10//@T_EN_DELAY)





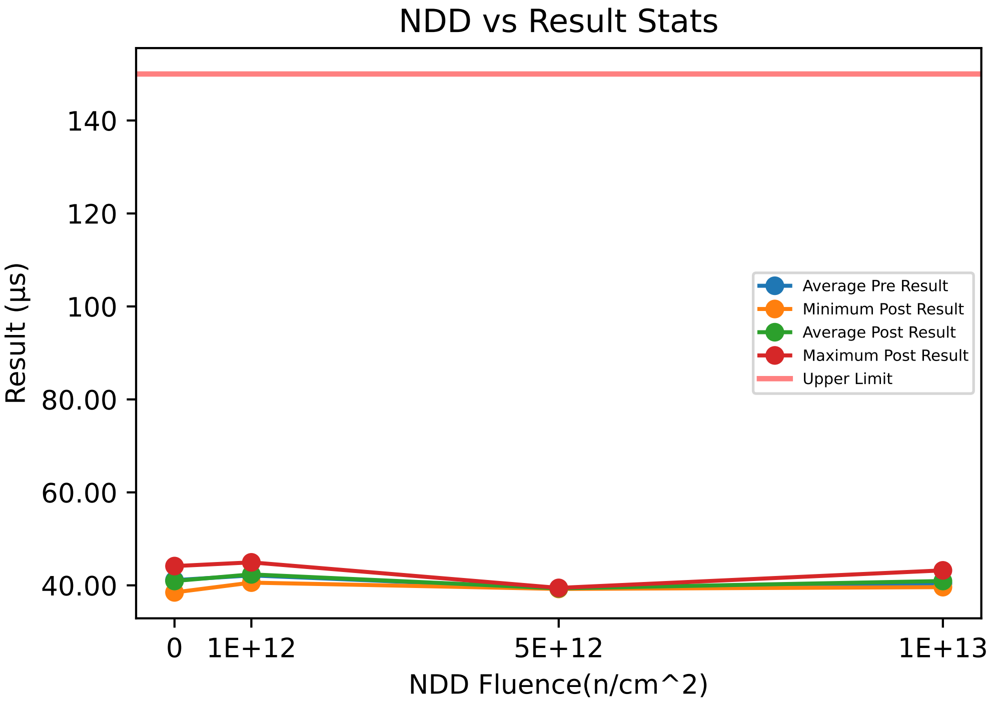
Test Results (Upper Limit = 150.0 (µs))

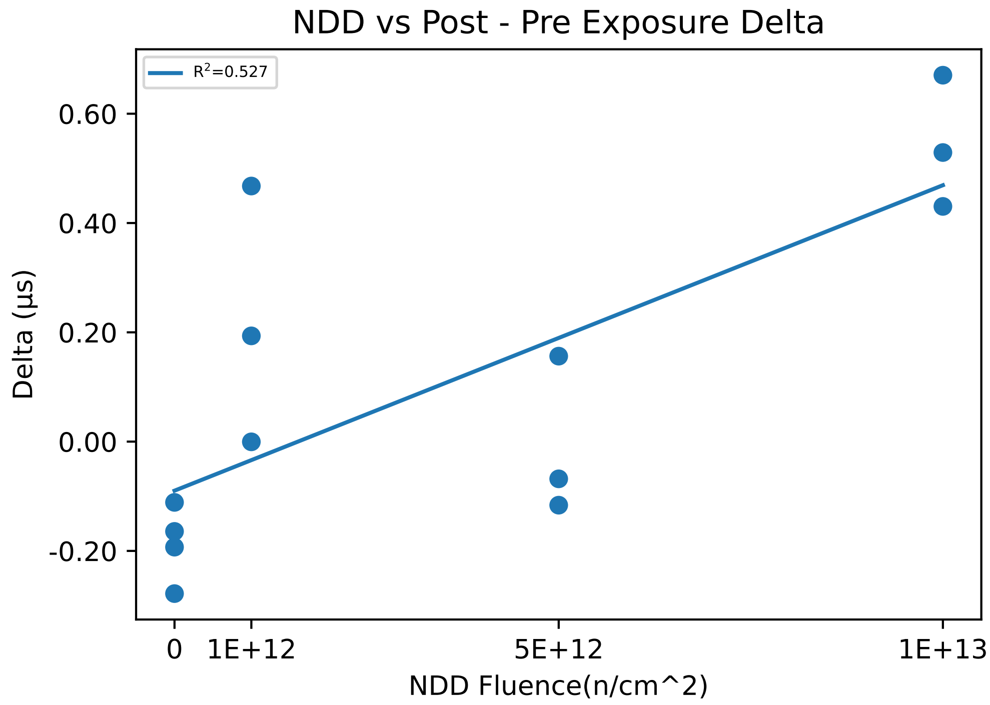
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	44.507	44.962	0.4552
65	1e+12	NDD unbiased	41.297	41.353	0.0561
66	1e+12	NDD unbiased	40.663	39.988	-0.6749
67	1e+13	NDD unbiased	39.285	39.543	0.2586
68	1e+13	NDD unbiased	39.466	39.82	0.3537
70	1e+13	NDD unbiased	42.003	43.032	1.029
71	5e+12	NDD unbiased	37.836	39.31	1.4738
72	5e+12	NDD unbiased	39.166	39.503	0.3377
73	5e+12	NDD unbiased	39.28	39.346	0.0657
187	0	Correlation	40.288	40.199	-0.0892
188	0	Correlation	44.2	44.19	-0.0099
189	0	Correlation	41.167	40.843	-0.3247
190	0	Correlation	38.555	38.433	-0.1219

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	38.555	41.052	44.2	2.3623	38.433	40.916	44.19	2.4086	-0.3247	-0.13642	-0.0099	0.13404
1e+12	40.663	42.156	44.507	2.0608	39.988	42.101	44.962	2.57	-0.6749	-0.054533	0.4552	0.57312
5e+12	37.836	38.761	39.28	0.80278	39.31	39.387	39.503	0.10282	0.0657	0.62573	1.4738	0.74693
1e+13	39.285	40.251	42.003	1.5197	39.543	40.798	43.032	1.9393	0.2586	0.5471	1.029	0.42004

Device Test: 13.32 T_EN_DELAY(THRESHOLD|DELAY/EN/14/5//10//@T_EN_DELAY)





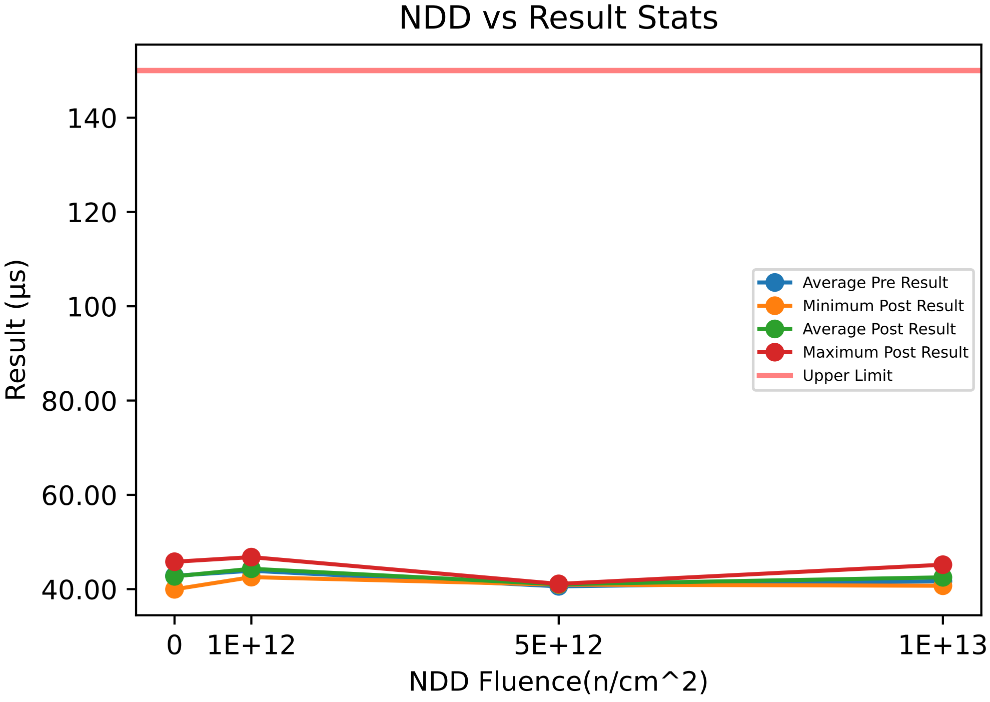
Test Results (Upper Limit = 150.0 (µs))

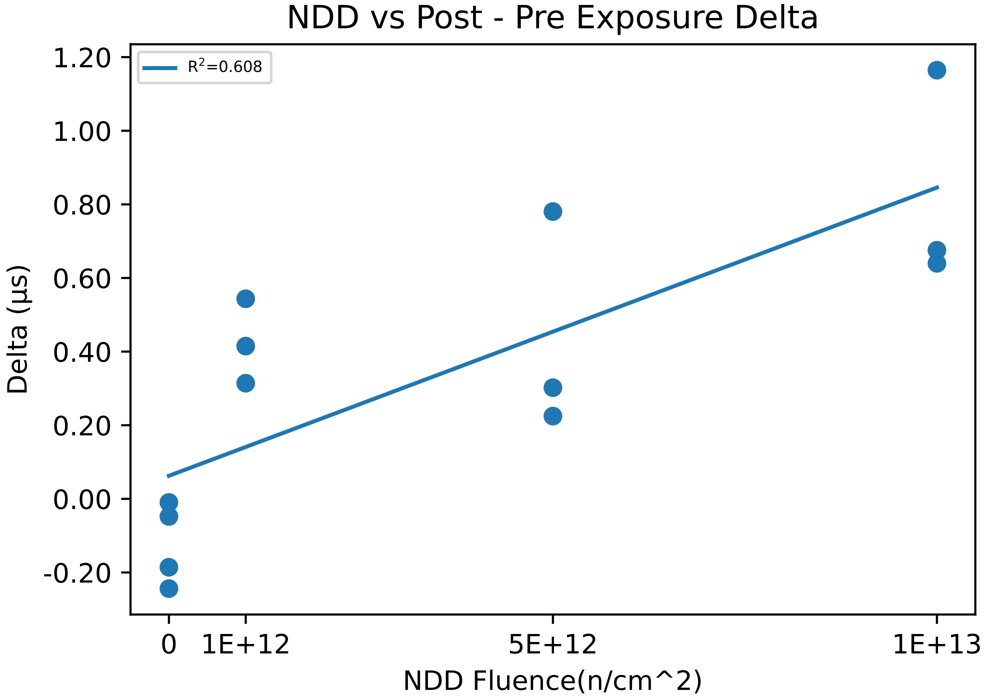
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	44.945	44.944	-0.0004
65	1e+12	NDD unbiased	41.344	41.538	0.1935
66	1e+12	NDD unbiased	40.119	40.587	0.4677
67	1e+13	NDD unbiased	39.084	39.613	0.529
68	1e+13	NDD unbiased	39.529	39.959	0.4304
70	1e+13	NDD unbiased	42.55	43.22	0.6705
71	5e+12	NDD unbiased	39.441	39.373	-0.0681
72	5e+12	NDD unbiased	39.343	39.226	-0.1163
73	5e+12	NDD unbiased	39.294	39.451	0.1564
187	0	Correlation	40.307	40.029	-0.2781
188	0	Correlation	44.254	44.143	-0.1112
189	0	Correlation	41.246	41.082	-0.1643
190	0	Correlation	38.675	38.482	-0.1931

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	38.675	41.121	44.254	2.3436	38.482	40.934	44.143	2.391	-0.2781	-0.18667	-0.1112	0.069754
1e+12	40.119	42.136	44.945	2.5084	40.587	42.356	44.944	2.2912	-0.0004	0.22027	0.4677	0.2352
5e+12	39.294	39.359	39.441	0.074992	39.226	39.35	39.451	0.11404	-0.1163	-0.0093333	0.1564	0.14554
1e+13	39.084	40.387	42.55	1.8857	39.613	40.931	43.22	1.9903	0.4304	0.5433	0.6705	0.12069

Device Test: 13.33 T_EN_DELAY(THRESHOLD|DELAY/EN/14/13.9//10//@T_EN_DELAY)





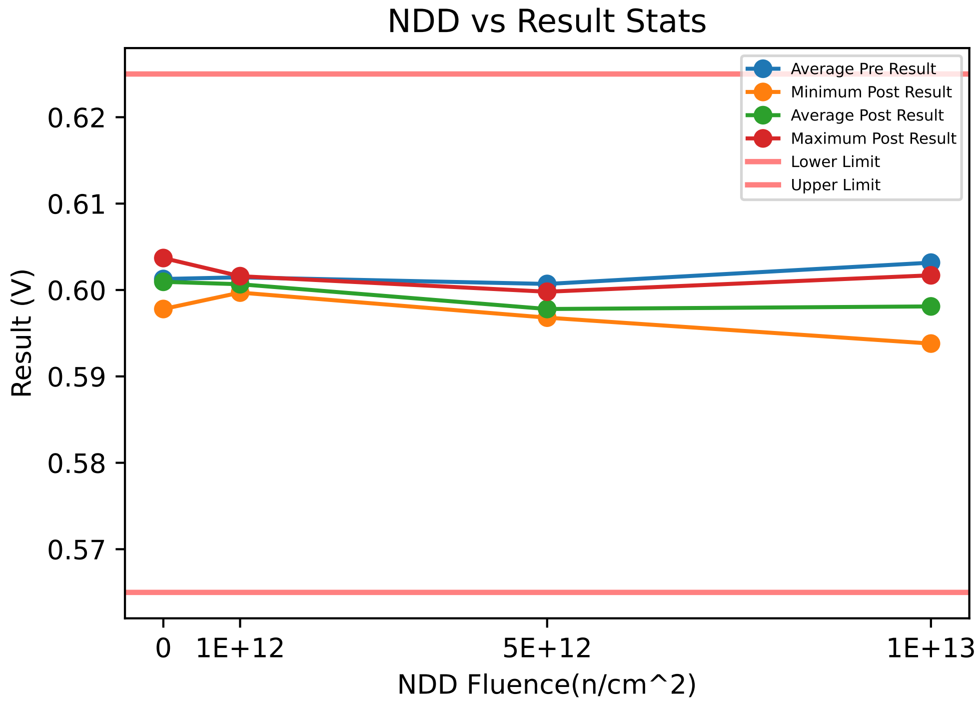
Test Results (Upper Limit = 150.0 (µs))

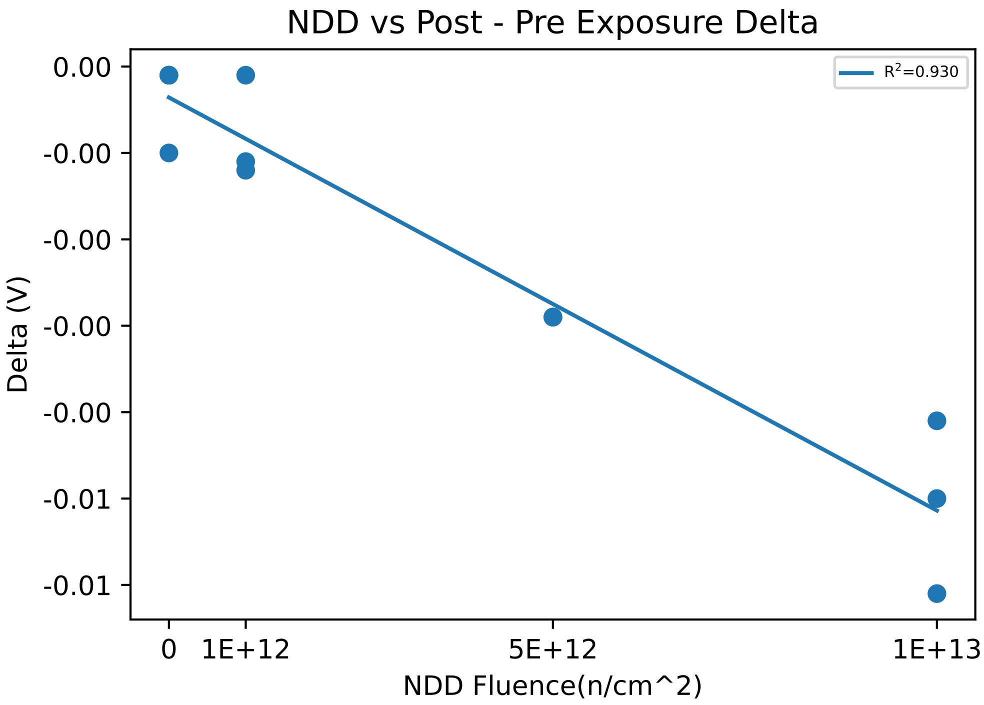
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	46.374	46.789	0.415
65	1e+12	NDD unbiased	43.096	43.639	0.5435
66	1e+12	NDD unbiased	42.23	42.544	0.3142
67	1e+13	NDD unbiased	40.043	40.719	0.6754
68	1e+13	NDD unbiased	40.976	41.616	0.6398
70	1e+13	NDD unbiased	44.015	45.18	1.1645
71	5e+12	NDD unbiased	40.791	41.016	0.2248
72	5e+12	NDD unbiased	40.334	41.115	0.7805
73	5e+12	NDD unbiased	40.65	40.952	0.302
187	0	Correlation	42.05	42.041	-0.0097
188	0	Correlation	45.997	45.811	-0.1858
189	0	Correlation	43.258	43.014	-0.2438
190	0	Correlation	40.009	39.961	-0.0478

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	40.009	42.828	45.997	2.5019	39.961	42.707	45.811	2.43	-0.2438	-0.12177	-0.0097	0.11109
1e+12	42.23	43.9	46.374	2.186	42.544	44.324	46.789	2.2038	0.3142	0.42423	0.5435	0.11493
5e+12	40.334	40.592	40.791	0.23388	40.952	41.028	41.115	0.08194	0.2248	0.43577	0.7805	0.30103
1e+13	40.043	41.678	44.015	2.077	40.719	42.505	45.18	2.3597	0.6398	0.82657	1.1645	0.2932

Device Test: 13.4 VIH_EN(THRESHOLD|RISE/EN/3.3/0.6//10//@VIH_EN)





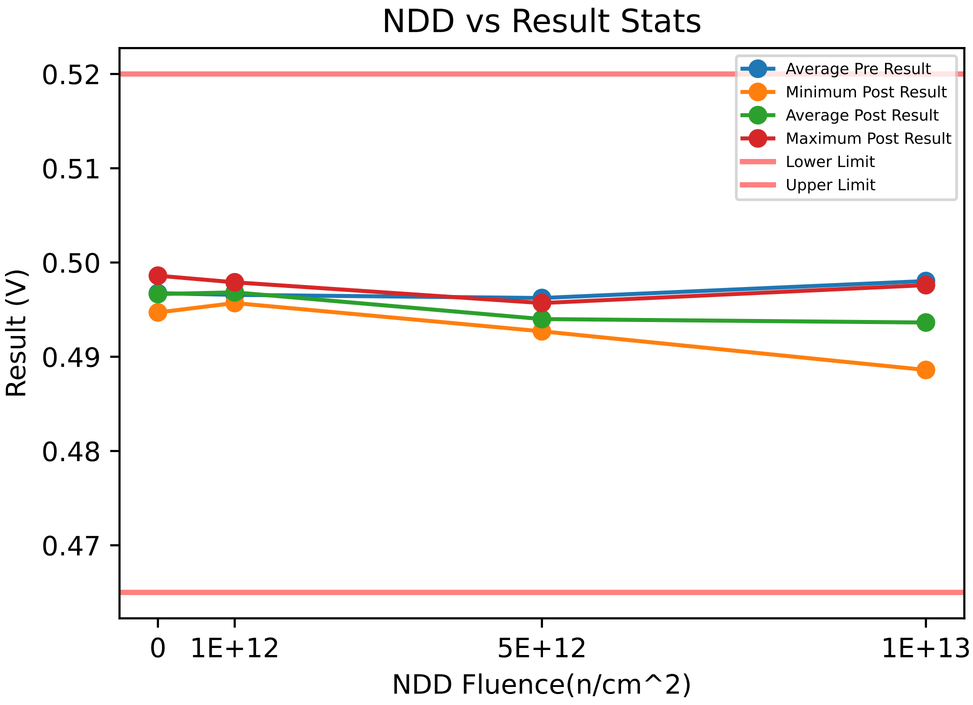
Test Results (Lower Limit = 0.565, Upper Limit = 0.625 (V))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.6008	0.5997	-0.0011
65	1e+12	NDD unbiased	0.6008	0.6007	-0.0001
66	1e+12	NDD unbiased	0.6028	0.6016	-0.0012
67	1e+13	NDD unbiased	0.5988	0.5938	-0.005
68	1e+13	NDD unbiased	0.6049	0.5988	-0.0061
70	1e+13	NDD unbiased	0.6058	0.6017	-0.0041
71	5e+12	NDD unbiased	0.5997	0.5968	-0.0029
72	5e+12	NDD unbiased	0.5997	0.5968	-0.0029
73	5e+12	NDD unbiased	0.6027	0.5998	-0.0029
187	0	Correlation	0.6037	0.6036	-0.0001
188	0	Correlation	0.5988	0.5987	-0.0001
189	0	Correlation	0.6038	0.6037	-0.0001
190	0	Correlation	0.5988	0.5978	-0.001

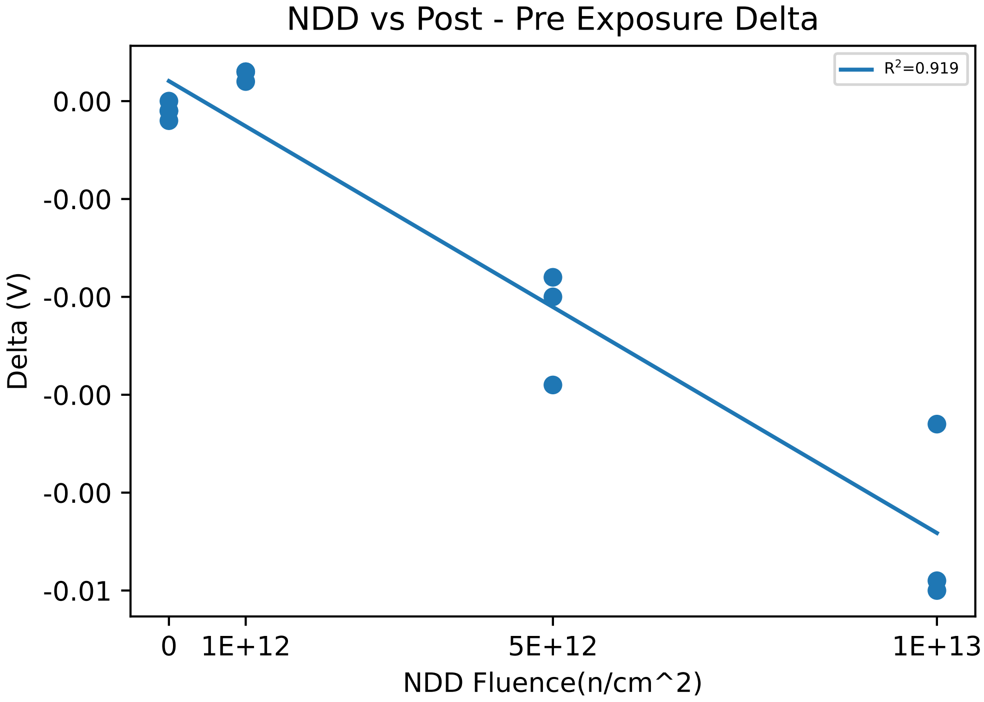
Test Statistics (V)

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	0.5988	0.60128	0.6038	0.0028582	0.5978	0.60095	0.6037	0.0031395	-0.001	-0.000325	-0.0001	0.00045
1e+12	0.6008	0.60147	0.6028	0.0011547	0.5997	0.60067	0.6016	0.00095044	-0.0012	-0.0008	-0.0001	0.00060828
5e+12	0.5997	0.6007	0.6027	0.0017321	0.5968	0.5978	0.5998	0.0017321	-0.0029	-0.0029	-0.0029	0
1e+13	0.5988	0.60317	0.6058	0.0038083	0.5938	0.5981	0.6017	0.0039962	-0.0061	-0.0050667	-0.0041	0.0010017

Device Test: 13.5 VIL_EN(THRESHOLD|FALL/EN/3.3/0.6//10//@VIL_EN)



NDD vs Result Stats



NDD vs Post - Pre Exposure Delta

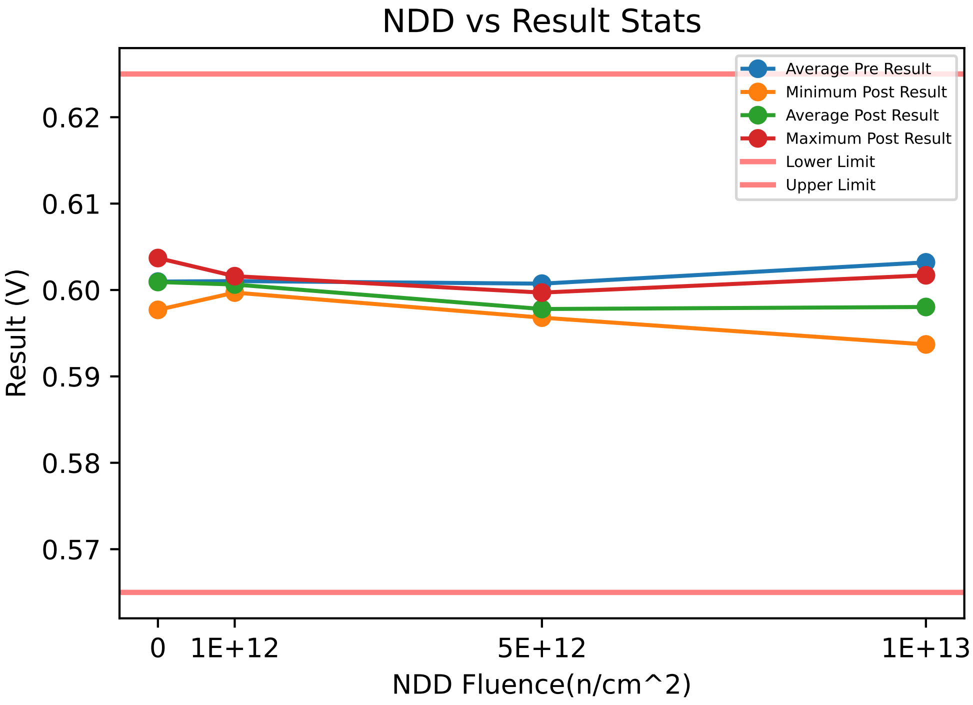
Test Results (Lower Limit = 0.465, Upper Limit = 0.52 (V))

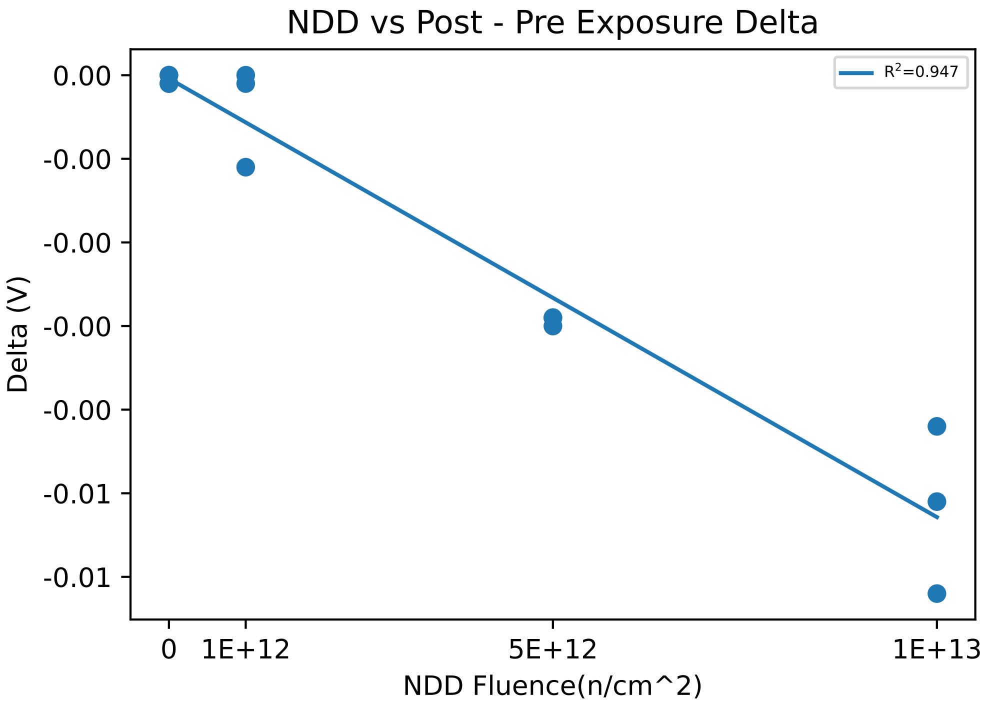
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.4955	0.4957	0.0002
65	1e+12	NDD unbiased	0.4966	0.4969	0.0003
66	1e+12	NDD unbiased	0.4976	0.4979	0.0003
67	1e+13	NDD unbiased	0.4936	0.4886	-0.005
68	1e+13	NDD unbiased	0.4996	0.4947	-0.0049
70	1e+13	NDD unbiased	0.5009	0.4976	-0.0033
71	5e+12	NDD unbiased	0.4956	0.4927	-0.0029
72	5e+12	NDD unbiased	0.4956	0.4936	-0.002
73	5e+12	NDD unbiased	0.4975	0.4957	-0.0018
187	0	Correlation	0.4987	0.4986	-0.0001
188	0	Correlation	0.4949	0.4947	-0.0002
189	0	Correlation	0.4987	0.4986	-0.0001
190	0	Correlation	0.4947	0.4947	0

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	0.4947	0.49675	0.4987	0.0022531	0.4947	0.49665	0.4986	0.0022517	-0.0002	-0.0001	0	8.165e-05
1e+12	0.4955	0.49657	0.4976	0.0010504	0.4957	0.49683	0.4979	0.0011015	0.0002	0.00026667	0.0003	5.7735e-05
5e+12	0.4956	0.49623	0.4975	0.001097	0.4927	0.494	0.4957	0.0015395	-0.0029	-0.0022333	-0.0018	0.00058595
1e+13	0.4936	0.49803	0.5009	0.003894	0.4886	0.49363	0.4976	0.0045938	-0.005	-0.0044	-0.0033	0.00095394

Device Test: 13.7 VIH_EN(THRESHOLD|RISE/EN/5/0.6//10//@VIH_EN)





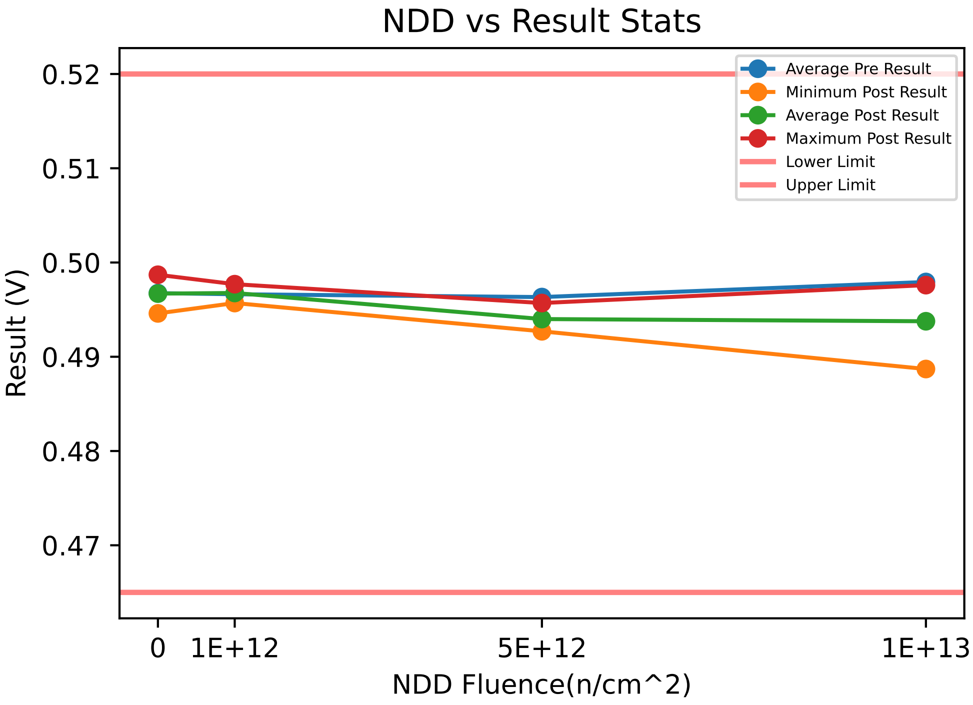
Test Results (Lower Limit = 0.565, Upper Limit = 0.625 (V))

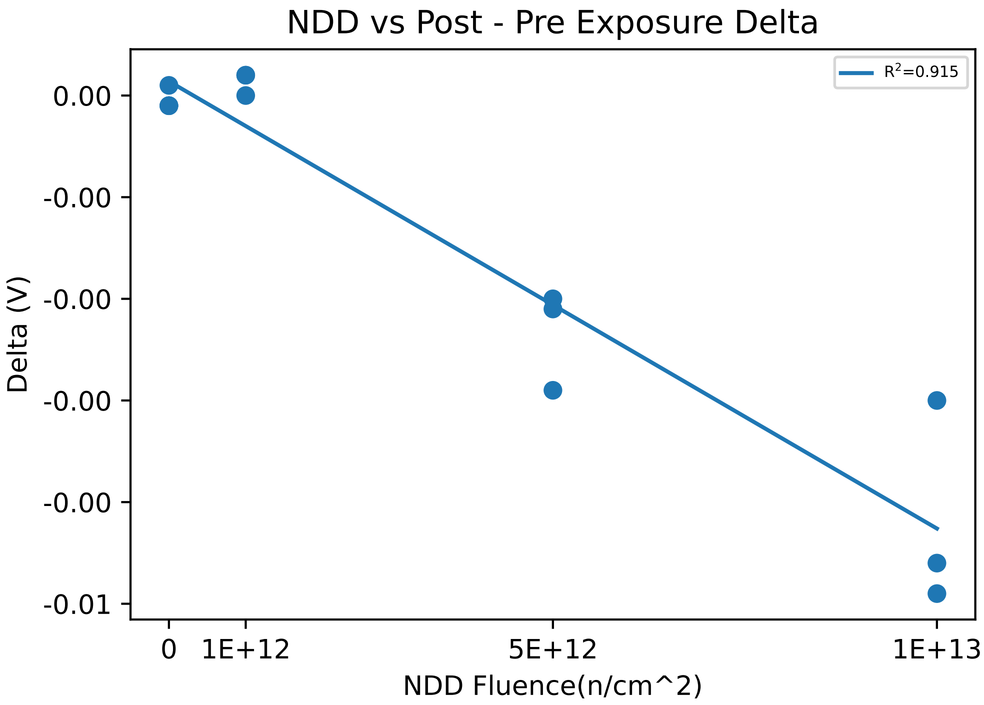
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5997	0.5997	0
65	1e+12	NDD unbiased	0.6007	0.6006	-0.0001
66	1e+12	NDD unbiased	0.6027	0.6016	-0.0011
67	1e+13	NDD unbiased	0.5988	0.5937	-0.0051
68	1e+13	NDD unbiased	0.6049	0.5987	-0.0062
70	1e+13	NDD unbiased	0.6059	0.6017	-0.0042
71	5e+12	NDD unbiased	0.5997	0.5968	-0.0029
72	5e+12	NDD unbiased	0.5998	0.5969	-0.0029
73	5e+12	NDD unbiased	0.6027	0.5997	-0.003
187	0	Correlation	0.6037	0.6036	-0.0001
188	0	Correlation	0.5987	0.5987	0
189	0	Correlation	0.6037	0.6037	0
190	0	Correlation	0.5978	0.5977	-0.0001

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	0.5978	0.60098	0.6037	0.0031679	0.5977	0.60093	0.6037	0.0031732	-0.0001	-5e-05	0	5.7735e-05
1e+12	0.5997	0.60103	0.6027	0.0015275	0.5997	0.60063	0.6016	0.00095044	-0.0011	-0.0004	0	0.00060828
5e+12	0.5997	0.60073	0.6027	0.0017039	0.5968	0.5978	0.5997	0.0016462	-0.003	-0.0029333	-0.0029	5.7735e-05
1e+13	0.5988	0.6032	0.6059	0.0038432	0.5937	0.59803	0.6017	0.0040415	-0.0062	-0.0051667	-0.0042	0.0010017

Device Test: 13.8 VIL_EN(THRESHOLD|FALL/EN/5/0.6//10//@VIL_EN)





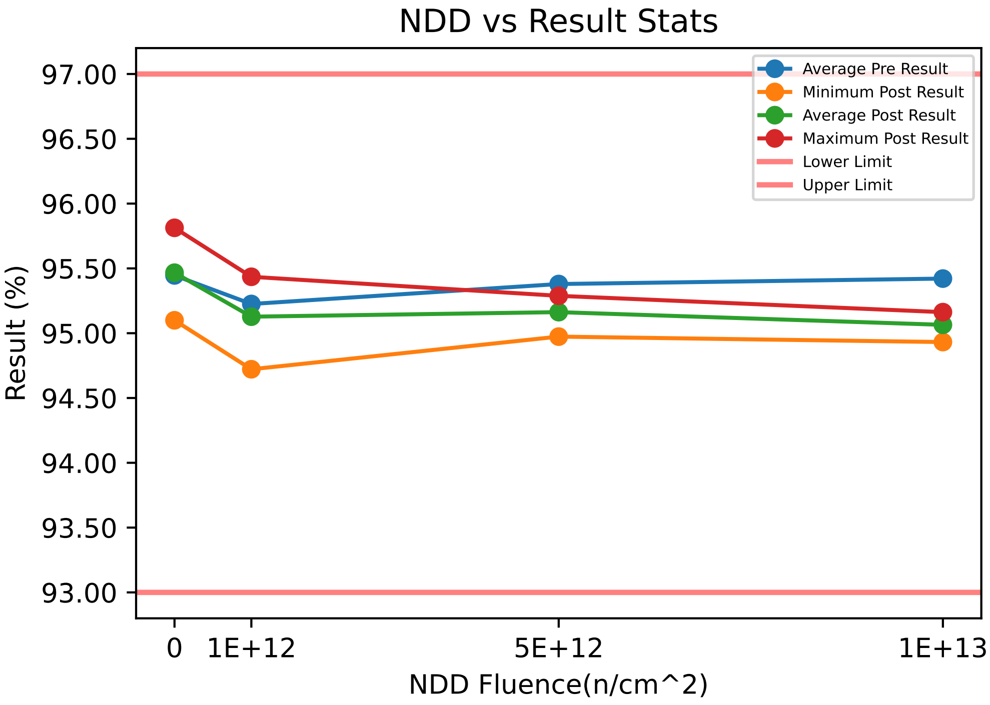
Test Results (Lower Limit = 0.465, Upper Limit = 0.52 (V))

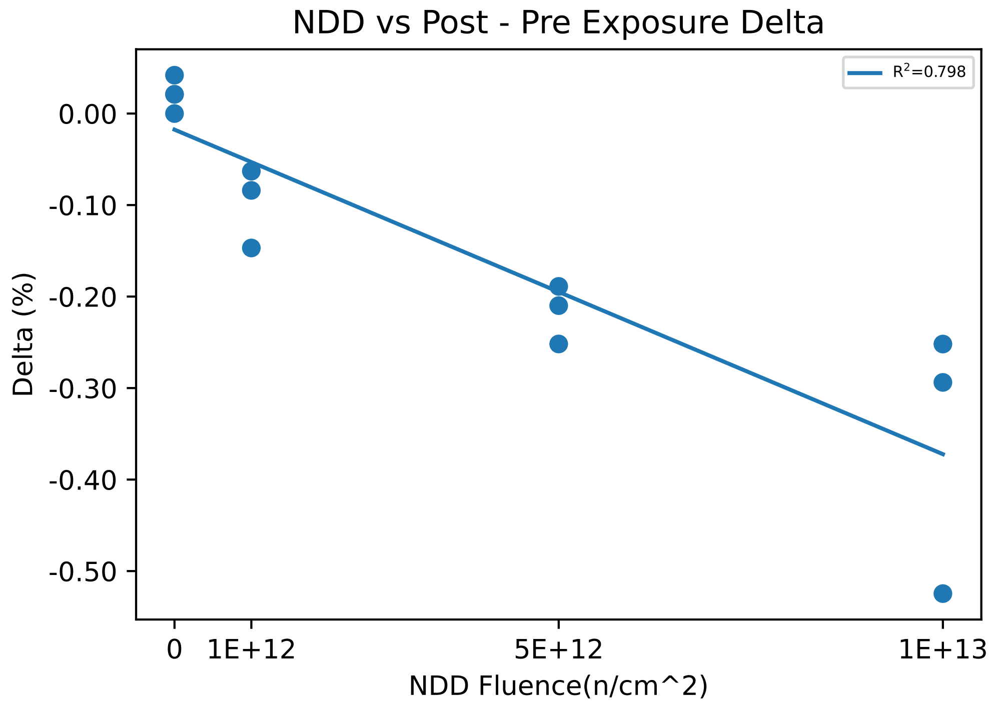
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.4955	0.4957	0.0002
65	1e+12	NDD unbiased	0.4967	0.4969	0.0002
66	1e+12	NDD unbiased	0.4977	0.4977	0
67	1e+13	NDD unbiased	0.4936	0.4887	-0.0049
68	1e+13	NDD unbiased	0.4996	0.495	-0.0046
70	1e+13	NDD unbiased	0.5006	0.4976	-0.003
71	5e+12	NDD unbiased	0.4956	0.4927	-0.0029
72	5e+12	NDD unbiased	0.4957	0.4936	-0.0021
73	5e+12	NDD unbiased	0.4977	0.4957	-0.002
187	0	Correlation	0.4986	0.4987	0.0001
188	0	Correlation	0.4947	0.4946	-0.0001
189	0	Correlation	0.4987	0.4986	-0.0001
190	0	Correlation	0.495	0.4949	-0.0001

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	0.4947	0.49675	0.4987	0.0021977	0.4946	0.4967	0.4987	0.0022554	-0.0001	-5e-05	0.0001	0.0001
1e+12	0.4955	0.49663	0.4977	0.0011015	0.4957	0.49677	0.4977	0.0010066	0	0.00013333	0.0002	0.00011547
5e+12	0.4956	0.49633	0.4977	0.0011846	0.4927	0.494	0.4957	0.0015395	-0.0029	-0.0023333	-0.002	0.00049329
1e+13	0.4936	0.49793	0.5006	0.0037859	0.4887	0.49377	0.4976	0.0045764	-0.0049	-0.0041667	-0.003	0.0010214

Device Test: 14.1 VPG_RISE(THRESHOLD|RISE/FB/2.25/0.6//10//@VPG_RISE)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

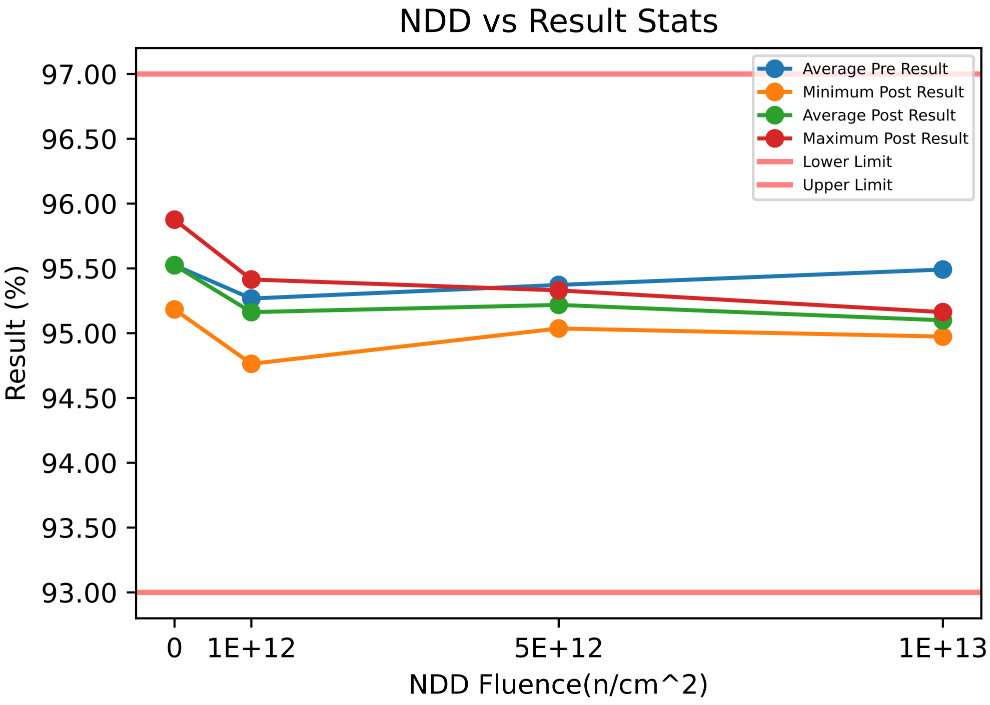
Test Results (Lower Limit = 93.0, Upper Limit = 97.0 (%))

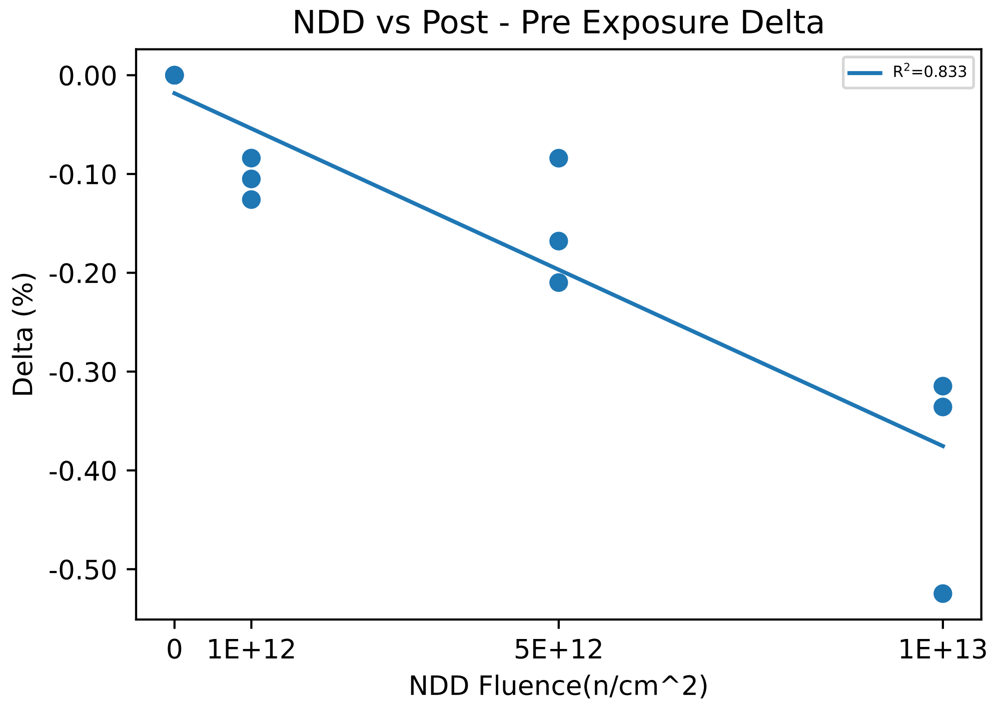
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	94.806	94.722	-0.084
65	1e+12	NDD unbiased	95.498	95.435	-0.063
66	1e+12	NDD unbiased	95.372	95.225	-0.1469
67	1e+13	NDD unbiased	95.225	94.932	-0.2938
68	1e+13	NDD unbiased	95.414	95.162	-0.2519
70	1e+13	NDD unbiased	95.624	95.1	-0.5246
71	5e+12	NDD unbiased	95.498	95.288	-0.2099
72	5e+12	NDD unbiased	95.414	95.225	-0.1889
73	5e+12	NDD unbiased	95.225	94.974	-0.2518
187	0	Correlation	95.351	95.372	0.021
188	0	Correlation	95.792	95.813	0.021
189	0	Correlation	95.54	95.582	0.0419
190	0	Correlation	95.1	95.1	0

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	95.1	95.446	95.792	0.29304	95.1	95.467	95.813	0.30386	0	0.020975	0.0419	0.017106
1e+12	94.806	95.226	95.498	0.36888	94.722	95.128	95.435	0.3667	-0.1469	-0.097967	-0.063	0.043659
5e+12	95.225	95.379	95.498	0.13973	94.974	95.163	95.288	0.16653	-0.2518	-0.21687	-0.1889	0.032023
1e+13	95.225	95.421	95.624	0.19944	94.932	95.065	95.162	0.11931	-0.5246	-0.35677	-0.2519	0.14685

Device Test: 14.10 VPG_RISE(THRESHOLD|RISE/FB/7/0.6//10//@VPG_RISE)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

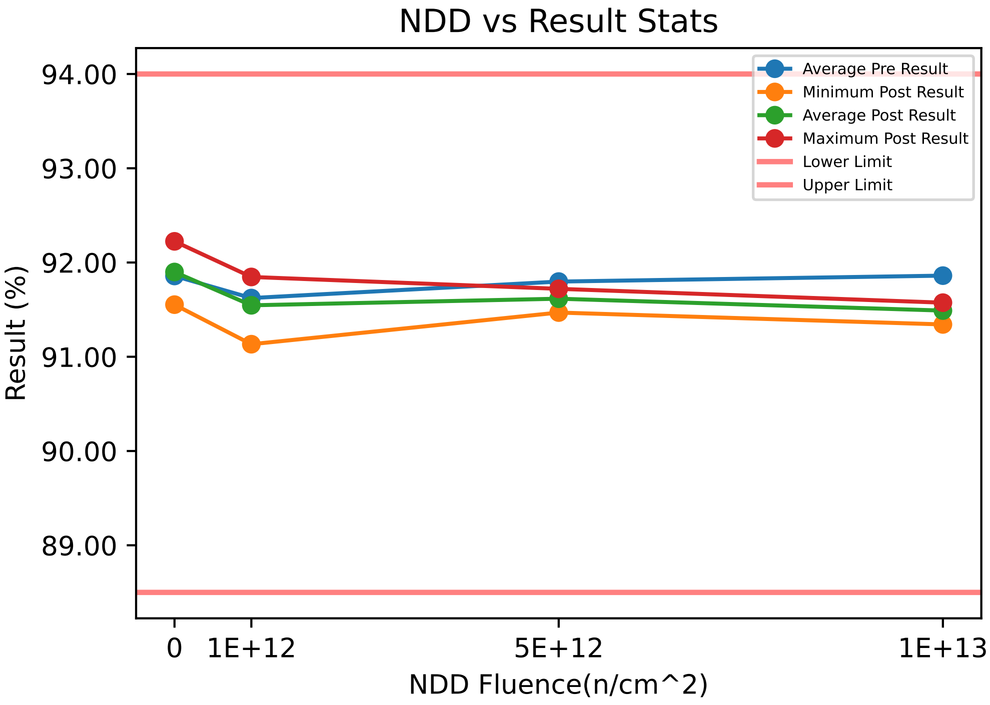
Test Results (Lower Limit = 93.0, Upper Limit = 97.0 (%))

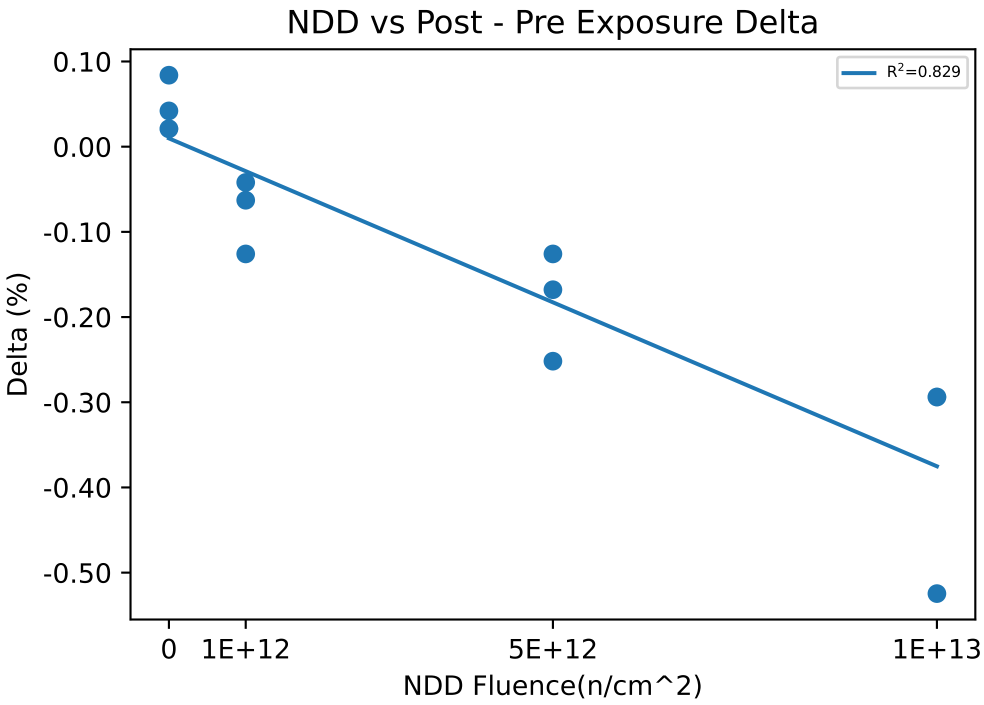
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	94.89	94.764	-0.1259
65	1e+12	NDD unbiased	95.498	95.414	-0.0839
66	1e+12	NDD unbiased	95.414	95.309	-0.105
67	1e+13	NDD unbiased	95.288	94.974	-0.3147
68	1e+13	NDD unbiased	95.498	95.162	-0.3358
70	1e+13	NDD unbiased	95.687	95.162	-0.5247
71	5e+12	NDD unbiased	95.498	95.288	-0.2099
72	5e+12	NDD unbiased	95.414	95.33	-0.084
73	5e+12	NDD unbiased	95.204	95.037	-0.1679
187	0	Correlation	95.414	95.414	0
188	0	Correlation	95.876	95.876	0
189	0	Correlation	95.624	95.624	0
190	0	Correlation	95.183	95.183	0

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	95.183	95.525	95.876	0.2955	95.183	95.525	95.876	0.2955	0	0	0	0
1e+12	94.89	95.267	95.498	0.32983	94.764	95.163	95.414	0.34928	-0.1259	-0.10493	-0.0839	0.021
5e+12	95.204	95.372	95.498	0.15134	95.037	95.218	95.33	0.15889	-0.2099	-0.15393	-0.084	0.064102
1e+13	95.288	95.491	95.687	0.19949	94.974	95.1	95.162	0.109	-0.5247	-0.39173	-0.3147	0.11563

Device Test: 14.11 VPG_FALL(THRESHOLD|FALL/FB/7/0.6//10//@VPG_FALL)





Test Results (Lower Limit = 88.5, Upper Limit = 94.0 (%))

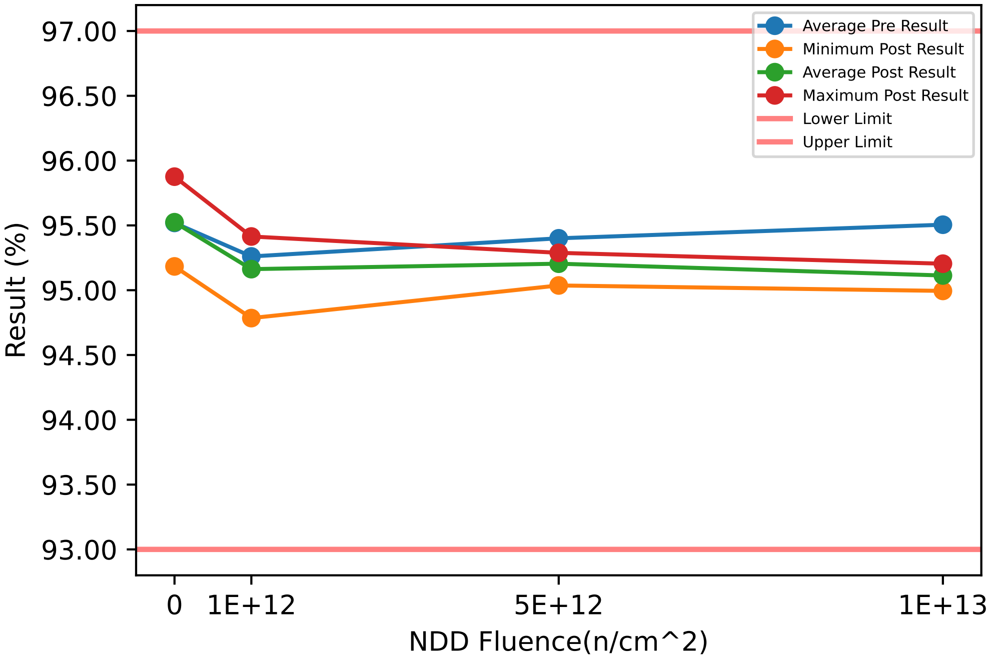
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	91.196	91.133	-0.0629
65	1e+12	NDD unbiased	91.889	91.847	-0.042
66	1e+12	NDD unbiased	91.784	91.658	-0.1259
67	1e+13	NDD unbiased	91.637	91.343	-0.2939
68	1e+13	NDD unbiased	91.847	91.553	-0.2938
70	1e+13	NDD unbiased	92.099	91.574	-0.5246
71	5e+12	NDD unbiased	91.91	91.658	-0.2518
72	5e+12	NDD unbiased	91.847	91.721	-0.1259
73	5e+12	NDD unbiased	91.637	91.469	-0.1679
187	0	Correlation	91.763	91.847	0.0839
188	0	Correlation	92.204	92.225	0.021
189	0	Correlation	91.952	91.973	0.021
190	0	Correlation	91.511	91.553	0.042

Test Statistics (%)

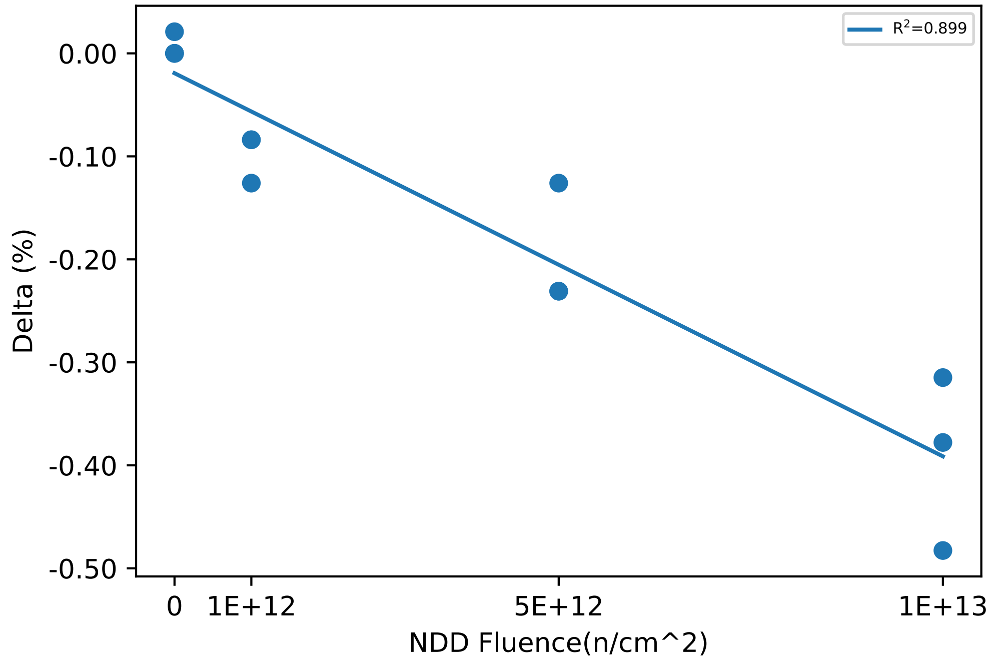
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	91.511	91.857	92.204	0.29307	91.553	91.899	92.225	0.27922	0.021	0.041975	0.0839	0.029651
1e+12	91.196	91.623	91.889	0.37329	91.133	91.546	91.847	0.36969	-0.1259	-0.076933	-0.042	0.043675
5e+12	91.637	91.798	91.91	0.14283	91.469	91.616	91.721	0.13105	-0.2518	-0.18187	-0.1259	0.064102
1e+13	91.637	91.861	92.099	0.23112	91.343	91.49	91.574	0.12768	-0.5246	-0.37077	-0.2938	0.13322

Device Test: 14.13 VPG_RISE(THRESHOLD|RISE/FB/12/0.6//10//@VPG_RISE)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



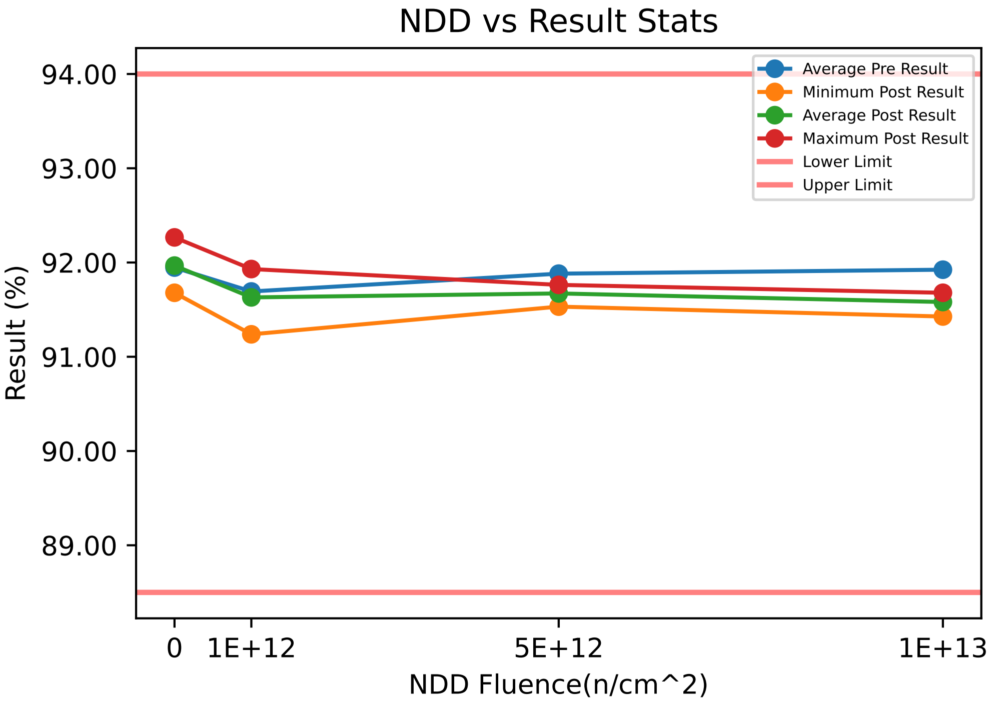
Test Results (Lower Limit = 93.0, Upper Limit = 97.0 (%))

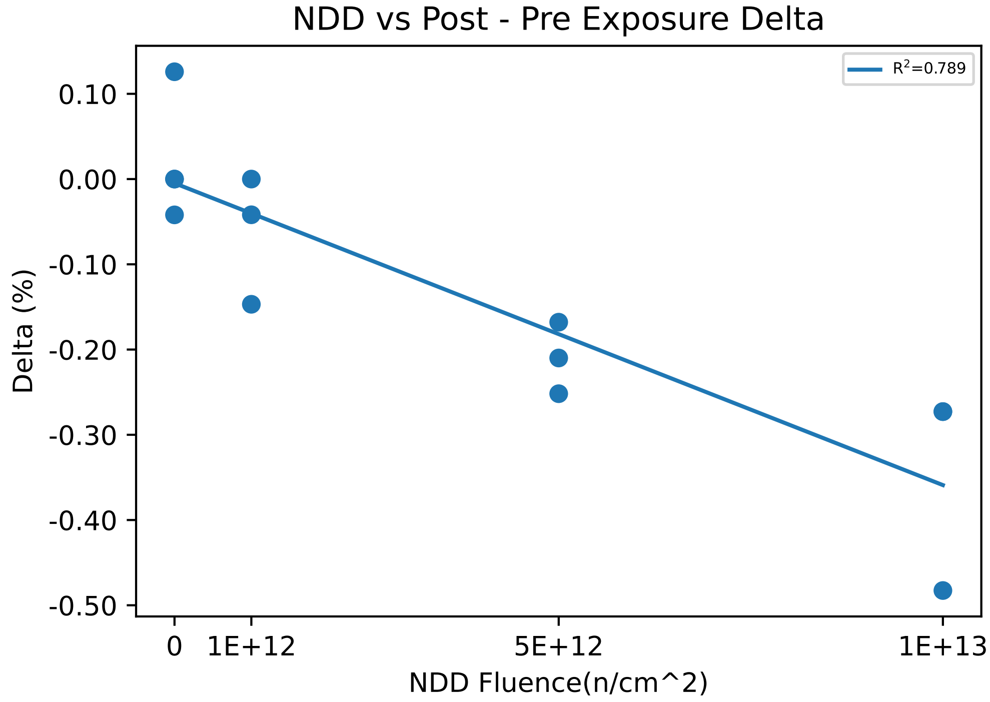
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	94.869	94.785	-0.0839
65	1e+12	NDD unbiased	95.498	95.414	-0.0839
66	1e+12	NDD unbiased	95.414	95.288	-0.126
67	1e+13	NDD unbiased	95.309	94.995	-0.3148
68	1e+13	NDD unbiased	95.519	95.141	-0.3778
70	1e+13	NDD unbiased	95.687	95.204	-0.4827
71	5e+12	NDD unbiased	95.519	95.288	-0.2309
72	5e+12	NDD unbiased	95.414	95.288	-0.126
73	5e+12	NDD unbiased	95.267	95.037	-0.2309
187	0	Correlation	95.414	95.414	0
188	0	Correlation	95.876	95.876	0
189	0	Correlation	95.624	95.624	0
190	0	Correlation	95.162	95.183	0.021

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	95.162	95.519	95.876	0.30366	95.183	95.525	95.876	0.2955	0	0.00525	0.021	0.0105
1e+12	94.869	95.26	95.498	0.34186	94.785	95.163	95.414	0.33314	-0.126	-0.097933	-0.0839	0.024306
5e+12	95.267	95.4	95.519	0.12648	95.037	95.204	95.288	0.14538	-0.2309	-0.19593	-0.126	0.060564
1e+13	95.309	95.505	95.687	0.18929	94.995	95.114	95.204	0.10771	-0.4827	-0.39177	-0.3148	0.084817

Device Test: 14.14 VPG_FALL(THRESHOLD|FALL/FB/12/0.6//10//@VPG_FALL)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

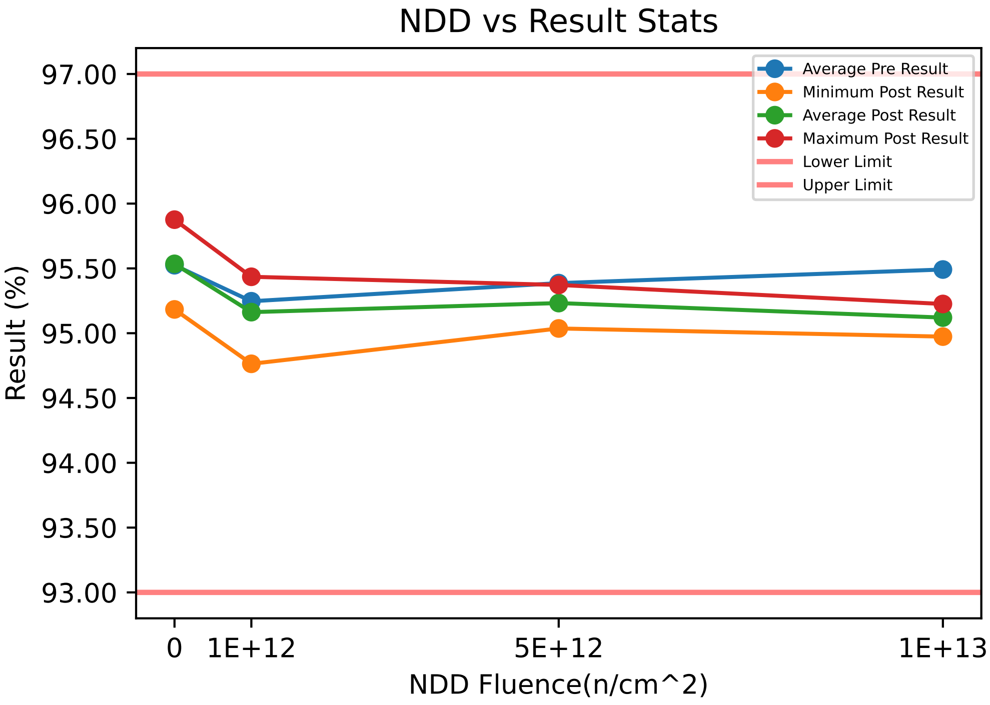
Test Results (Lower Limit = 88.5, Upper Limit = 94.0 (%))

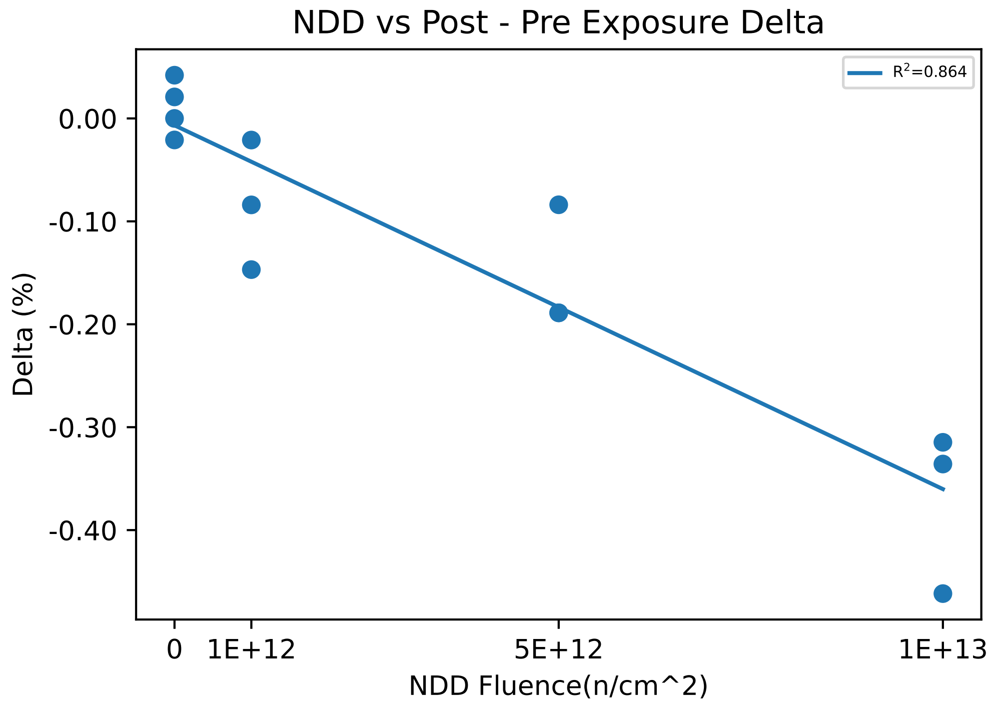
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	91.238	91.238	0
65	1e+12	NDD unbiased	91.973	91.931	-0.0419
66	1e+12	NDD unbiased	91.868	91.721	-0.1469
67	1e+13	NDD unbiased	91.7	91.427	-0.2728
68	1e+13	NDD unbiased	91.91	91.637	-0.2728
70	1e+13	NDD unbiased	92.162	91.679	-0.4827
71	5e+12	NDD unbiased	91.973	91.721	-0.2518
72	5e+12	NDD unbiased	91.931	91.763	-0.1679
73	5e+12	NDD unbiased	91.742	91.532	-0.2099
187	0	Correlation	91.889	91.889	0
188	0	Correlation	92.308	92.266	-0.042
189	0	Correlation	92.036	92.036	0
190	0	Correlation	91.553	91.679	0.1259

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	91.553	91.946	92.308	0.31473	91.679	91.967	92.266	0.24734	-0.042	0.020975	0.1259	0.072698
1e+12	91.238	91.693	91.973	0.39726	91.238	91.63	91.931	0.35514	-0.1469	-0.062933	0	0.075675
5e+12	91.742	91.882	91.973	0.12295	91.532	91.672	91.763	0.12299	-0.2518	-0.20987	-0.1679	0.04195
1e+13	91.7	91.924	92.162	0.23117	91.427	91.581	91.679	0.13492	-0.4827	-0.34277	-0.2728	0.12119

Device Test: 14.16 VPG_RISE(THRESHOLD|RISE/FB/14/0.6//10//@VPG_RISE)





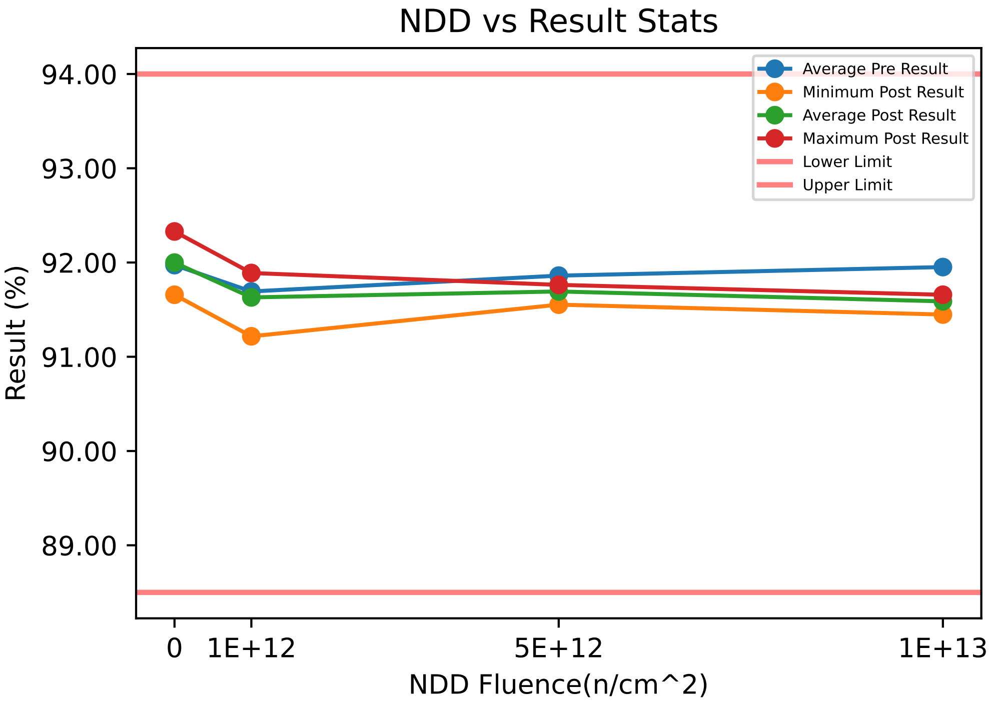
Test Results (Lower Limit = 93.0, Upper Limit = 97.0 (%))

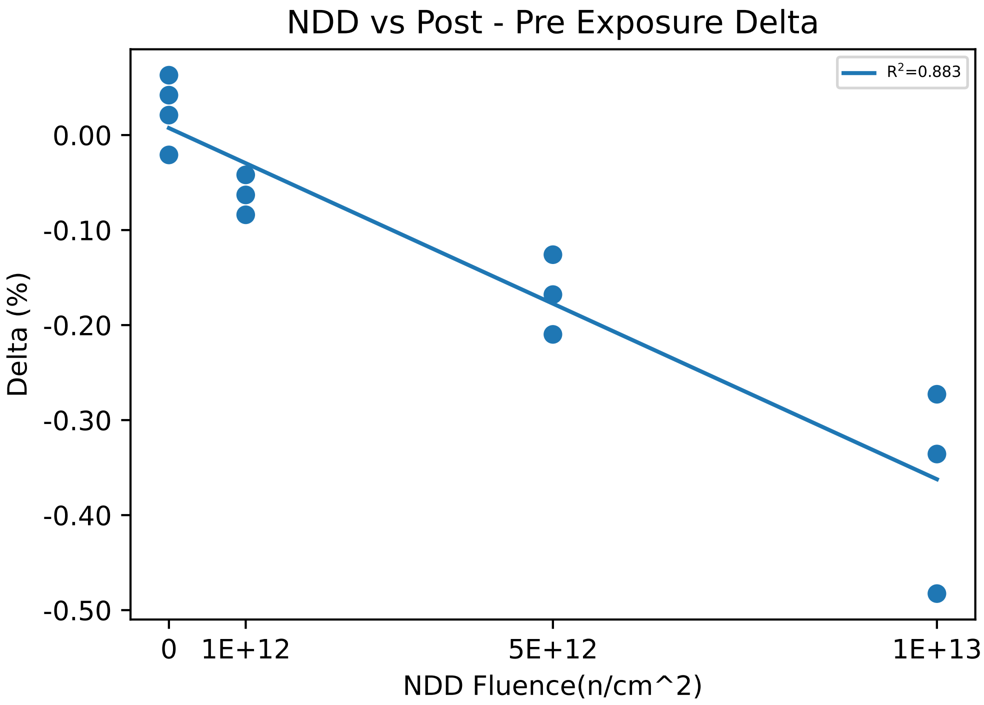
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	94.785	94.764	-0.021
65	1e+12	NDD unbiased	95.519	95.435	-0.084
66	1e+12	NDD unbiased	95.435	95.288	-0.1469
67	1e+13	NDD unbiased	95.288	94.974	-0.3147
68	1e+13	NDD unbiased	95.498	95.162	-0.3358
70	1e+13	NDD unbiased	95.687	95.225	-0.4617
71	5e+12	NDD unbiased	95.477	95.288	-0.1889
72	5e+12	NDD unbiased	95.456	95.372	-0.0839
73	5e+12	NDD unbiased	95.225	95.037	-0.1889
187	0	Correlation	95.414	95.435	0.0209
188	0	Correlation	95.897	95.876	-0.0209
189	0	Correlation	95.603	95.645	0.042
190	0	Correlation	95.183	95.183	0

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	95.183	95.525	95.897	0.30186	95.183	95.535	95.876	0.29551	-0.0209	0.0105	0.042	0.027059
1e+12	94.785	95.246	95.519	0.40202	94.764	95.163	95.435	0.35301	-0.1469	-0.083967	-0.021	0.06295
5e+12	95.225	95.386	95.477	0.13971	95.037	95.232	95.372	0.17475	-0.1889	-0.1539	-0.0839	0.060622
1e+13	95.288	95.491	95.687	0.19949	94.974	95.121	95.225	0.13103	-0.4617	-0.37073	-0.3147	0.079483

Device Test: 14.17 VPG_FALL(THRESHOLD|FALL/FB/14/0.6//10//@VPG_FALL)





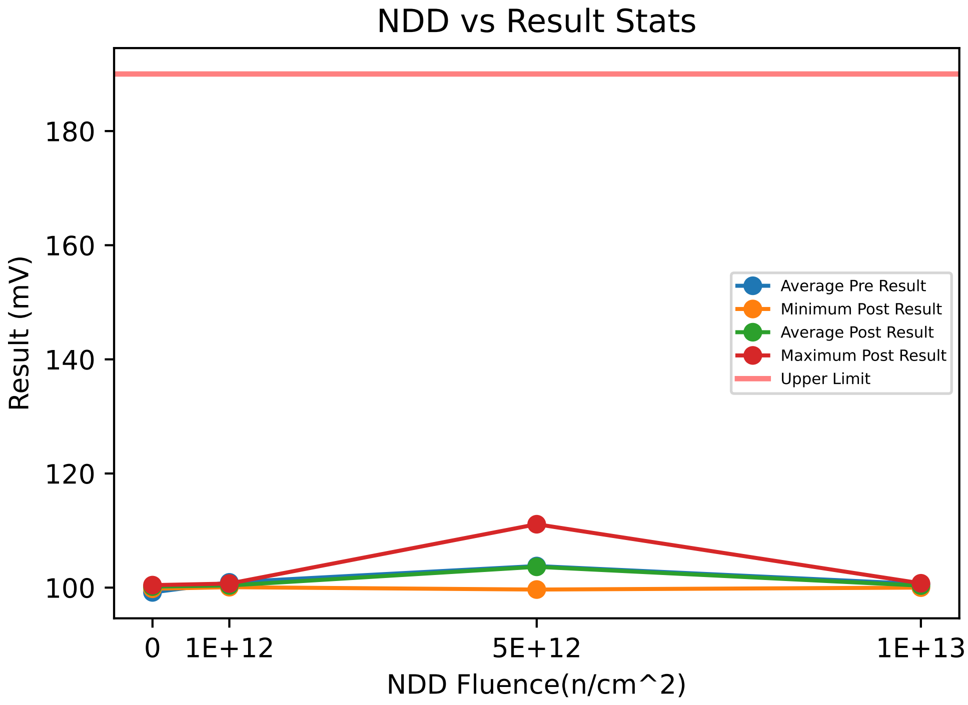
Test Results (Lower Limit = 88.5, Upper Limit = 94.0 (%))

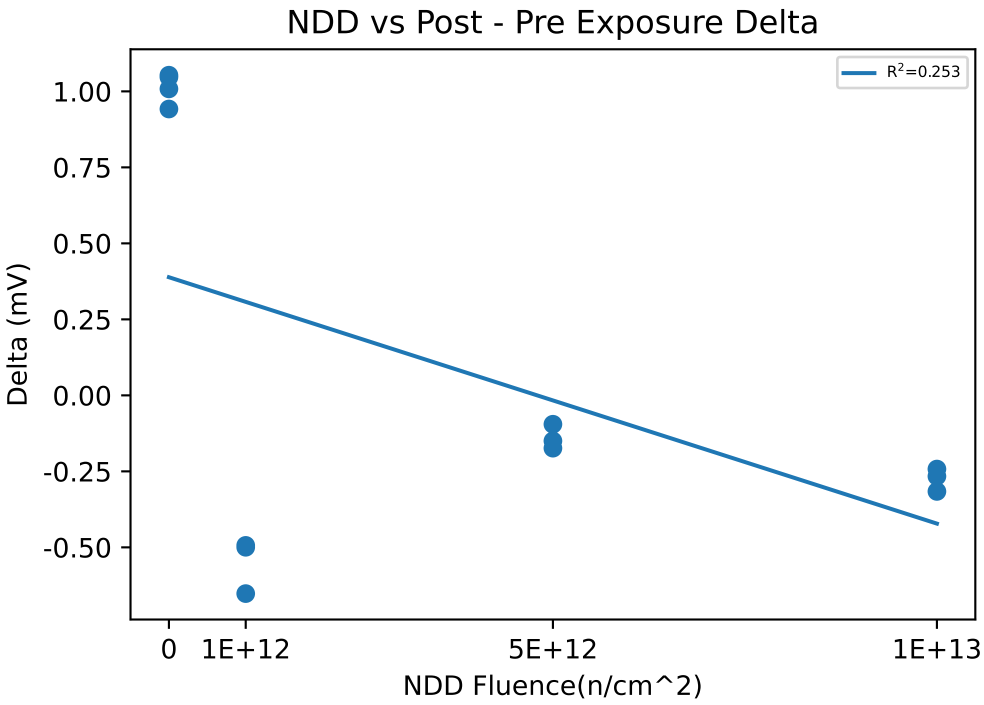
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	91.28	91.217	-0.063
65	1e+12	NDD unbiased	91.973	91.889	-0.0839
66	1e+12	NDD unbiased	91.826	91.784	-0.0419
67	1e+13	NDD unbiased	91.721	91.448	-0.2728
68	1e+13	NDD unbiased	91.994	91.658	-0.3357
70	1e+13	NDD unbiased	92.141	91.658	-0.4826
71	5e+12	NDD unbiased	91.973	91.763	-0.2098
72	5e+12	NDD unbiased	91.889	91.763	-0.1259
73	5e+12	NDD unbiased	91.721	91.553	-0.1679
187	0	Correlation	91.889	91.931	0.042
188	0	Correlation	92.308	92.329	0.021
189	0	Correlation	92.015	92.078	0.063
190	0	Correlation	91.679	91.658	-0.0209

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	91.679	91.973	92.308	0.26324	91.658	91.999	92.329	0.28069	-0.0209	0.026275	0.063	0.03582
1e+12	91.28	91.693	91.973	0.36488	91.217	91.63	91.889	0.36129	-0.0839	-0.062933	-0.0419	0.021
5e+12	91.721	91.861	91.973	0.12821	91.553	91.693	91.763	0.12119	-0.2098	-0.16787	-0.1259	0.04195
1e+13	91.721	91.952	92.141	0.21297	91.448	91.588	91.658	0.12119	-0.4826	-0.3637	-0.2728	0.10767

Device Test: 14.19 VPG_OL(LEVELS|VOL/PG/2.25/////@VPG_OL)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

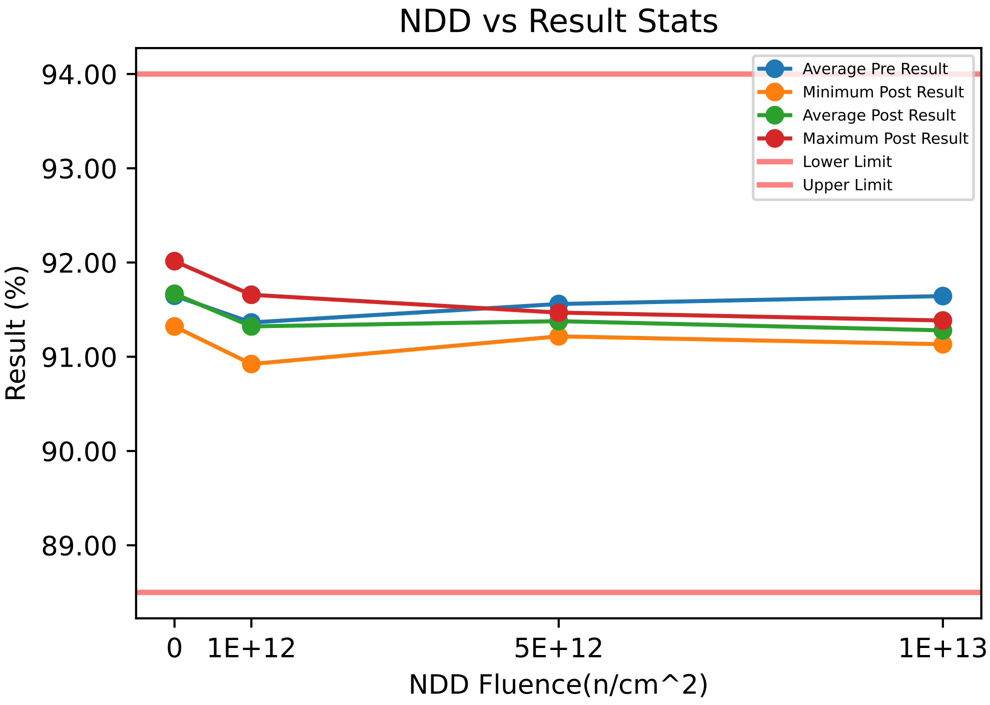
Test Results (Upper Limit = 190.0 (mV))

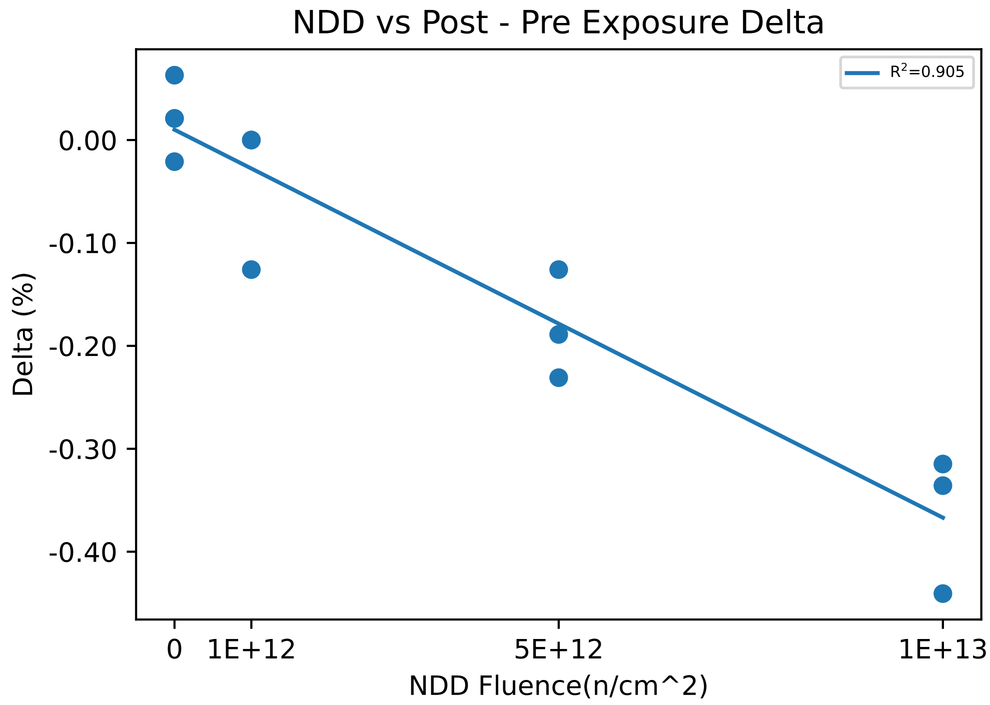
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	100.73	100.07	-0.6521
65	1e+12	NDD unbiased	101.21	100.71	-0.4935
66	1e+12	NDD unbiased	100.84	100.34	-0.4997
67	1e+13	NDD unbiased	101.08	100.76	-0.316
68	1e+13	NDD unbiased	100.24	100	-0.2424
70	1e+13	NDD unbiased	100.56	100.29	-0.2661
71	5e+12	NDD unbiased	99.836	99.663	-0.1737
72	5e+12	NDD unbiased	100.26	100.17	-0.095
73	5e+12	NDD unbiased	111.26	111.11	-0.1499
187	0	Correlation	98.793	99.801	1.0082
188	0	Correlation	99.384	100.44	1.0532
189	0	Correlation	99.075	100.12	1.0468
190	0	Correlation	99.401	100.34	0.942

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	98.793	99.164	99.401	0.28879	99.801	100.18	100.44	0.28259	0.942	1.0126	1.0532	0.051061
1e+12	100.73	100.92	101.21	0.25021	100.07	100.38	100.71	0.32006	-0.6521	-0.54843	-0.4935	0.089831
5e+12	99.836	103.79	111.26	6.4743	99.663	103.65	111.11	6.4668	-0.1737	-0.13953	-0.095	0.040361
1e+13	100.24	100.63	101.08	0.41949	100	100.35	100.76	0.382	-0.316	-0.27483	-0.2424	0.037569

Device Test: 14.2 VPG_FALL(THRESHOLD|FALL/FB/2.25/0.6//10//@VPG_FALL)





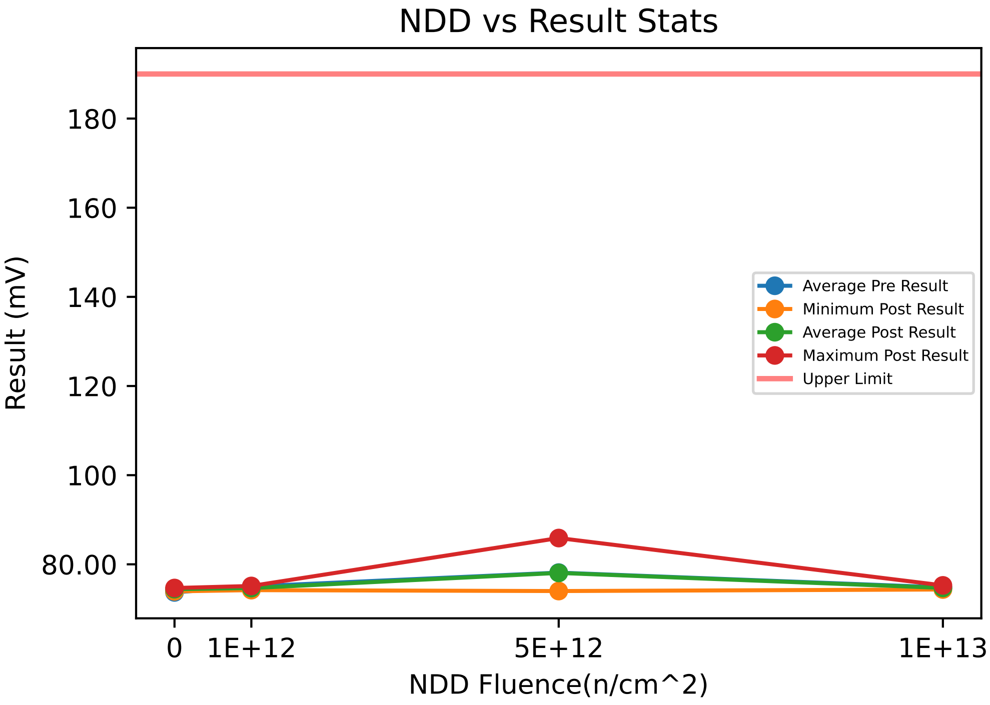
Test Results (Lower Limit = 88.5, Upper Limit = 94.0 (%))

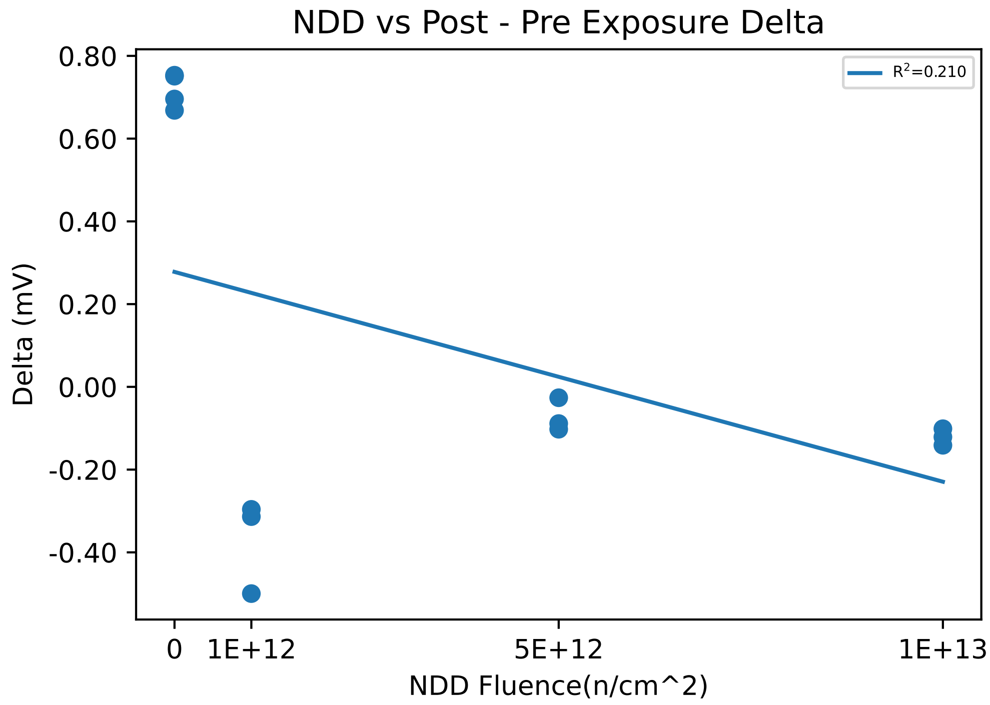
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	90.923	90.923	0
65	1e+12	NDD unbiased	91.658	91.658	0
66	1e+12	NDD unbiased	91.511	91.385	-0.1259
67	1e+13	NDD unbiased	91.448	91.133	-0.3148
68	1e+13	NDD unbiased	91.658	91.322	-0.3358
70	1e+13	NDD unbiased	91.826	91.385	-0.4407
71	5e+12	NDD unbiased	91.658	91.469	-0.1889
72	5e+12	NDD unbiased	91.574	91.448	-0.1259
73	5e+12	NDD unbiased	91.448	91.217	-0.2309
187	0	Correlation	91.553	91.574	0.021
188	0	Correlation	92.036	92.015	-0.021
189	0	Correlation	91.742	91.763	0.021
190	0	Correlation	91.259	91.322	0.063

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	91.259	91.647	92.036	0.32625	91.322	91.668	92.015	0.29304	-0.021	0.021	0.063	0.034293
1e+12	90.923	91.364	91.658	0.3887	90.923	91.322	91.658	0.37132	-0.1259	-0.041967	0	0.072688
5e+12	91.448	91.56	91.658	0.10564	91.217	91.378	91.469	0.13977	-0.2309	-0.1819	-0.1259	0.052849
1e+13	91.448	91.644	91.826	0.18924	91.133	91.28	91.385	0.13105	-0.4407	-0.36377	-0.3148	0.067449

Device Test: 14.20 VPG_OL(LEVELS|VOL/PG/14/////@VPG_OL)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

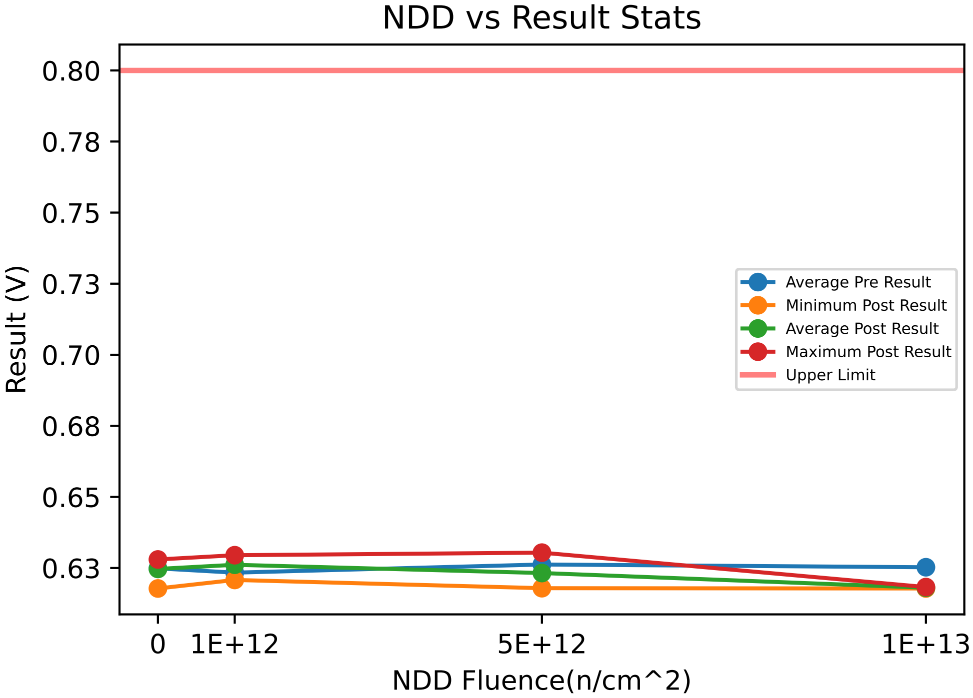
Test Results (Upper Limit = 190.0 (mV))

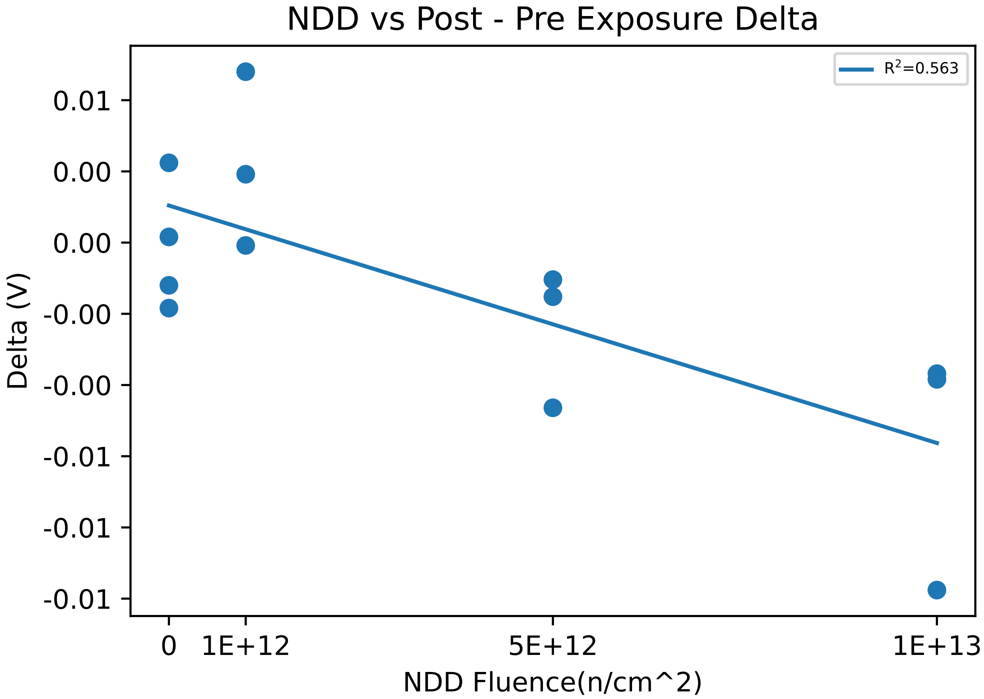
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	74.705	74.205	-0.4997
65	1e+12	NDD unbiased	75.454	75.141	-0.3136
66	1e+12	NDD unbiased	74.955	74.659	-0.2961
67	1e+13	NDD unbiased	75.412	75.271	-0.1412
68	1e+13	NDD unbiased	74.447	74.346	-0.1012
70	1e+13	NDD unbiased	74.612	74.491	-0.1212
71	5e+12	NDD unbiased	74.104	74.001	-0.1024
72	5e+12	NDD unbiased	74.329	74.302	-0.0263
73	5e+12	NDD unbiased	85.982	85.893	-0.0887
187	0	Correlation	73.236	73.931	0.6958
188	0	Correlation	73.844	74.597	0.7533
189	0	Correlation	73.699	74.45	0.7509
190	0	Correlation	74.014	74.682	0.6683

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	73.236	73.698	74.014	0.33413	73.931	74.415	74.682	0.33651	0.6683	0.71708	0.7533	0.041984
1e+12	74.705	75.038	75.454	0.38167	74.205	74.668	75.141	0.46792	-0.4997	-0.3698	-0.2961	0.11284
5e+12	74.104	78.138	85.982	6.7938	74.001	78.066	85.893	6.7805	-0.1024	-0.072467	-0.0263	0.040564
1e+13	74.447	74.824	75.412	0.51583	74.346	74.703	75.271	0.49718	-0.1412	-0.1212	-0.1012	0.02

Device Test: 14.21 VIN_MIN_PG(VIN|MIN_PG/PG/0.4/////@VIN_MIN_PG)





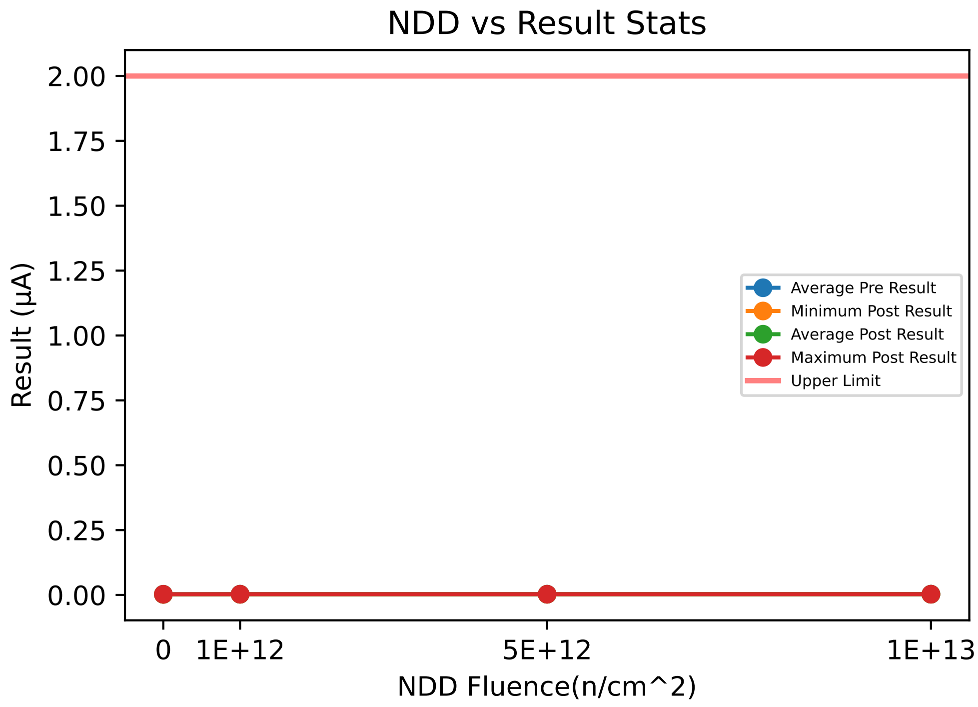
Test Results (Upper Limit = 0.8 (V))

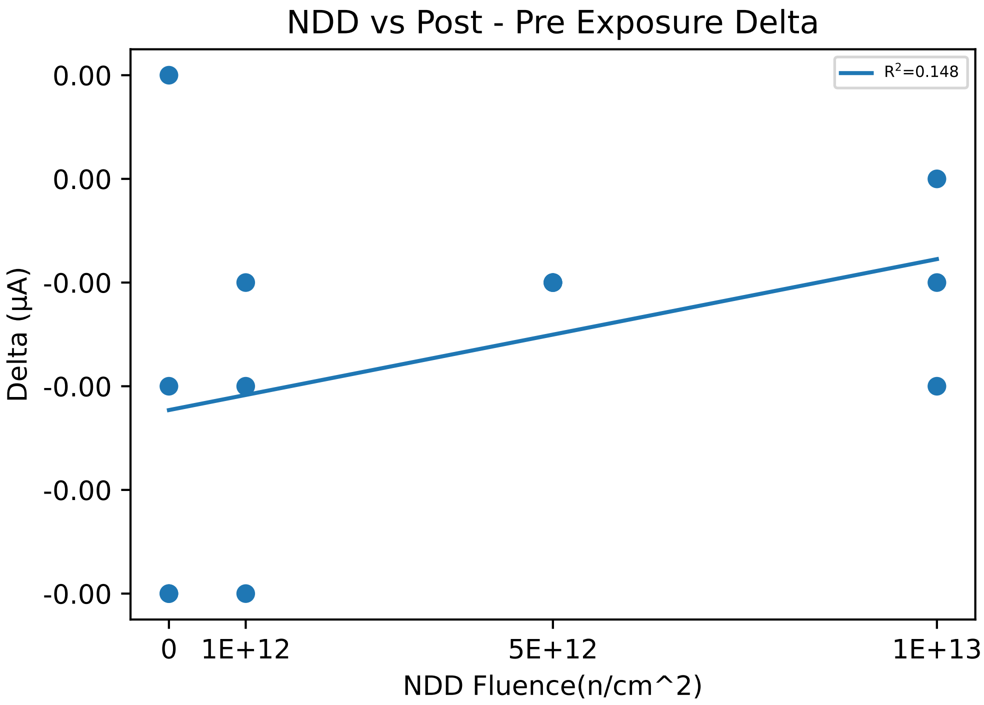
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.6271	0.6295	0.0024
65	1e+12	NDD unbiased	0.6209	0.6208	-0.0001
66	1e+12	NDD unbiased	0.6221	0.6281	0.006
67	1e+13	NDD unbiased	0.6227	0.6181	-0.0046
68	1e+13	NDD unbiased	0.6231	0.6183	-0.0048
70	1e+13	NDD unbiased	0.63	0.6178	-0.0122
71	5e+12	NDD unbiased	0.6272	0.6214	-0.0058
72	5e+12	NDD unbiased	0.6323	0.6304	-0.0019
73	5e+12	NDD unbiased	0.6192	0.6179	-0.0013
187	0	Correlation	0.6201	0.6178	-0.0023
188	0	Correlation	0.6287	0.6272	-0.0015
189	0	Correlation	0.6255	0.6257	0.0002
190	0	Correlation	0.6252	0.628	0.0028

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	0.6201	0.62487	0.6287	0.0035556	0.6178	0.62467	0.628	0.0046814	-0.0023	-0.0002	0.0028	0.0022554
1e+12	0.6209	0.62337	0.6271	0.0032884	0.6208	0.62613	0.6295	0.0046715	-0.0001	0.0027667	0.006	0.0030665
5e+12	0.6192	0.62623	0.6323	0.0066033	0.6179	0.62323	0.6304	0.0064485	-0.0058	-0.003	-0.0013	0.0024434
1e+13	0.6227	0.62527	0.63	0.0041041	0.6178	0.61807	0.6183	0.00025166	-0.0122	-0.0072	-0.0046	0.0043313

Device Test: 14.22 IPG_LKG(LEAK|LEAKAGE/PG/2.25/0.6//0//@IPG_LKG)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

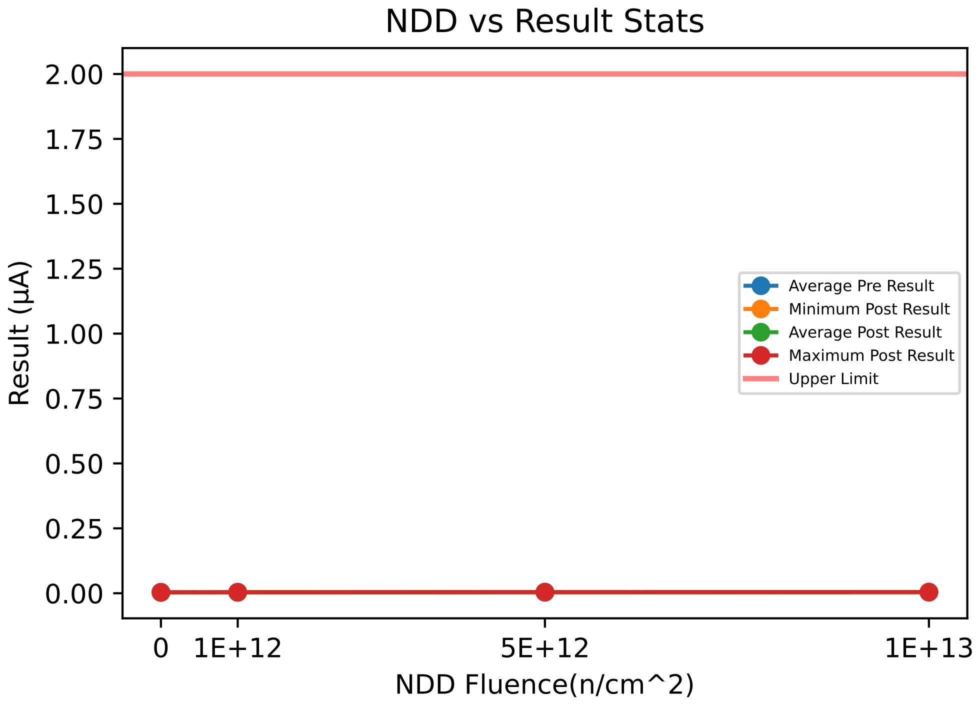
Test Results (Upper Limit = 2.0 (µA))

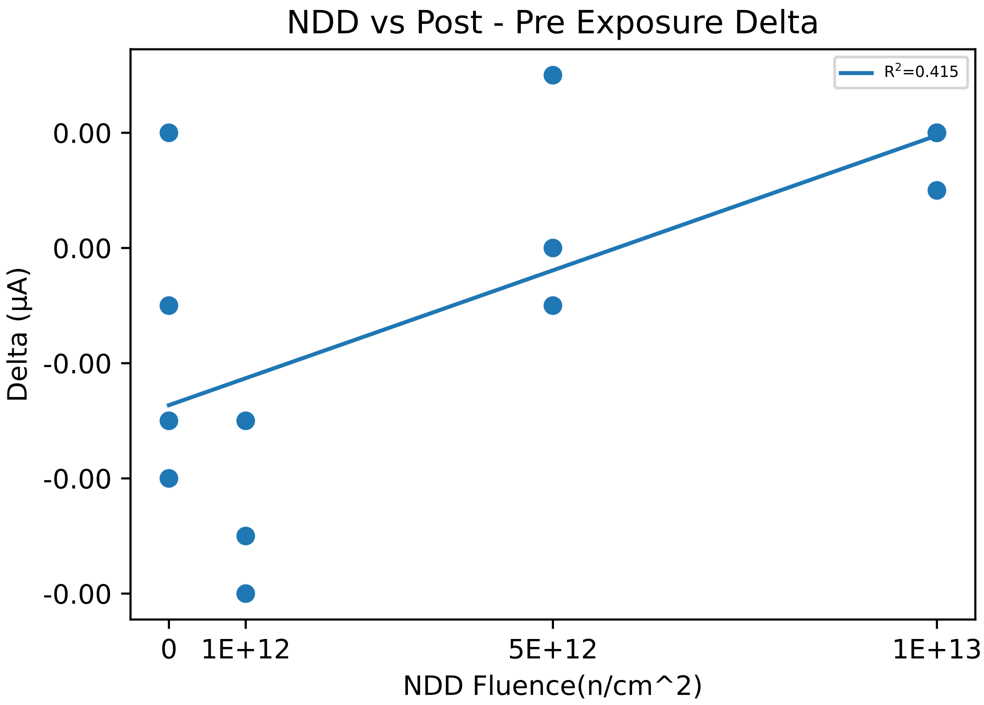
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.003	0.0029	-0.0001
65	1e+12	NDD unbiased	0.003	0.0028	-0.0002
66	1e+12	NDD unbiased	0.0029	0.0025	-0.0004
67	1e+13	NDD unbiased	0.0031	0.003	-0.0001
68	1e+13	NDD unbiased	0.003	0.0028	-0.0002
70	1e+13	NDD unbiased	0.0029	0.0029	0
71	5e+12	NDD unbiased	0.0027	0.0026	-0.0001
72	5e+12	NDD unbiased	0.0029	0.0028	-0.0001
73	5e+12	NDD unbiased	0.003	0.0029	-0.0001
187	0	Correlation	0.0025	0.0026	0.0001
188	0	Correlation	0.0026	0.0022	-0.0004
189	0	Correlation	0.0027	0.0023	-0.0004
190	0	Correlation	0.0029	0.0027	-0.0002

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	0.0025	0.002675	0.0029	0.00017078	0.0022	0.00245	0.0027	0.00023805	-0.0004	-0.000225	0.0001	0.00023629
1e+12	0.0029	0.0029667	0.003	5.7735e-05	0.0025	0.0027333	0.0029	0.00020817	-0.0004	-0.00023333	-0.0001	0.00015275
5e+12	0.0027	0.0028667	0.003	0.00015275	0.0026	0.0027667	0.0029	0.00015275	-0.0001	-0.0001	-0.0001	2.4842e-19
1e+13	0.0029	0.003	0.0031	0.0001	0.0028	0.0029	0.003	0.0001	-0.0002	-0.0001	0	0.0001

Device Test: 14.23 IPG_LKG(LEAK|LEAKAGE/PG/14/0.6//0//@IPG_LKG)





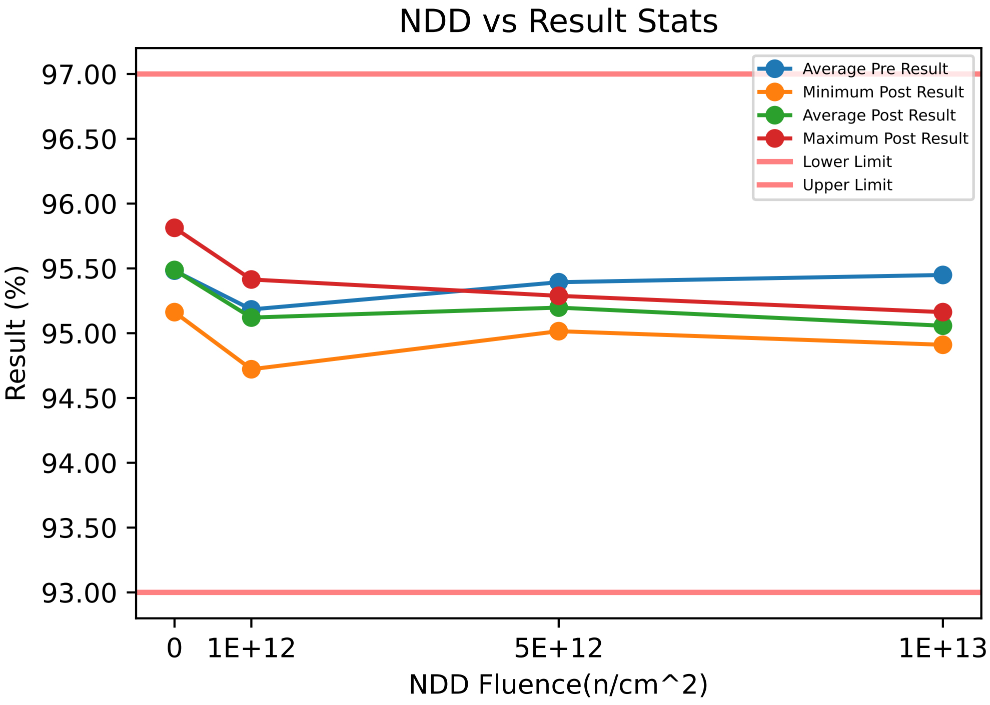
Test Results (Upper Limit = 2.0 (µA))

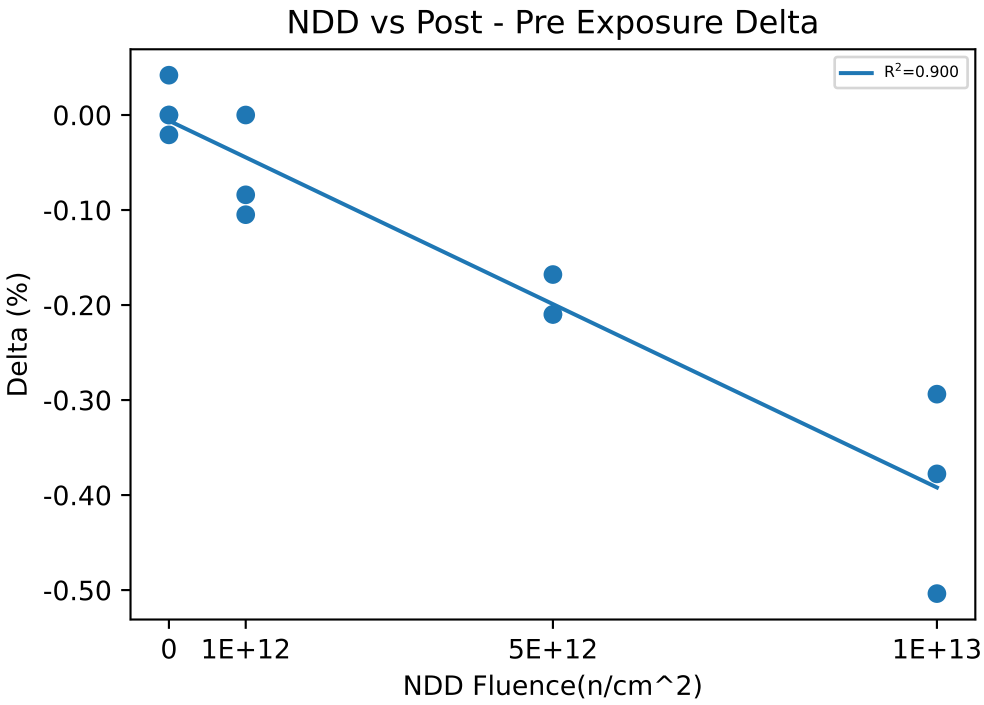
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.0039	0.0036	-0.0003
65	1e+12	NDD unbiased	0.0041	0.0036	-0.0005
66	1e+12	NDD unbiased	0.0042	0.0036	-0.0006
67	1e+13	NDD unbiased	0.0041	0.0042	0.0001
68	1e+13	NDD unbiased	0.004	0.0042	0.0002
70	1e+13	NDD unbiased	0.004	0.0042	0.0002
71	5e+12	NDD unbiased	0.0038	0.0041	0.0003
72	5e+12	NDD unbiased	0.0038	0.0038	0
73	5e+12	NDD unbiased	0.0041	0.004	-0.0001
187	0	Correlation	0.0033	0.0035	0.0002
188	0	Correlation	0.0036	0.0035	-0.0001
189	0	Correlation	0.0037	0.0034	-0.0003
190	0	Correlation	0.0036	0.0032	-0.0004

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	0.0033	0.00355	0.0037	0.00017321	0.0032	0.0034	0.0035	0.00014142	-0.0004	-0.00015	0.0002	0.00026458
1e+12	0.0039	0.0040667	0.0042	0.00015275	0.0036	0.0036	0.0036	0	-0.0006	-0.00046667	-0.0003	0.00015275
5e+12	0.0038	0.0039	0.0041	0.00017321	0.0038	0.0039667	0.0041	0.00015275	-0.0001	6.6667e-05	0.0003	0.00020817
1e+13	0.004	0.0040333	0.0041	5.7735e-05	0.0042	0.0042	0.0042	0	0.0001	0.00016667	0.0002	5.7735e-05

Device Test: 14.4 VPG_RISE(THRESHOLD|RISE/FB/3.3/0.6//10//@VPG_RISE)





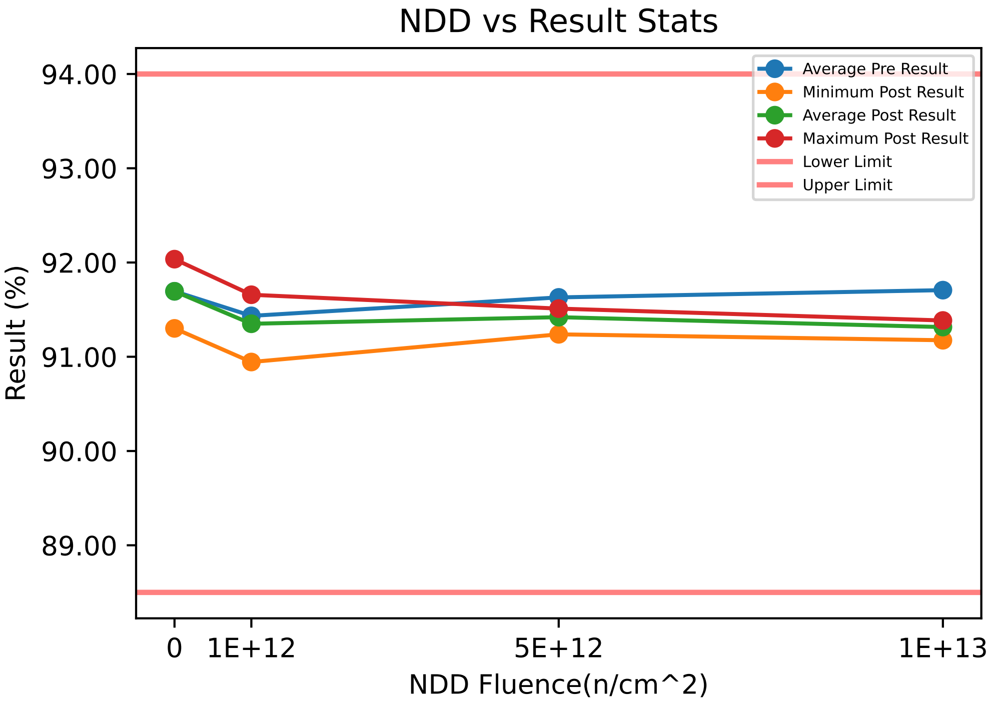
Test Results (Lower Limit = 93.0, Upper Limit = 97.0 (%))

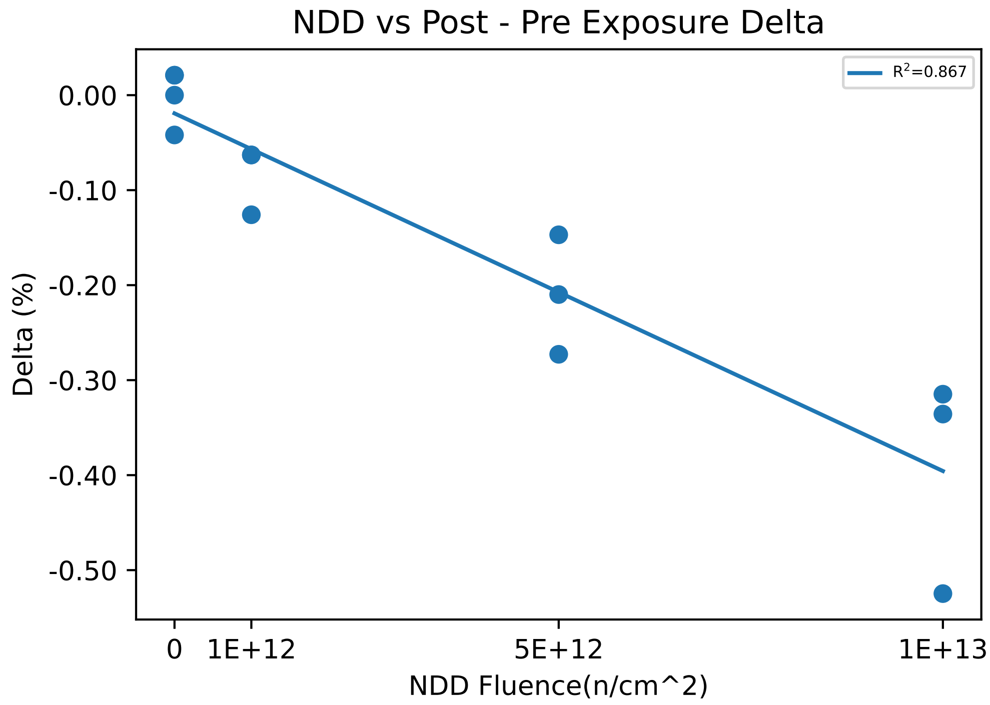
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	94.806	94.722	-0.084
65	1e+12	NDD unbiased	95.414	95.414	0
66	1e+12	NDD unbiased	95.33	95.225	-0.1049
67	1e+13	NDD unbiased	95.288	94.911	-0.3777
68	1e+13	NDD unbiased	95.393	95.1	-0.2938
70	1e+13	NDD unbiased	95.666	95.162	-0.5037
71	5e+12	NDD unbiased	95.498	95.288	-0.2099
72	5e+12	NDD unbiased	95.456	95.288	-0.1679
73	5e+12	NDD unbiased	95.225	95.016	-0.2099
187	0	Correlation	95.414	95.414	0
188	0	Correlation	95.813	95.813	0
189	0	Correlation	95.582	95.561	-0.0209
190	0	Correlation	95.121	95.162	0.0419

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	95.121	95.483	95.813	0.29146	95.162	95.488	95.813	0.27229	-0.0209	0.00525	0.0419	0.026345
1e+12	94.806	95.184	95.414	0.32981	94.722	95.121	95.414	0.35803	-0.1049	-0.062967	0	0.055523
5e+12	95.225	95.393	95.498	0.14689	95.016	95.197	95.288	0.1575	-0.2099	-0.1959	-0.1679	0.024249
1e+13	95.288	95.449	95.666	0.19501	94.911	95.058	95.162	0.13105	-0.5037	-0.39173	-0.2938	0.10565

Device Test: 14.5 VPG_FALL(THRESHOLD|FALL/FB/3.3/0.6//10//@VPG_FALL)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

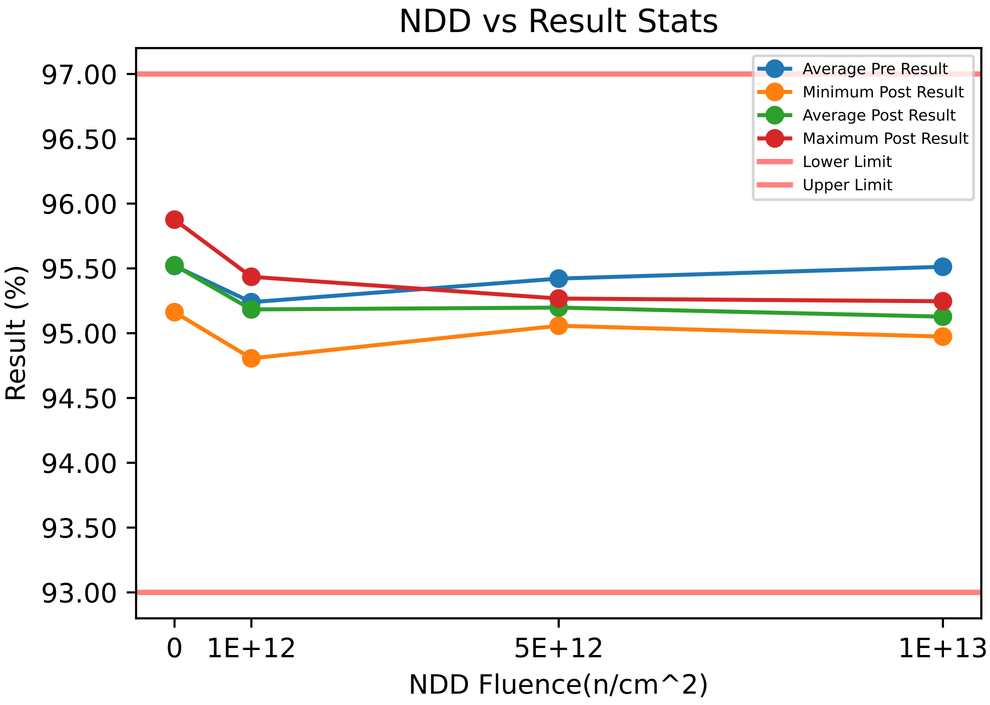
Test Results (Lower Limit = 88.5, Upper Limit = 94.0 (%))

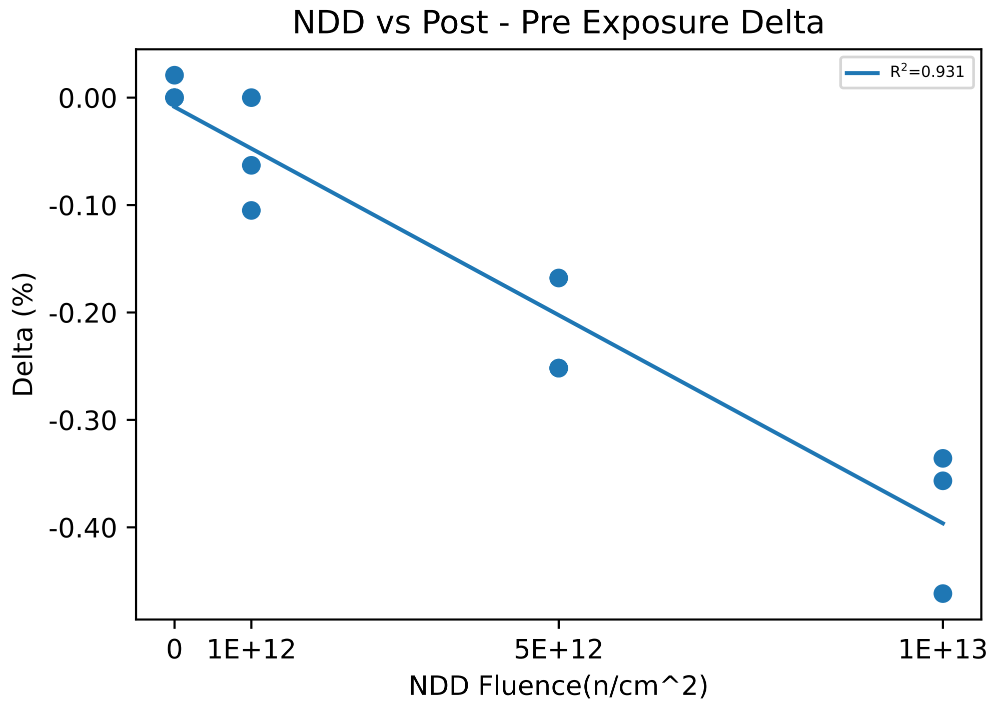
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	91.007	90.944	-0.063
65	1e+12	NDD unbiased	91.721	91.658	-0.0629
66	1e+12	NDD unbiased	91.574	91.448	-0.1259
67	1e+13	NDD unbiased	91.511	91.175	-0.3357
68	1e+13	NDD unbiased	91.7	91.385	-0.3148
70	1e+13	NDD unbiased	91.91	91.385	-0.5247
71	5e+12	NDD unbiased	91.721	91.511	-0.2099
72	5e+12	NDD unbiased	91.658	91.511	-0.147
73	5e+12	NDD unbiased	91.511	91.238	-0.2728
187	0	Correlation	91.658	91.658	0
188	0	Correlation	92.015	92.036	0.021
189	0	Correlation	91.763	91.784	0.021
190	0	Correlation	91.343	91.301	-0.0419

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	91.343	91.695	92.015	0.2781	91.301	91.695	92.036	0.30574	-0.0419	2.5e-05	0.021	0.029651
1e+12	91.007	91.434	91.721	0.37676	90.944	91.35	91.658	0.36674	-0.1259	-0.083933	-0.0629	0.036344
5e+12	91.511	91.63	91.721	0.10772	91.238	91.42	91.511	0.1575	-0.2728	-0.2099	-0.147	0.0629
1e+13	91.511	91.707	91.91	0.19949	91.175	91.315	91.385	0.12113	-0.5247	-0.39173	-0.3148	0.11563

Device Test: 14.7 VPG_RISE(THRESHOLD|RISE/FB/5/0.6//10//@VPG_RISE)





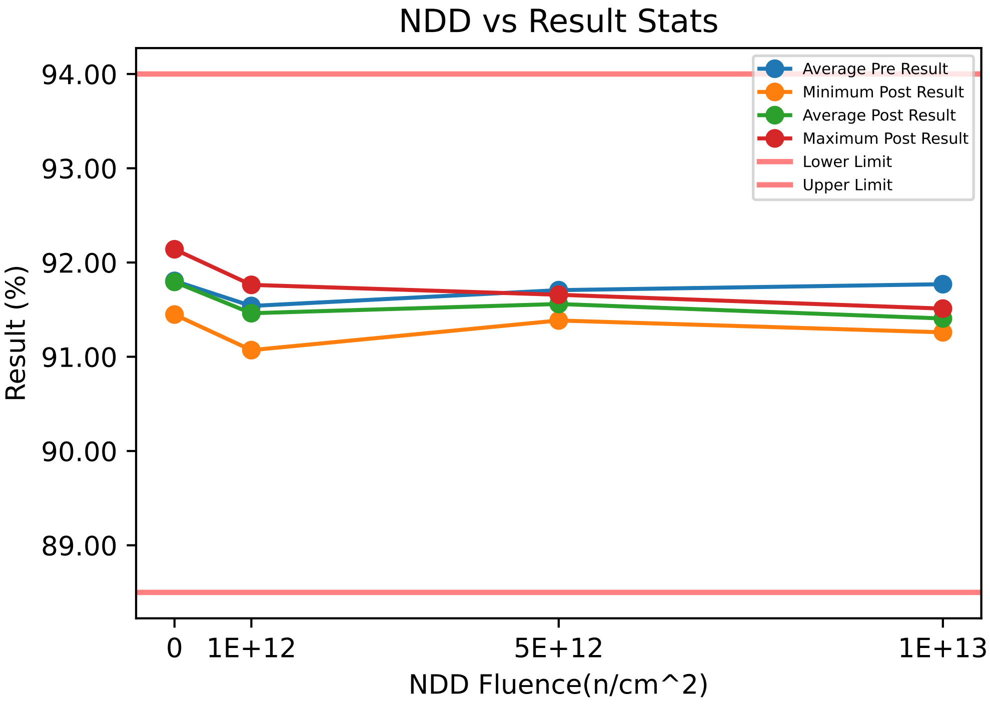
Test Results (Lower Limit = 93.0, Upper Limit = 97.0 (%))

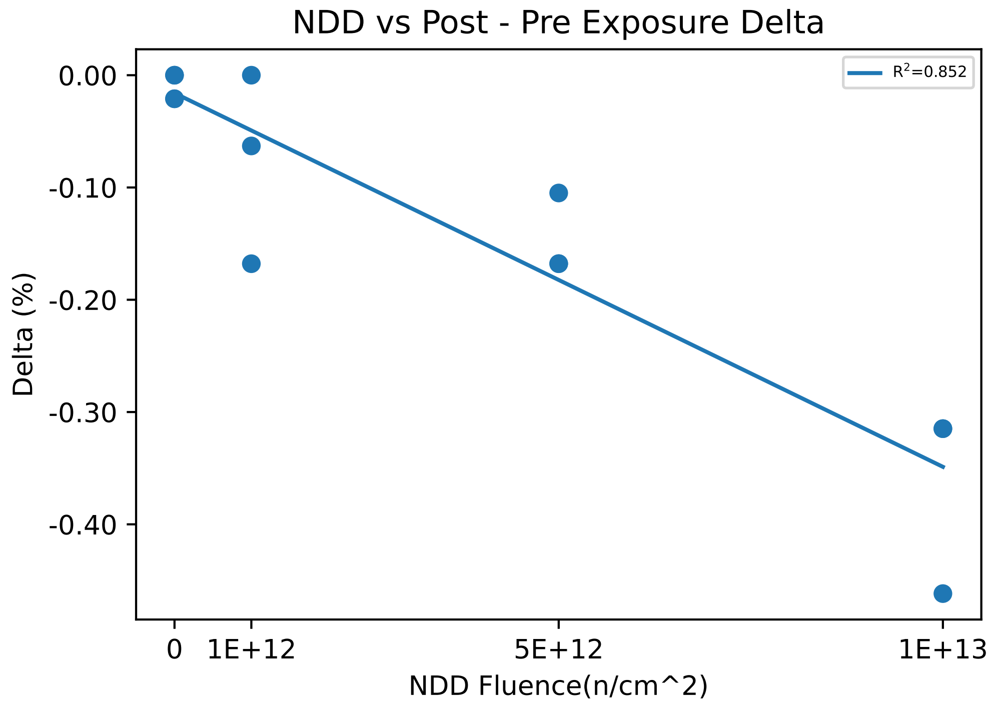
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	94.806	94.806	0
65	1e+12	NDD unbiased	95.498	95.435	-0.063
66	1e+12	NDD unbiased	95.414	95.309	-0.105
67	1e+13	NDD unbiased	95.33	94.974	-0.3567
68	1e+13	NDD unbiased	95.498	95.162	-0.3358
70	1e+13	NDD unbiased	95.708	95.246	-0.4617
71	5e+12	NDD unbiased	95.519	95.267	-0.2518
72	5e+12	NDD unbiased	95.519	95.267	-0.2518
73	5e+12	NDD unbiased	95.225	95.058	-0.1679
187	0	Correlation	95.414	95.435	0.0209
188	0	Correlation	95.876	95.876	0
189	0	Correlation	95.624	95.624	0
190	0	Correlation	95.162	95.162	0

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	95.162	95.519	95.876	0.30366	95.162	95.525	95.876	0.30142	0	0.005225	0.0209	0.01045
1e+12	94.806	95.24	95.498	0.37793	94.806	95.183	95.435	0.3331	-0.105	-0.056	0	0.052849
5e+12	95.225	95.421	95.519	0.16963	95.058	95.198	95.267	0.12119	-0.2518	-0.22383	-0.1679	0.04844
1e+13	95.33	95.512	95.708	0.18929	94.974	95.128	95.246	0.13971	-0.4617	-0.38473	-0.3358	0.067469

Device Test: 14.8 VPG_FALL(THRESHOLD|FALL/FB/5/0.6//10//@VPG_FALL)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

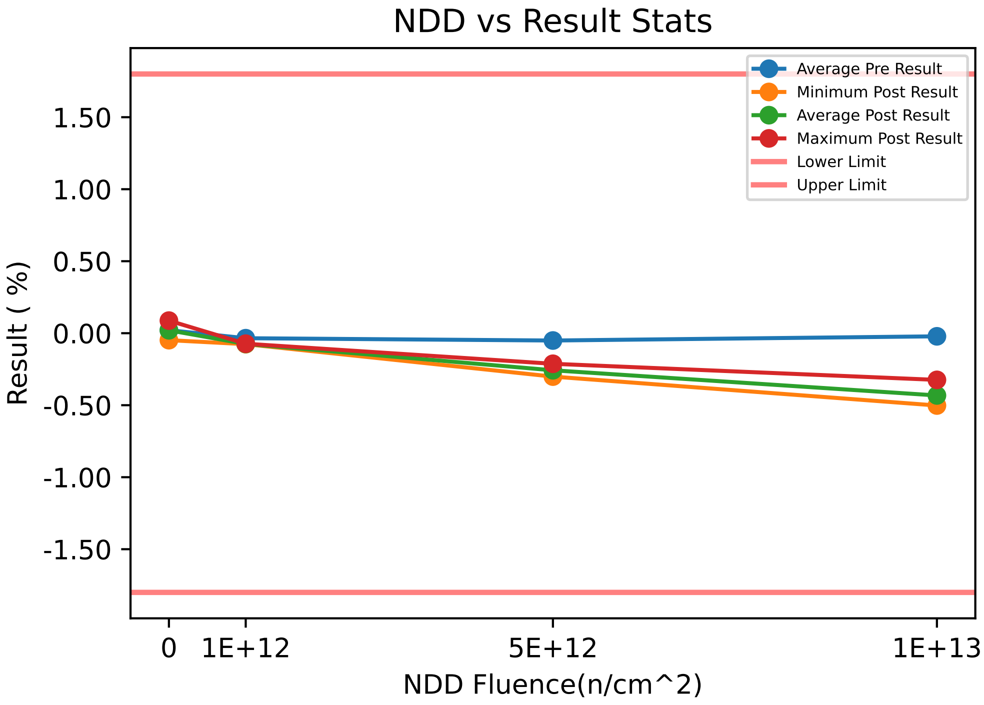
Test Results (Lower Limit = 88.5, Upper Limit = 94.0 (%))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	91.133	91.07	-0.063
65	1e+12	NDD unbiased	91.763	91.763	0
66	1e+12	NDD unbiased	91.721	91.553	-0.1679
67	1e+13	NDD unbiased	91.574	91.259	-0.3148
68	1e+13	NDD unbiased	91.763	91.448	-0.3148
70	1e+13	NDD unbiased	91.973	91.511	-0.4617
71	5e+12	NDD unbiased	91.805	91.637	-0.1678
72	5e+12	NDD unbiased	91.763	91.658	-0.1049
73	5e+12	NDD unbiased	91.553	91.385	-0.1679
187	0	Correlation	91.721	91.7	-0.021
188	0	Correlation	92.141	92.141	0
189	0	Correlation	91.91	91.889	-0.021
190	0	Correlation	91.448	91.448	0

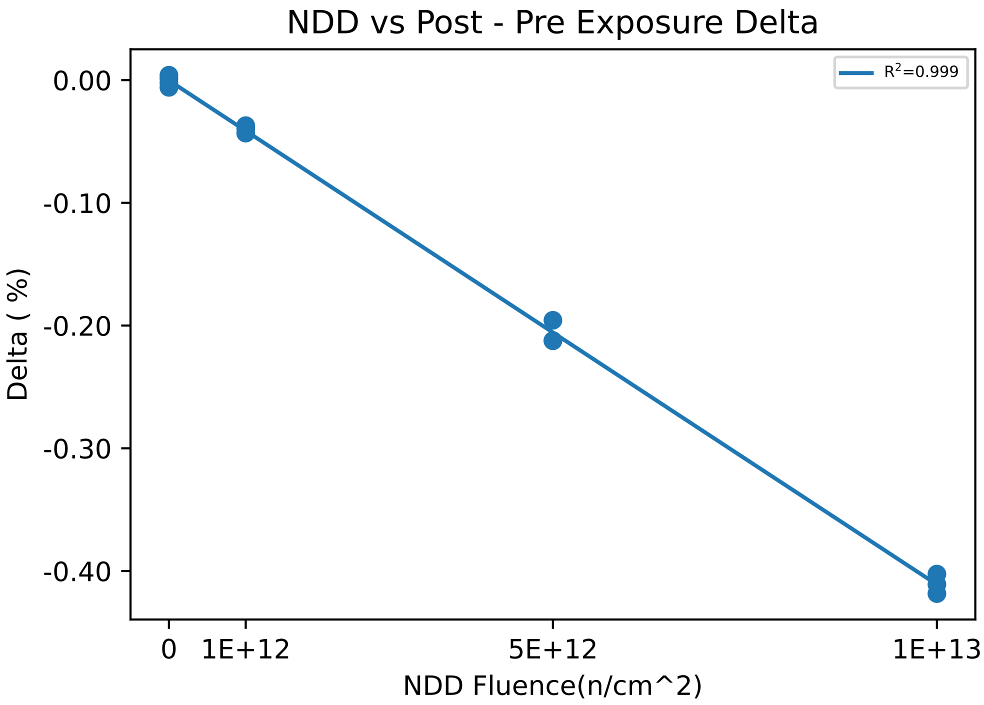
Test Statistics (%)

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	91.448	91.805	92.141	0.29329	91.448	91.794	92.141	0.29304	-0.021	-0.0105	0	0.012124
1e+12	91.133	91.539	91.763	0.352	91.07	91.462	91.763	0.35514	-0.1679	-0.076967	0	0.084817
5e+12	91.553	91.707	91.805	0.13492	91.385	91.56	91.658	0.15186	-0.1679	-0.14687	-0.1049	0.036344
1e+13	91.574	91.77	91.973	0.19944	91.259	91.406	91.511	0.13105	-0.4617	-0.36377	-0.3148	0.084813

Device Test: 15.11 OUT_ACC_VIN_SUB_3V(VIN|ACCURACY/OUT/2.25/0.6//1000//@OUT_ACC_VIN_SUB_3V)



NDD vs Result Stats



NDD vs Post - Pre Exposure Delta

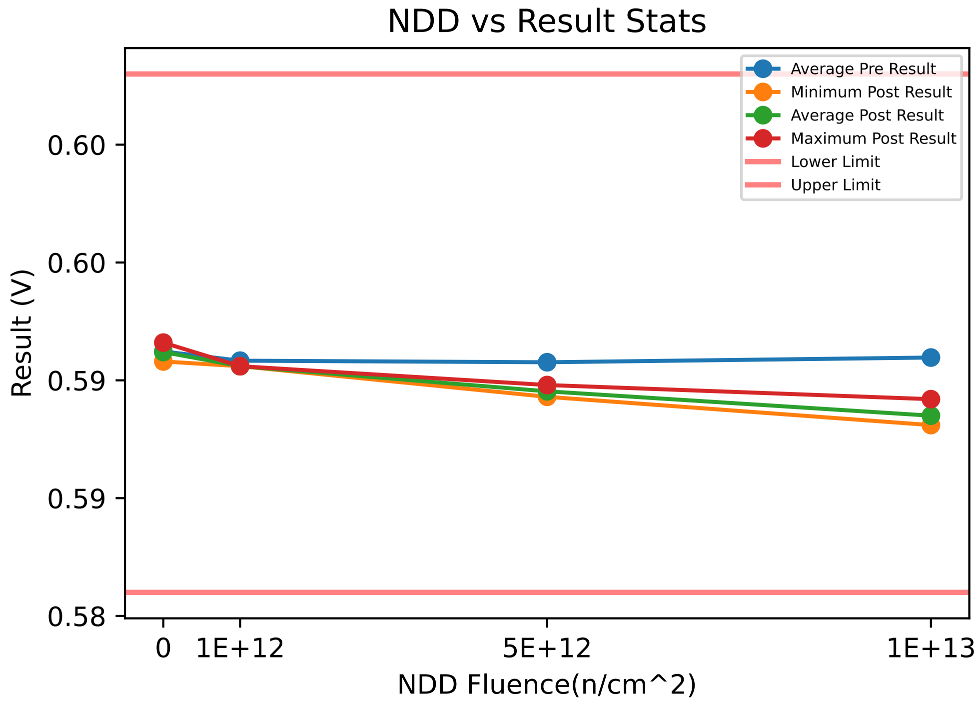
Test Results (Lower Limit = -1.8, Upper Limit = 1.8 (%))

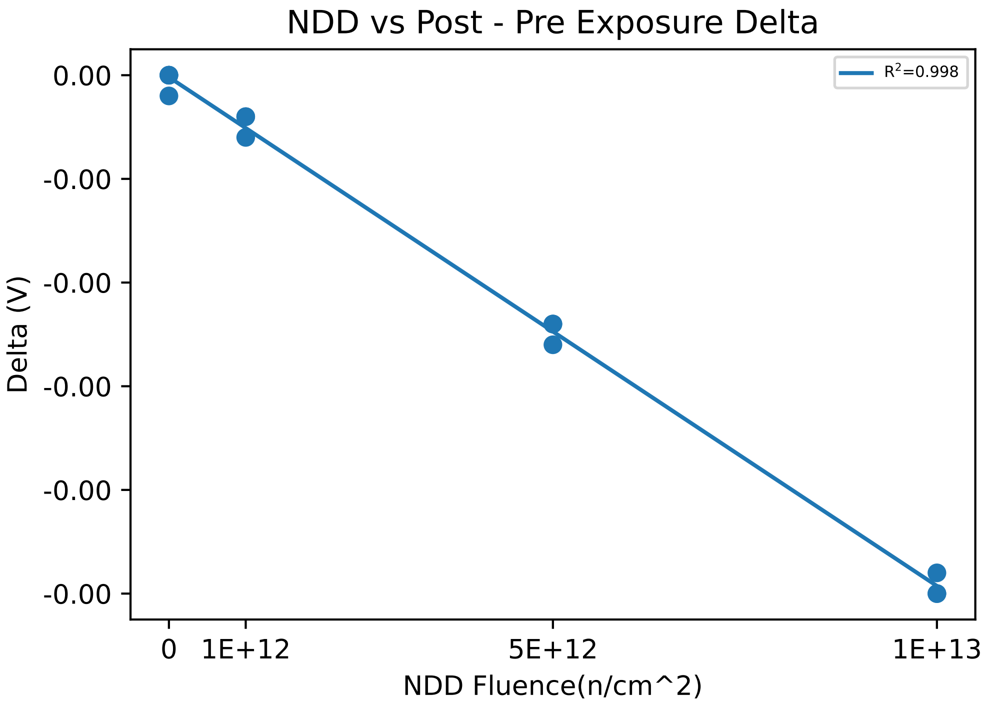
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	-0.0359	-0.073	-0.0371
65	1e+12	NDD unbiased	-0.0365	-0.0761	-0.0396
66	1e+12	NDD unbiased	-0.032	-0.0752	-0.0432
67	1e+13	NDD unbiased	0.0942	-0.3242	-0.4184
68	1e+13	NDD unbiased	-0.0681	-0.4706	-0.4025
70	1e+13	NDD unbiased	-0.0912	-0.5021	-0.4109
71	5e+12	NDD unbiased	-0.0465	-0.2589	-0.2124
72	5e+12	NDD unbiased	-0.0167	-0.2124	-0.1957
73	5e+12	NDD unbiased	-0.0891	-0.3014	-0.2123
187	0	Correlation	-0.0497	-0.0484	0.0013
188	0	Correlation	-0.0325	-0.0384	-0.0059
189	0	Correlation	0.0834	0.0874	0.004
190	0	Correlation	0.0823	0.08	-0.0023

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	-0.0497	0.020875	0.0834	0.071908	-0.0484	0.02015	0.0874	0.073557	-0.0059	-0.000725	0.004	0.0043084
1e+12	-0.0365	-0.0348	-0.032	0.0024434	-0.0761	-0.074767	-0.073	0.0015948	-0.0432	-0.039967	-0.0371	0.0030665
5e+12	-0.0891	-0.050767	-0.0167	0.036388	-0.3014	-0.25757	-0.2124	0.044515	-0.2124	-0.2068	-0.1957	0.009613
1e+13	-0.0912	-0.0217	0.0942	0.10103	-0.5021	-0.4323	-0.3242	0.094933	-0.4184	-0.4106	-0.4025	0.0079542

Device Test: 15.12 VFB_VIN_SUB_3V(FB|VFB/FB/2.25/0.6//1000//@VFB_VIN_SUB_3V)





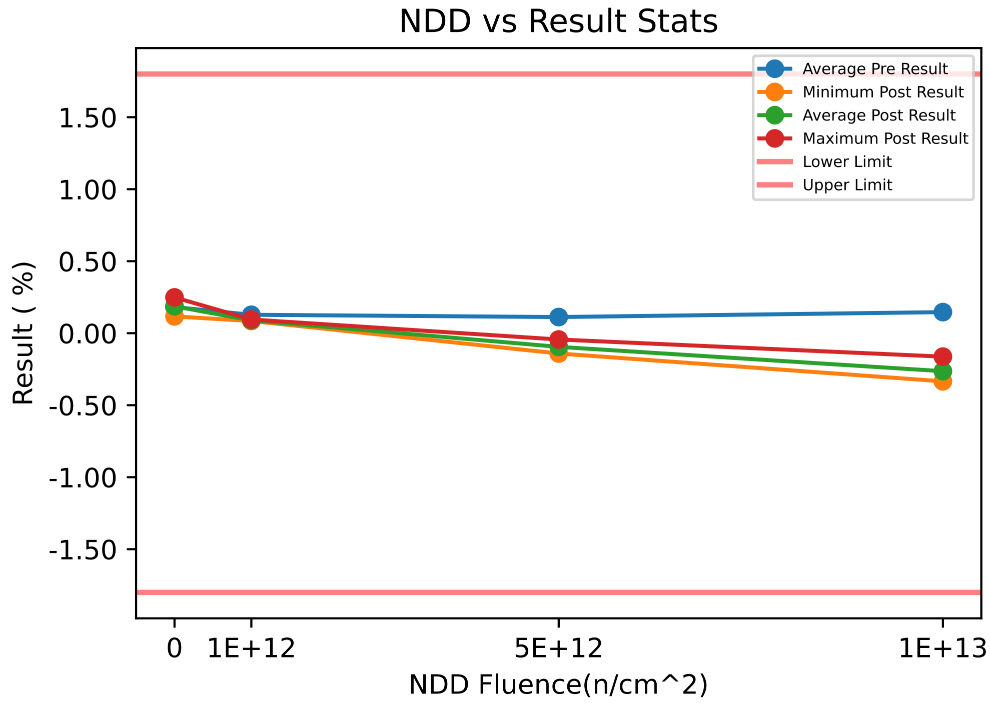
Test Results (Lower Limit = 0.586, Upper Limit = 0.608 (V))

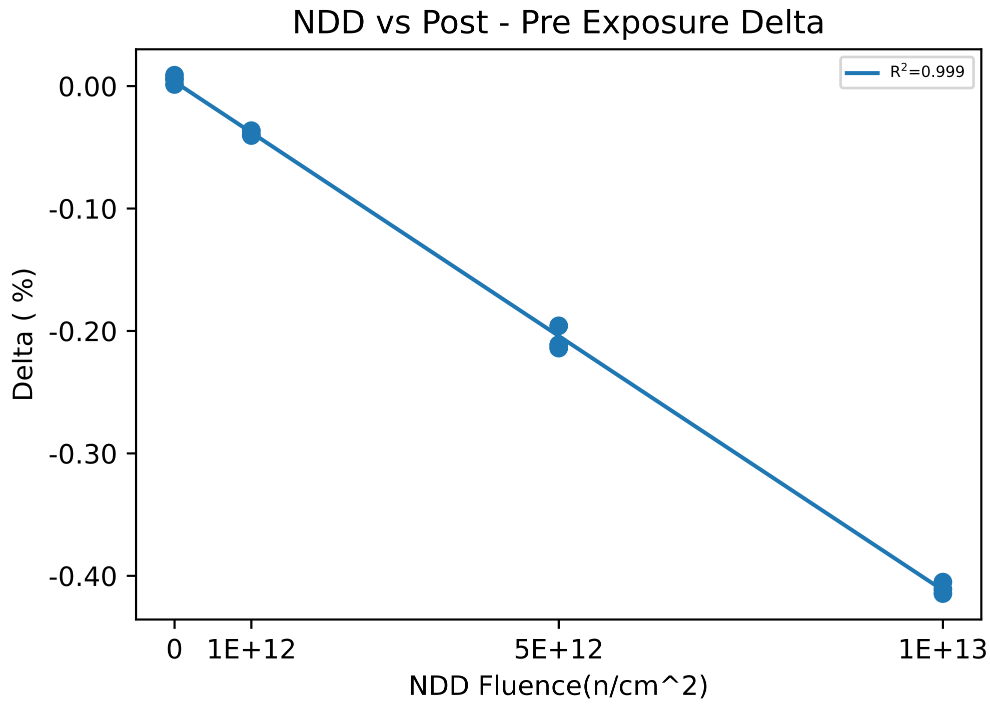
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5958	0.5956	-0.0002
65	1e+12	NDD unbiased	0.5958	0.5956	-0.0002
66	1e+12	NDD unbiased	0.5959	0.5956	-0.0003
67	1e+13	NDD unbiased	0.5967	0.5942	-0.0025
68	1e+13	NDD unbiased	0.5957	0.5932	-0.0025
70	1e+13	NDD unbiased	0.5955	0.5931	-0.0024
71	5e+12	NDD unbiased	0.5958	0.5945	-0.0013
72	5e+12	NDD unbiased	0.596	0.5948	-0.0012
73	5e+12	NDD unbiased	0.5955	0.5943	-0.0012
187	0	Correlation	0.5958	0.5958	0
188	0	Correlation	0.5959	0.5958	-0.0001
189	0	Correlation	0.5966	0.5966	0
190	0	Correlation	0.5966	0.5966	0

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	0.5958	0.59623	0.5966	0.00043493	0.5958	0.5962	0.5966	0.00046188	-0.0001	-2.5e-05	0	5e-05
1e+12	0.5958	0.59583	0.5959	5.7735e-05	0.5956	0.5956	0.5956	0	-0.0003	-0.00023333	-0.0002	5.7735e-05
5e+12	0.5955	0.59577	0.596	0.00025166	0.5943	0.59453	0.5948	0.00025166	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5955	0.59597	0.5967	0.00064291	0.5931	0.5935	0.5942	0.00060828	-0.0025	-0.0024667	-0.0024	5.7735e-05

Device Test: 15.16 OUT_ACC_VIN_SUB_3V(VIN|ACCURACY/OUT/2.5/2.25//10//@OUT_ACC_VIN_SUB_3V)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

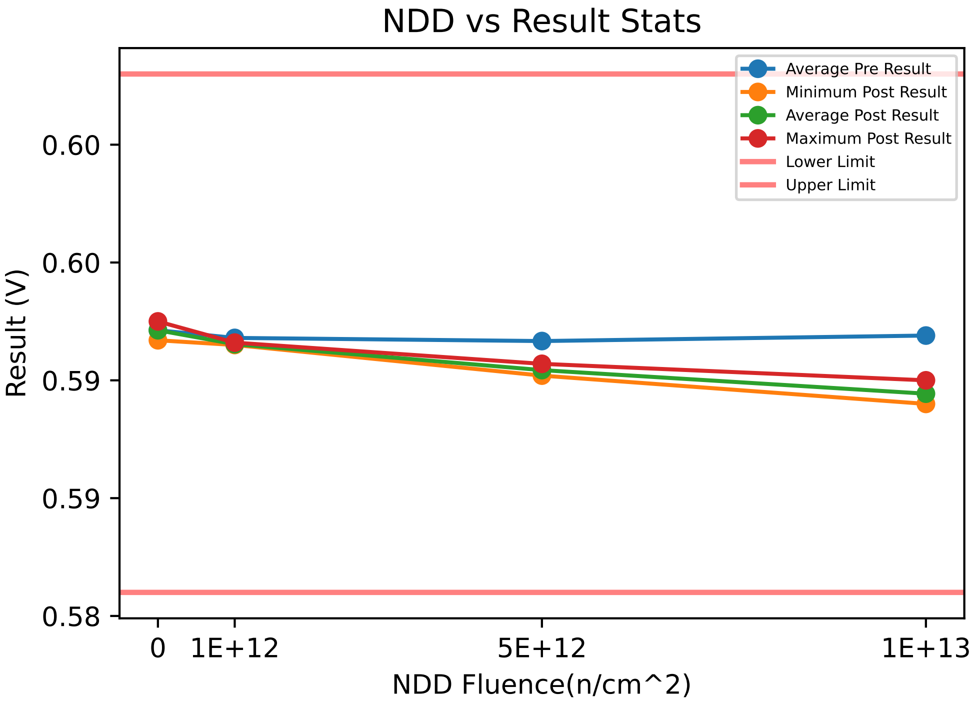
Test Results (Lower Limit = -1.8, Upper Limit = 1.8 (%))

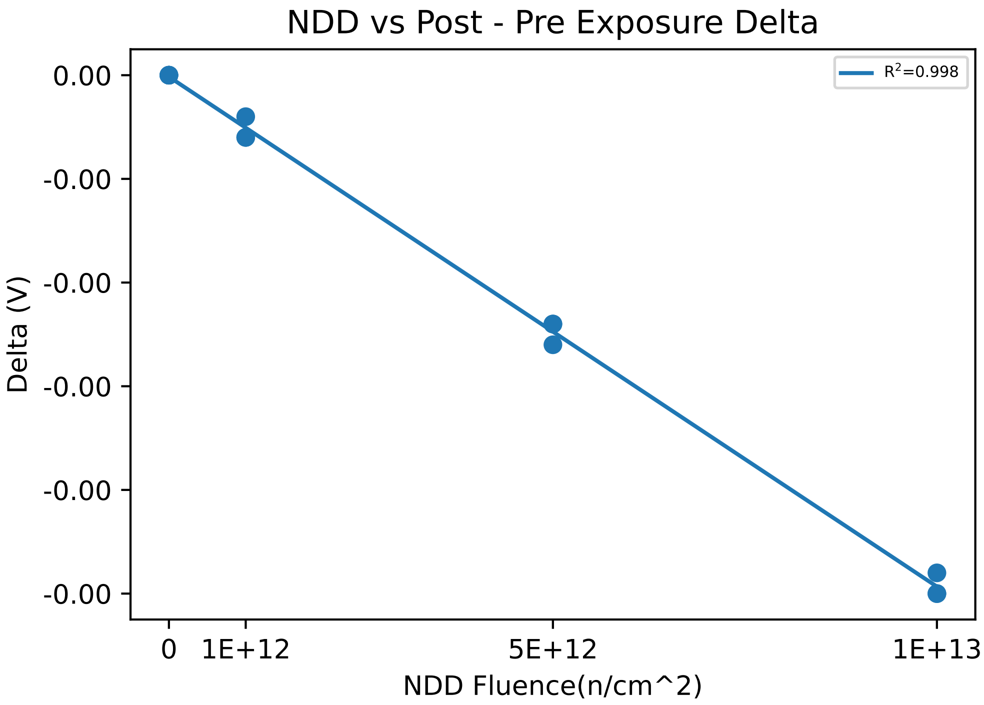
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.1316	0.0952	-0.0364
65	1e+12	NDD unbiased	0.1247	0.0846	-0.0401
66	1e+12	NDD unbiased	0.1275	0.0871	-0.0404
67	1e+13	NDD unbiased	0.2517	-0.1628	-0.4145
68	1e+13	NDD unbiased	0.1109	-0.2942	-0.4051
70	1e+13	NDD unbiased	0.0765	-0.3344	-0.4109
71	5e+12	NDD unbiased	0.1141	-0.0999	-0.214
72	5e+12	NDD unbiased	0.1521	-0.0437	-0.1958
73	5e+12	NDD unbiased	0.0703	-0.1409	-0.2112
187	0	Correlation	0.1106	0.1167	0.0061
188	0	Correlation	0.1323	0.1336	0.0013
189	0	Correlation	0.2394	0.2483	0.0089
190	0	Correlation	0.2432	0.2486	0.0054

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	0.1106	0.18138	0.2432	0.069777	0.1167	0.1868	0.2486	0.071521	0.0013	0.005425	0.0089	0.0031383
1e+12	0.1247	0.12793	0.1316	0.0034704	0.0846	0.088967	0.0952	0.0055411	-0.0404	-0.038967	-0.0364	0.0022279
5e+12	0.0703	0.11217	0.1521	0.040934	-0.1409	-0.094833	-0.0437	0.048798	-0.214	-0.207	-0.1958	0.0098
1e+13	0.0765	0.14637	0.2517	0.092829	-0.3344	-0.2638	-0.1628	0.089748	-0.4145	-0.41017	-0.4051	0.0047427

Device Test: 15.17 VFB_VIN_SUB_3V(FB|VFB/FB/2.5/2.25//10//@VFB_VIN_SUB_3V)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

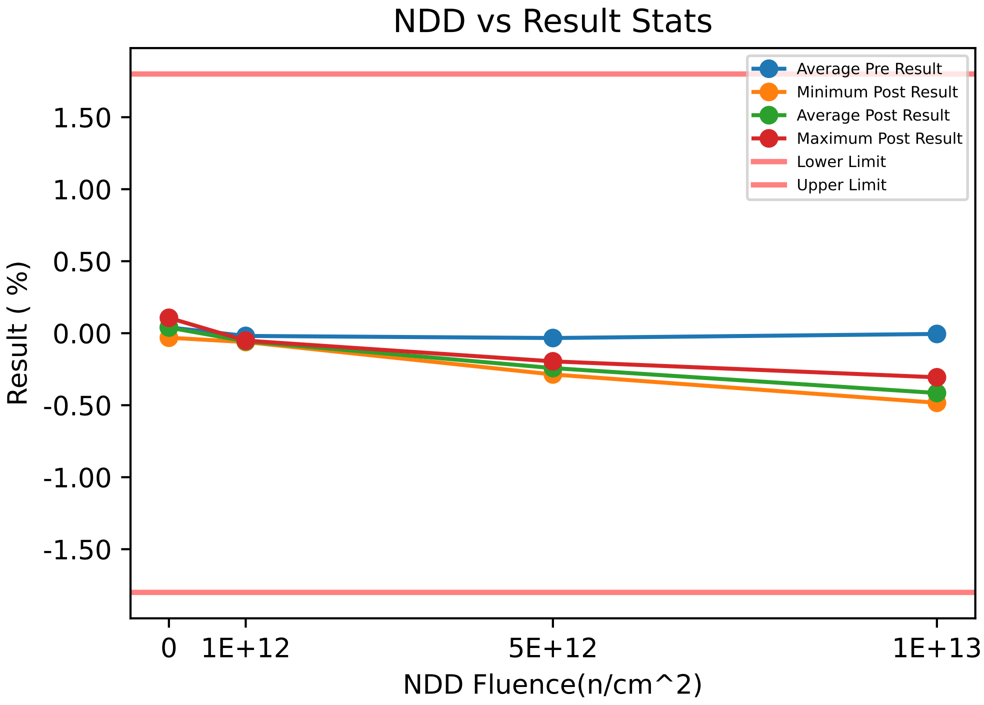
Test Results (Lower Limit = 0.586, Upper Limit = 0.608 (V))

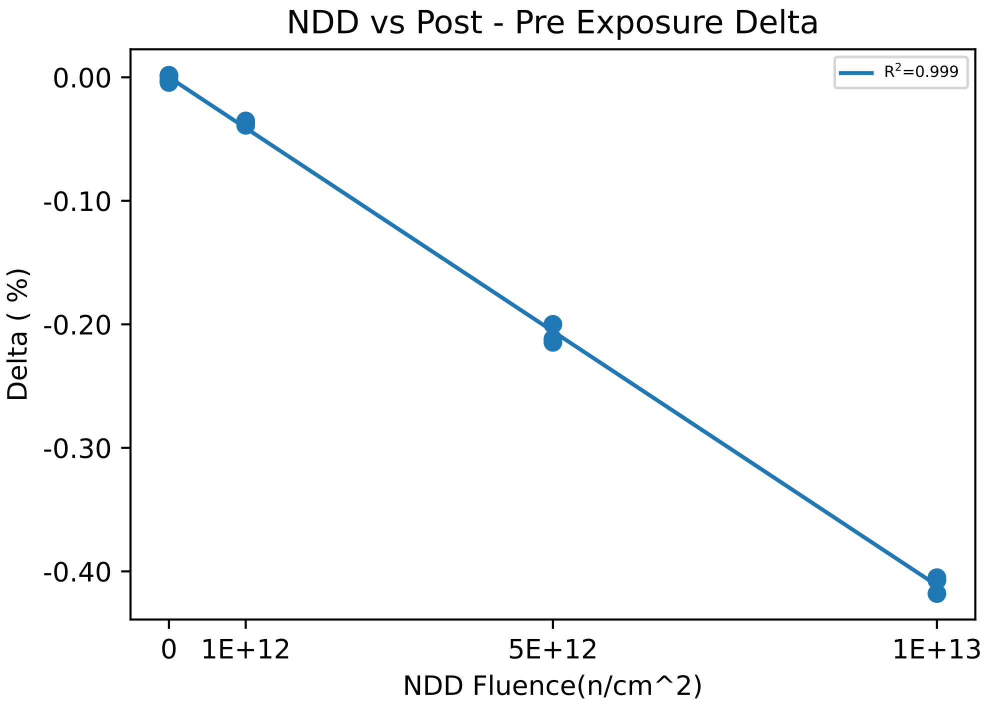
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5968	0.5966	-0.0002
65	1e+12	NDD unbiased	0.5968	0.5965	-0.0003
66	1e+12	NDD unbiased	0.5968	0.5965	-0.0003
67	1e+13	NDD unbiased	0.5975	0.595	-0.0025
68	1e+13	NDD unbiased	0.5967	0.5943	-0.0024
70	1e+13	NDD unbiased	0.5965	0.594	-0.0025
71	5e+12	NDD unbiased	0.5967	0.5954	-0.0013
72	5e+12	NDD unbiased	0.5969	0.5957	-0.0012
73	5e+12	NDD unbiased	0.5964	0.5952	-0.0012
187	0	Correlation	0.5967	0.5967	0
188	0	Correlation	0.5968	0.5968	0
189	0	Correlation	0.5975	0.5975	0
190	0	Correlation	0.5975	0.5975	0

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	0.5967	0.59713	0.5975	0.00043493	0.5967	0.59713	0.5975	0.00043493	0	0	0	0
1e+12	0.5968	0.5968	0.5968	0	0.5965	0.59653	0.5966	5.7735e-05	-0.0003	-0.00026667	-0.0002	5.7735e-05
5e+12	0.5964	0.59667	0.5969	0.00025166	0.5952	0.59543	0.5957	0.00025166	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5965	0.5969	0.5975	0.00052915	0.594	0.59443	0.595	0.00051316	-0.0025	-0.0024667	-0.0024	5.7735e-05

Device Test: 15.21 OUT_ACC_VIN_SUB_3V(VIN|ACCURACY/OUT/2.25/1.1//1000//@OUT_ACC_VIN_SUB_3V)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

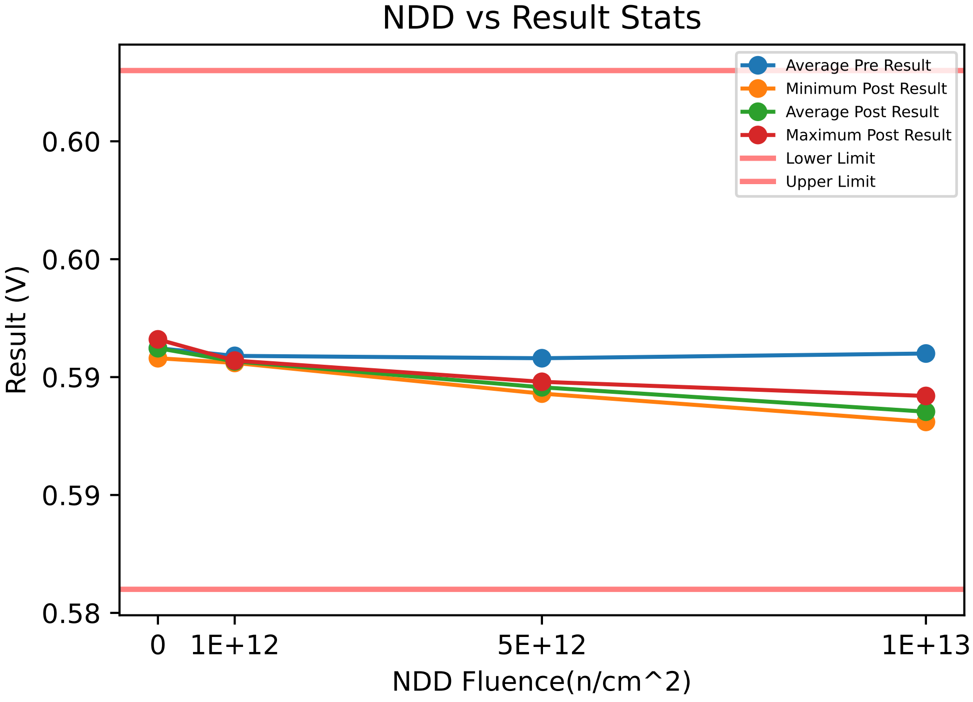
Test Results (Lower Limit = -1.8, Upper Limit = 1.8 (%))

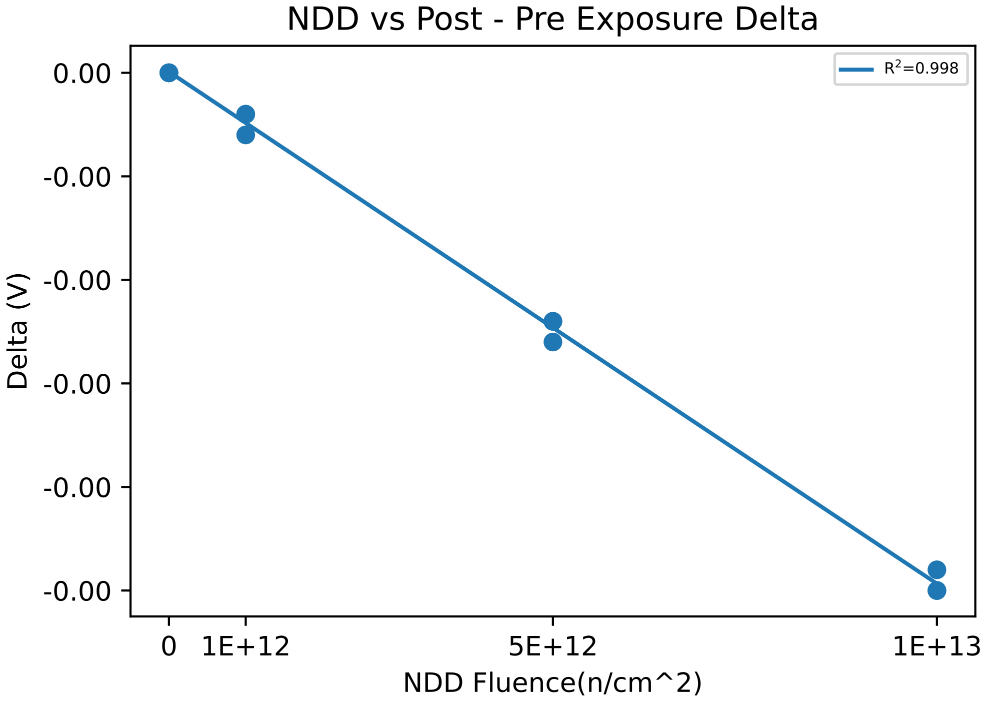
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	-0.016	-0.0513	-0.0353
65	1e+12	NDD unbiased	-0.0226	-0.0615	-0.0389
66	1e+12	NDD unbiased	-0.0181	-0.056	-0.0379
67	1e+13	NDD unbiased	0.1117	-0.3063	-0.418
68	1e+13	NDD unbiased	-0.0492	-0.4564	-0.4072
70	1e+13	NDD unbiased	-0.0781	-0.4832	-0.4051
71	5e+12	NDD unbiased	-0.0302	-0.2448	-0.2146
72	5e+12	NDD unbiased	0.0045	-0.1955	-0.2
73	5e+12	NDD unbiased	-0.0746	-0.2865	-0.2119
187	0	Correlation	-0.0318	-0.0313	0.0005
188	0	Correlation	-0.015	-0.0192	-0.0042
189	0	Correlation	0.105	0.1067	0.0017
190	0	Correlation	0.1039	0.1012	-0.0027

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	-0.0318	0.040525	0.105	0.074134	-0.0313	0.03935	0.1067	0.074791	-0.0042	-0.001175	0.0017	0.0027415
1e+12	-0.0226	-0.0189	-0.016	0.0033719	-0.0615	-0.056267	-0.0513	0.0051052	-0.0389	-0.037367	-0.0353	0.0018583
5e+12	-0.0746	-0.033433	0.0045	0.039649	-0.2865	-0.24227	-0.1955	0.045553	-0.2146	-0.20883	-0.2	0.0077681
1e+13	-0.0781	-0.0052	0.1117	0.10226	-0.4832	-0.4153	-0.3063	0.095343	-0.418	-0.4101	-0.4051	0.0069217

Device Test: 15.22 VFB_VIN_SUB_3V(FB|VFB/FB/2.25/1.1//1000//@VFB_VIN_SUB_3V)





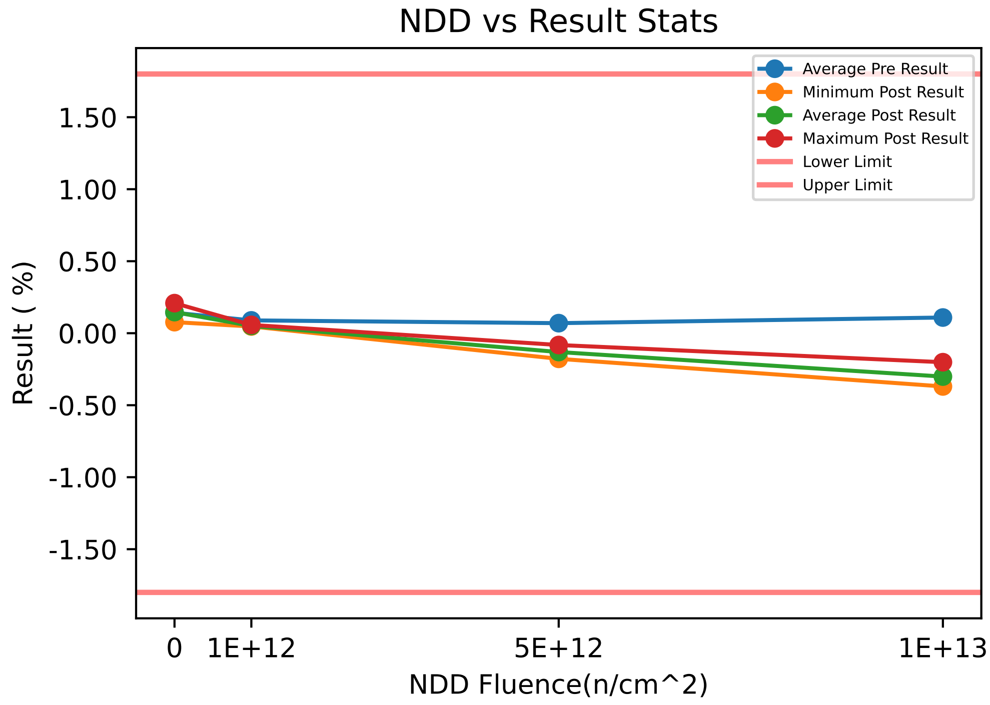
Test Results (Lower Limit = 0.586, Upper Limit = 0.608 (V))

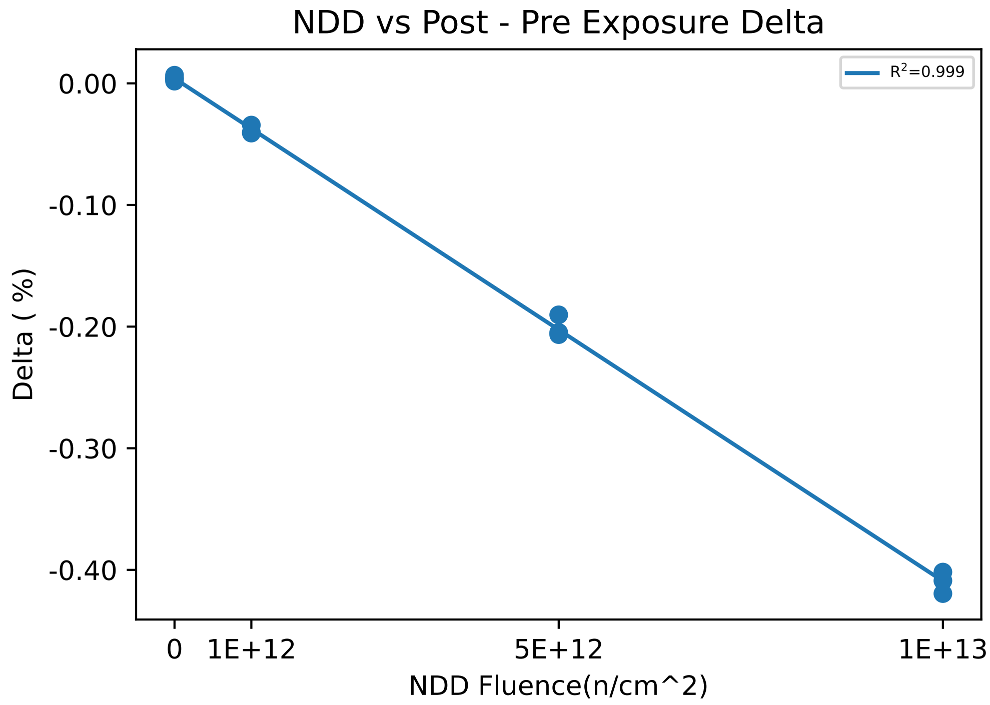
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5959	0.5957	-0.0002
65	1e+12	NDD unbiased	0.5959	0.5956	-0.0003
66	1e+12	NDD unbiased	0.5959	0.5957	-0.0002
67	1e+13	NDD unbiased	0.5967	0.5942	-0.0025
68	1e+13	NDD unbiased	0.5957	0.5933	-0.0024
70	1e+13	NDD unbiased	0.5956	0.5931	-0.0025
71	5e+12	NDD unbiased	0.5958	0.5946	-0.0012
72	5e+12	NDD unbiased	0.596	0.5948	-0.0012
73	5e+12	NDD unbiased	0.5956	0.5943	-0.0013
187	0	Correlation	0.5958	0.5958	0
188	0	Correlation	0.5959	0.5959	0
189	0	Correlation	0.5966	0.5966	0
190	0	Correlation	0.5966	0.5966	0

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	0.5958	0.59623	0.5966	0.00043493	0.5958	0.59623	0.5966	0.00043493	0	0	0	0
1e+12	0.5959	0.5959	0.5959	0	0.5956	0.59567	0.5957	5.7735e-05	-0.0003	-0.00023333	-0.0002	5.7735e-05
5e+12	0.5956	0.5958	0.596	0.0002	0.5943	0.59457	0.5948	0.00025166	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5956	0.596	0.5967	0.00060828	0.5931	0.59353	0.5942	0.00058595	-0.0025	-0.0024667	-0.0024	5.7735e-05

Device Test: 15.26 OUT_ACC_VIN_SUB_3V(INFO|ACCURACY/OUT/3/0.6//10//@OUT_ACC_VIN_SUB_3V)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

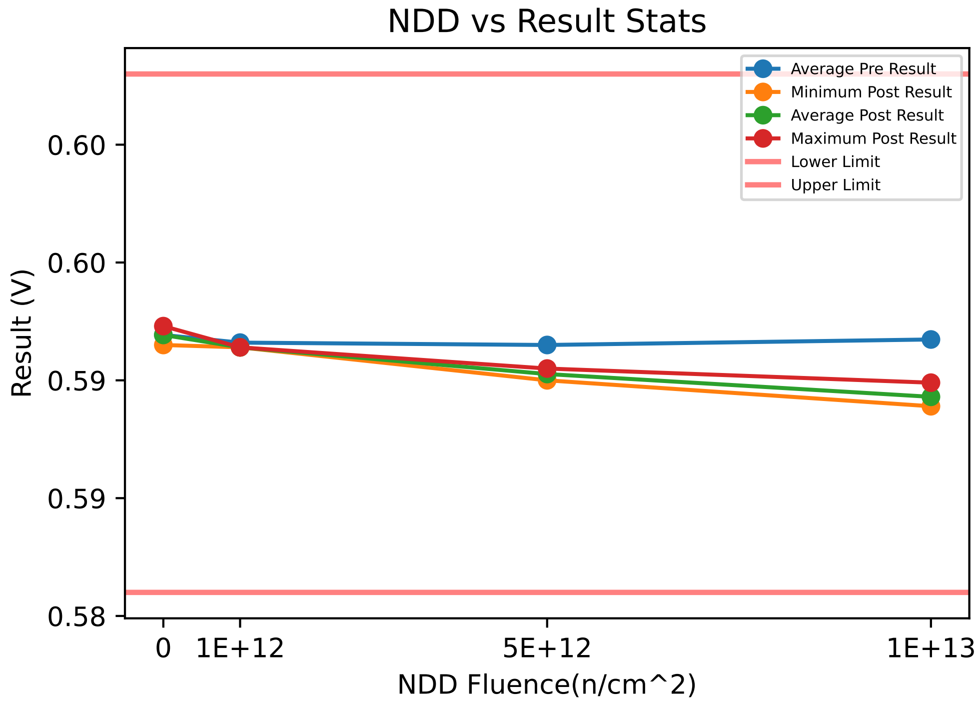
Test Results (Lower Limit = -1.8, Upper Limit = 1.8 (%))

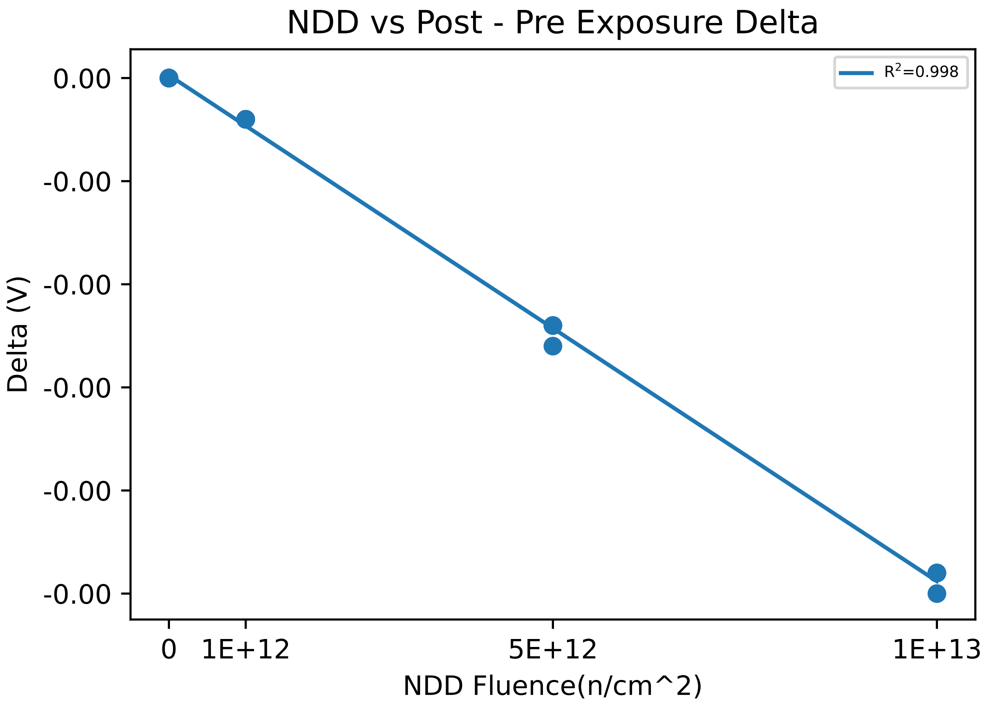
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.0919	0.0576	-0.0343
65	1e+12	NDD unbiased	0.0874	0.0472	-0.0402
66	1e+12	NDD unbiased	0.0877	0.0468	-0.0409
67	1e+13	NDD unbiased	0.2181	-0.2014	-0.4195
68	1e+13	NDD unbiased	0.0693	-0.3325	-0.4018
70	1e+13	NDD unbiased	0.0391	-0.3698	-0.4089
71	5e+12	NDD unbiased	0.0741	-0.1325	-0.2066
72	5e+12	NDD unbiased	0.1083	-0.082	-0.1903
73	5e+12	NDD unbiased	0.0268	-0.178	-0.2048
187	0	Correlation	0.0723	0.0768	0.0045
188	0	Correlation	0.0902	0.092	0.0018
189	0	Correlation	0.202	0.2087	0.0067
190	0	Correlation	0.2046	0.2082	0.0036

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	0.0723	0.14228	0.2046	0.070851	0.0768	0.14642	0.2087	0.071889	0.0018	0.00415	0.0067	0.0020372
1e+12	0.0874	0.089	0.0919	0.0025159	0.0468	0.050533	0.0576	0.0061232	-0.0409	-0.038467	-0.0343	0.0036254
5e+12	0.0268	0.069733	0.1083	0.040925	-0.178	-0.13083	-0.082	0.048022	-0.2066	-0.20057	-0.1903	0.0089366
1e+13	0.0391	0.10883	0.2181	0.095825	-0.3698	-0.30123	-0.2014	0.088447	-0.4195	-0.41007	-0.4018	0.0089075

Device Test: 15.27 VFB_VIN_SUB_3V(FB|VFB/FB/3/0.6//10//@VFB_VIN_SUB_3V)





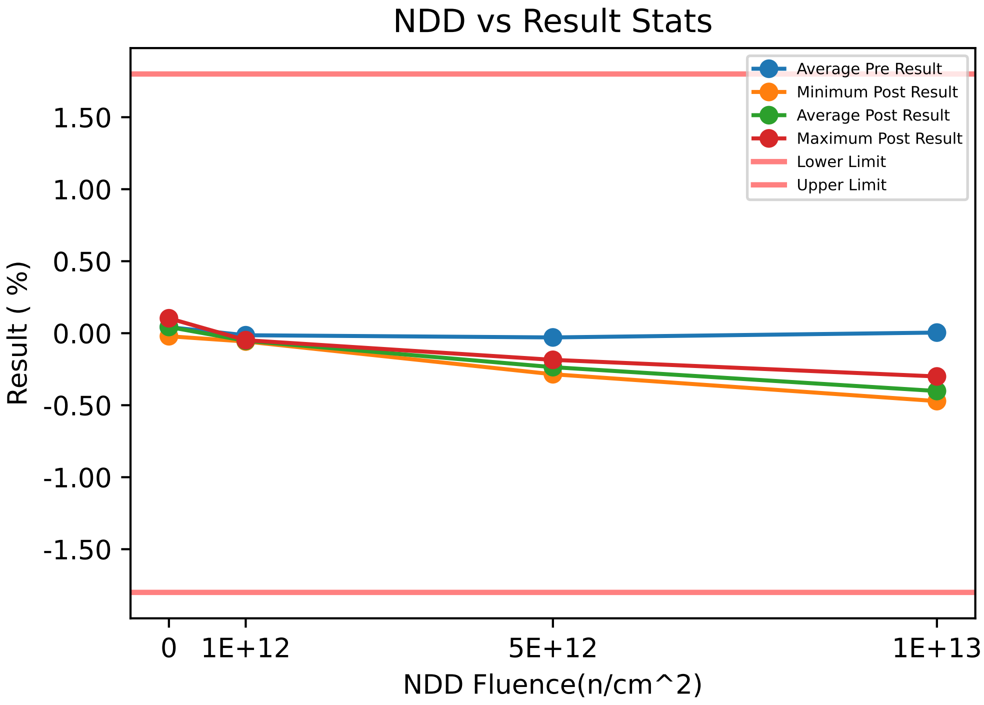
Test Results (Lower Limit = 0.586, Upper Limit = 0.608 (V))

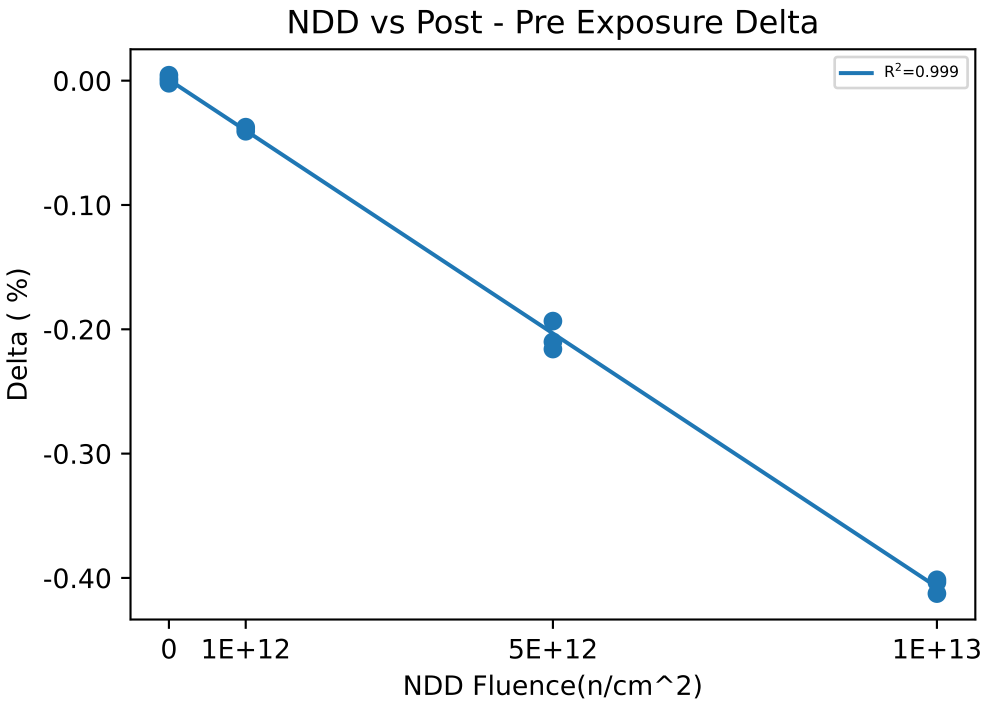
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
65	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
66	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
67	1e+13	NDD unbiased	0.5974	0.5949	-0.0025
68	1e+13	NDD unbiased	0.5965	0.5941	-0.0024
70	1e+13	NDD unbiased	0.5963	0.5939	-0.0024
71	5e+12	NDD unbiased	0.5965	0.5953	-0.0012
72	5e+12	NDD unbiased	0.5967	0.5955	-0.0012
73	5e+12	NDD unbiased	0.5963	0.595	-0.0013
187	0	Correlation	0.5965	0.5965	0
188	0	Correlation	0.5966	0.5966	0
189	0	Correlation	0.5973	0.5973	0
190	0	Correlation	0.5973	0.5973	0

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	0.5965	0.59693	0.5973	0.00043493	0.5965	0.59693	0.5973	0.00043493	0	0	0	0
1e+12	0.5966	0.5966	0.5966	0	0.5964	0.5964	0.5964	0	-0.0002	-0.0002	-0.0002	0
5e+12	0.5963	0.5965	0.5967	0.0002	0.595	0.59527	0.5955	0.00025166	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5963	0.59673	0.5974	0.00058595	0.5939	0.5943	0.5949	0.00052915	-0.0025	-0.0024333	-0.0024	5.7735e-05

Device Test: 15.31 OUT_ACC_VIN_SUB_3V(INFO|ACCURACY/OUT/3/0.6//1000//@OUT_ACC_VIN_SUB_3V)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

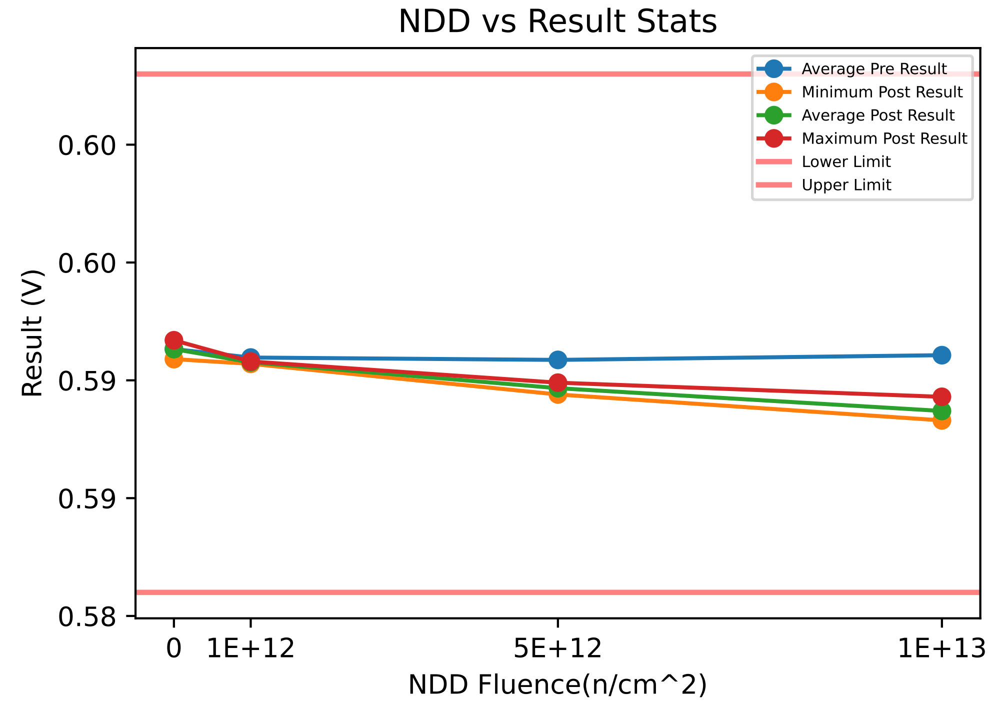
Test Results (Lower Limit = -1.8, Upper Limit = 1.8 (%))

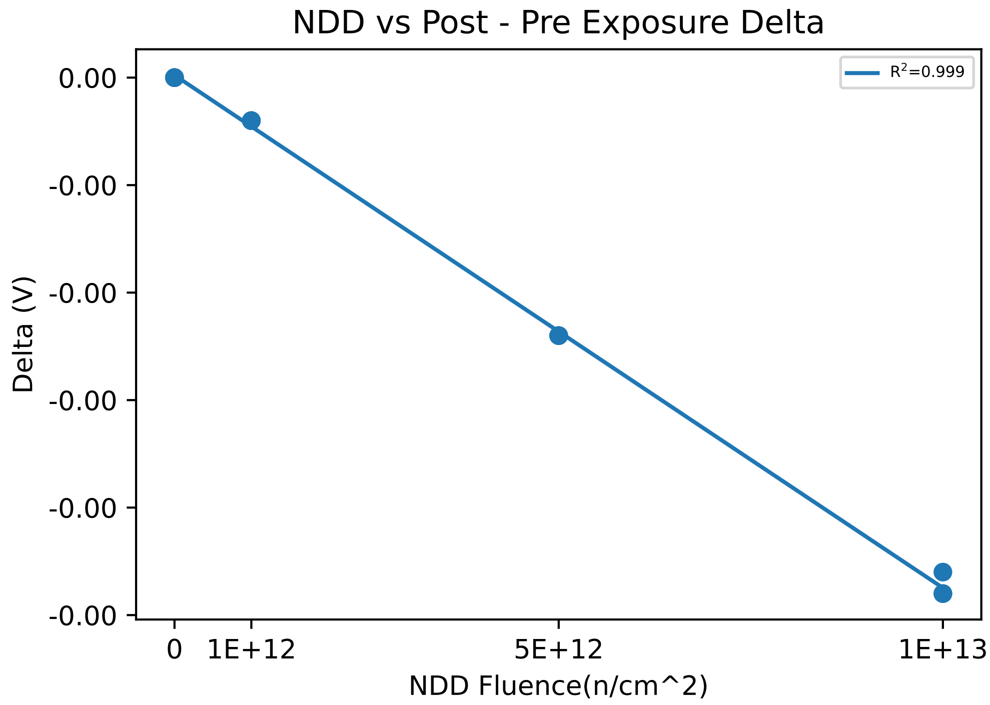
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	-0.0098	-0.0483	-0.0385
65	1e+12	NDD unbiased	-0.0204	-0.0578	-0.0374
66	1e+12	NDD unbiased	-0.0121	-0.0528	-0.0407
67	1e+13	NDD unbiased	0.1122	-0.3004	-0.4126
68	1e+13	NDD unbiased	-0.0312	-0.4327	-0.4015
70	1e+13	NDD unbiased	-0.068	-0.4715	-0.4035
71	5e+12	NDD unbiased	-0.0215	-0.2374	-0.2159
72	5e+12	NDD unbiased	0.0084	-0.185	-0.1934
73	5e+12	NDD unbiased	-0.075	-0.2851	-0.2101
187	0	Correlation	-0.0229	-0.0212	0.0017
188	0	Correlation	-0.0054	-0.0075	-0.0021
189	0	Correlation	0.1034	0.1037	0.0003
190	0	Correlation	0.0932	0.0976	0.0044

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	-0.0229	0.042075	0.1034	0.065448	-0.0212	0.04315	0.1037	0.066677	-0.0021	0.001075	0.0044	0.0027158
1e+12	-0.0204	-0.0141	-0.0098	0.0055758	-0.0578	-0.052967	-0.0483	0.0047522	-0.0407	-0.038867	-0.0374	0.0016803
5e+12	-0.075	-0.029367	0.0084	0.042253	-0.2851	-0.23583	-0.185	0.050068	-0.2159	-0.20647	-0.1934	0.011682
1e+13	-0.068	0.0043333	0.1122	0.09521	-0.4715	-0.40153	-0.3004	0.089707	-0.4126	-0.40587	-0.4015	0.0059164

Device Test: 15.32 VFB_VIN_SUB_3V(FB|VFB/FB/3/0.6//1000//@VFB_VIN_SUB_3V)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

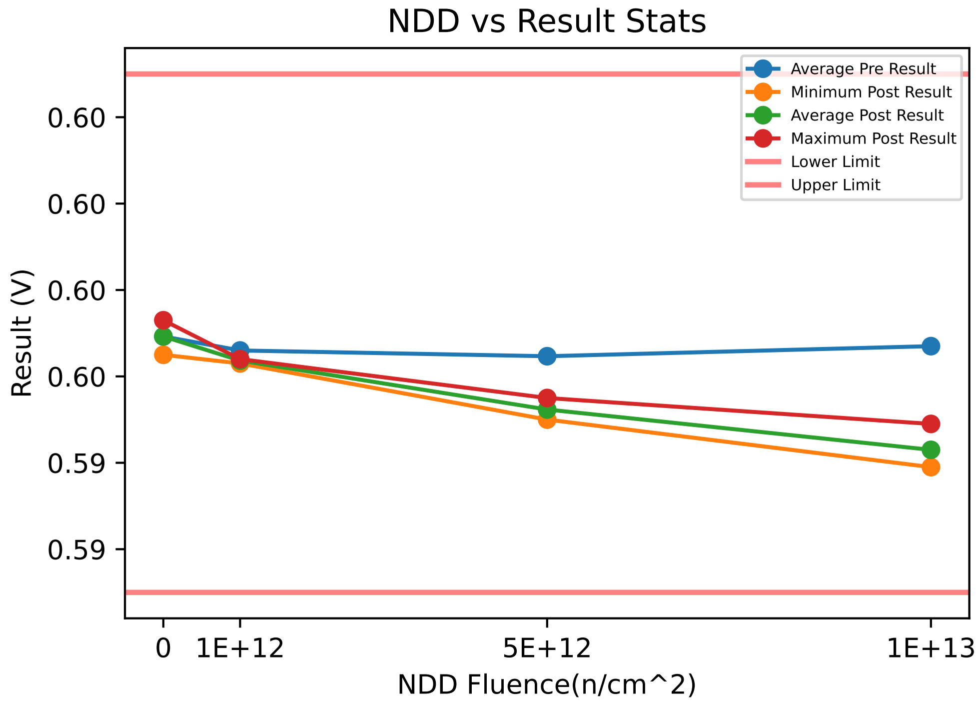
Test Results (Lower Limit = 0.586, Upper Limit = 0.608 (V))

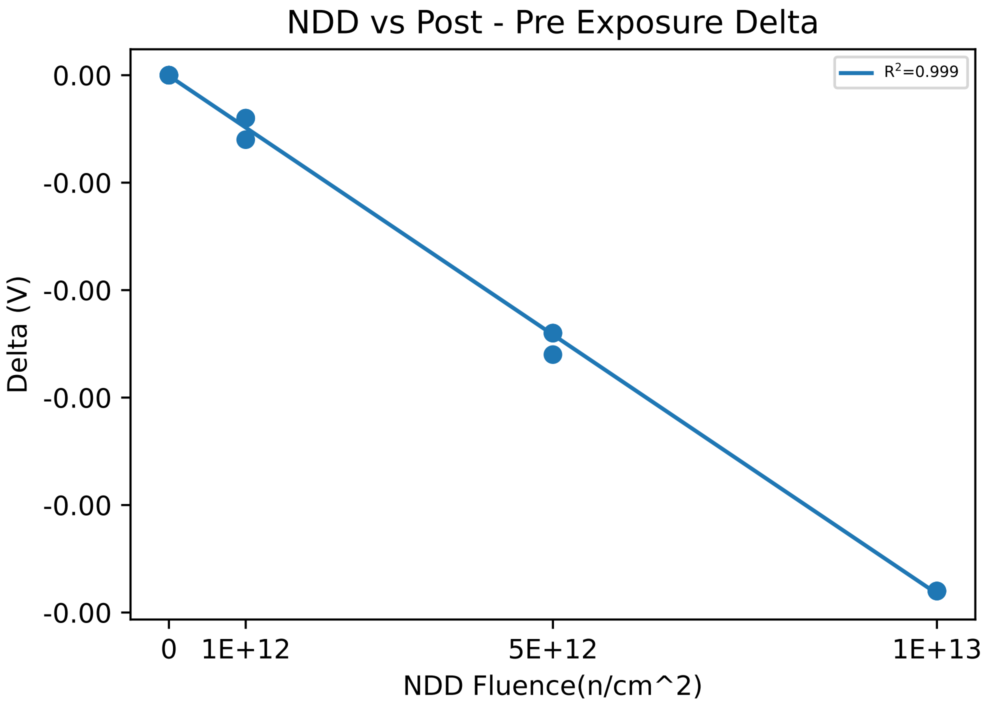
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.596	0.5958	-0.0002
65	1e+12	NDD unbiased	0.5959	0.5957	-0.0002
66	1e+12	NDD unbiased	0.596	0.5958	-0.0002
67	1e+13	NDD unbiased	0.5967	0.5943	-0.0024
68	1e+13	NDD unbiased	0.5959	0.5935	-0.0024
70	1e+13	NDD unbiased	0.5956	0.5933	-0.0023
71	5e+12	NDD unbiased	0.5959	0.5947	-0.0012
72	5e+12	NDD unbiased	0.5961	0.5949	-0.0012
73	5e+12	NDD unbiased	0.5956	0.5944	-0.0012
187	0	Correlation	0.5959	0.5959	0
188	0	Correlation	0.596	0.596	0
189	0	Correlation	0.5967	0.5967	0
190	0	Correlation	0.5967	0.5967	0

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	0.5959	0.59632	0.5967	0.00043493	0.5959	0.59632	0.5967	0.00043493	0	0	0	0
1e+12	0.5959	0.59597	0.596	5.7735e-05	0.5957	0.59577	0.5958	5.7735e-05	-0.0002	-0.0002	-0.0002	0
5e+12	0.5956	0.59587	0.5961	0.00025166	0.5944	0.59467	0.5949	0.00025166	-0.0012	-0.0012	-0.0012	0
1e+13	0.5956	0.59607	0.5967	0.00056862	0.5933	0.5937	0.5943	0.00052915	-0.0024	-0.0023667	-0.0023	5.7735e-05

Device Test: 15.36 VFB_25C(FB|VFB/FB/3.3/0.6//10//@VFB_25C)





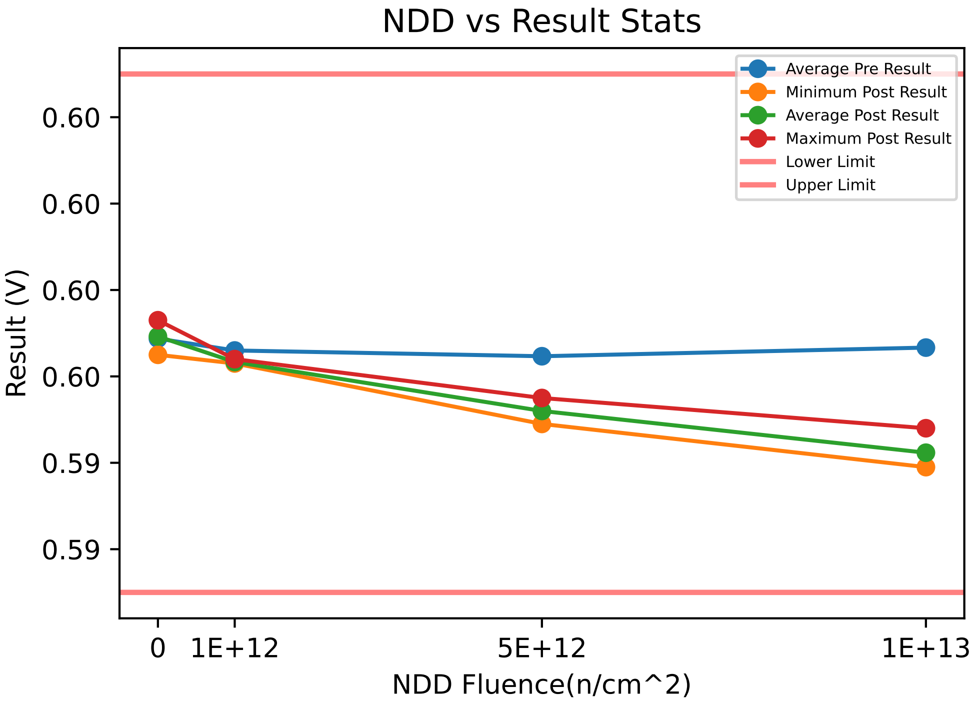
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

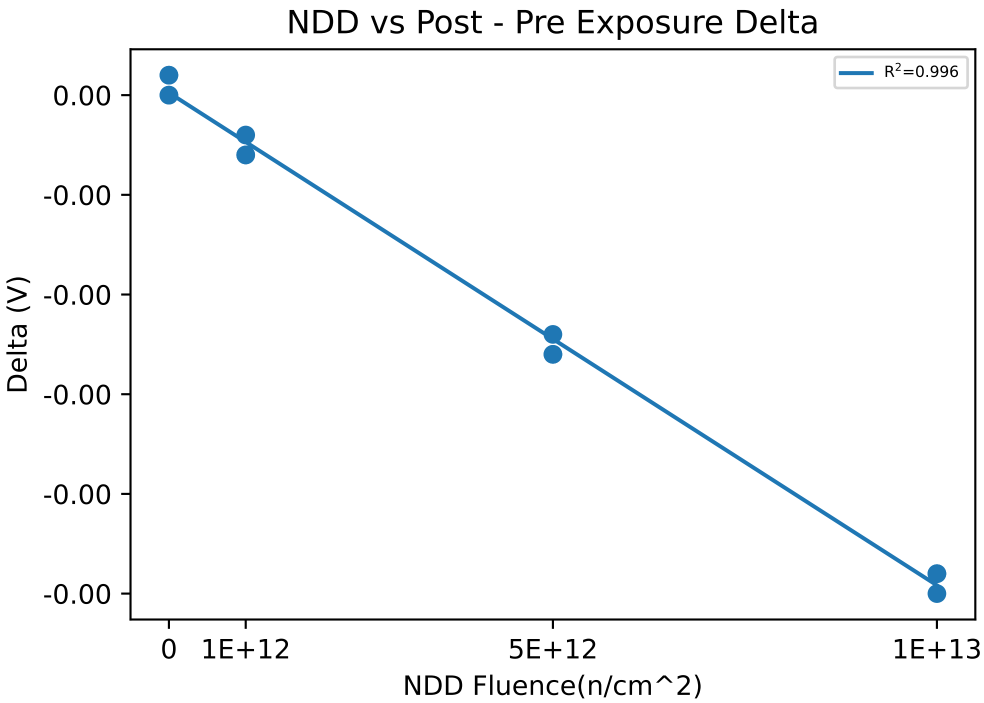
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
65	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
66	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
67	1e+13	NDD unbiased	0.5973	0.5949	-0.0024
68	1e+13	NDD unbiased	0.5965	0.5941	-0.0024
70	1e+13	NDD unbiased	0.5963	0.5939	-0.0024
71	5e+12	NDD unbiased	0.5965	0.5952	-0.0013
72	5e+12	NDD unbiased	0.5967	0.5955	-0.0012
73	5e+12	NDD unbiased	0.5962	0.595	-0.0012
187	0	Correlation	0.5965	0.5965	0
188	0	Correlation	0.5966	0.5966	0
189	0	Correlation	0.5973	0.5973	0
190	0	Correlation	0.5973	0.5973	0

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	0.5965	0.59693	0.5973	0.00043493	0.5965	0.59693	0.5973	0.00043493	0	0	0	0
1e+12	0.5966	0.5966	0.5966	0	0.5963	0.59637	0.5964	5.7735e-05	-0.0003	-0.00023333	-0.0002	5.7735e-05
5e+12	0.5962	0.59647	0.5967	0.00025166	0.595	0.59523	0.5955	0.00025166	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5963	0.5967	0.5973	0.00052915	0.5939	0.5943	0.5949	0.00052915	-0.0024	-0.0024	-0.0024	0

Device Test: 15.40 VFB_25C(OUTPUT|VFB_25C/FB/5/0.6//10//@VFB_25C)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

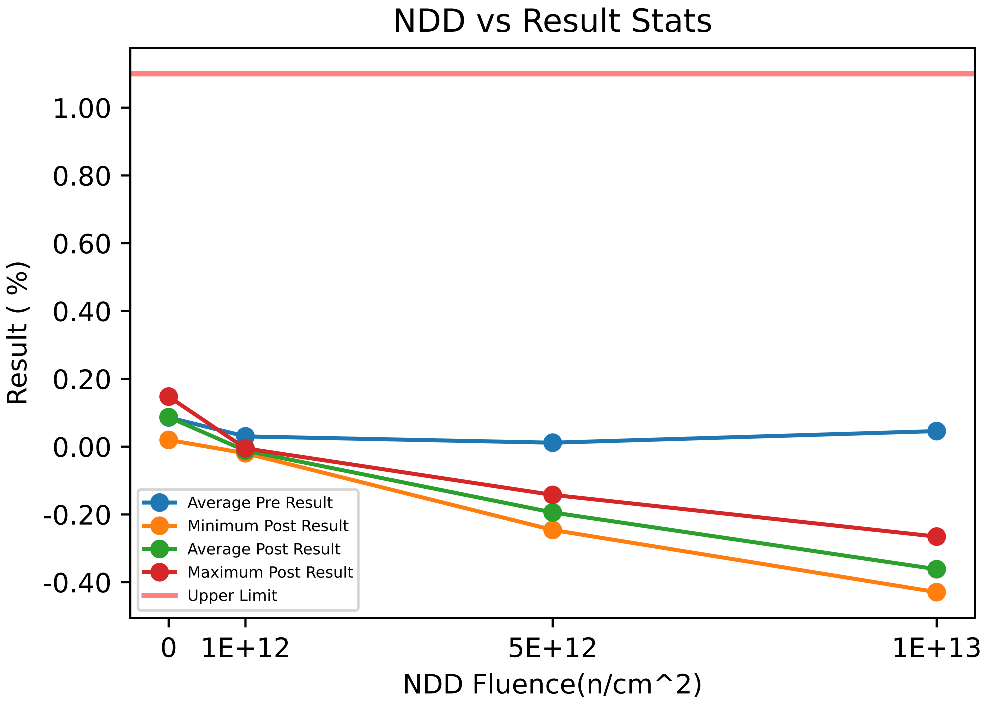
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

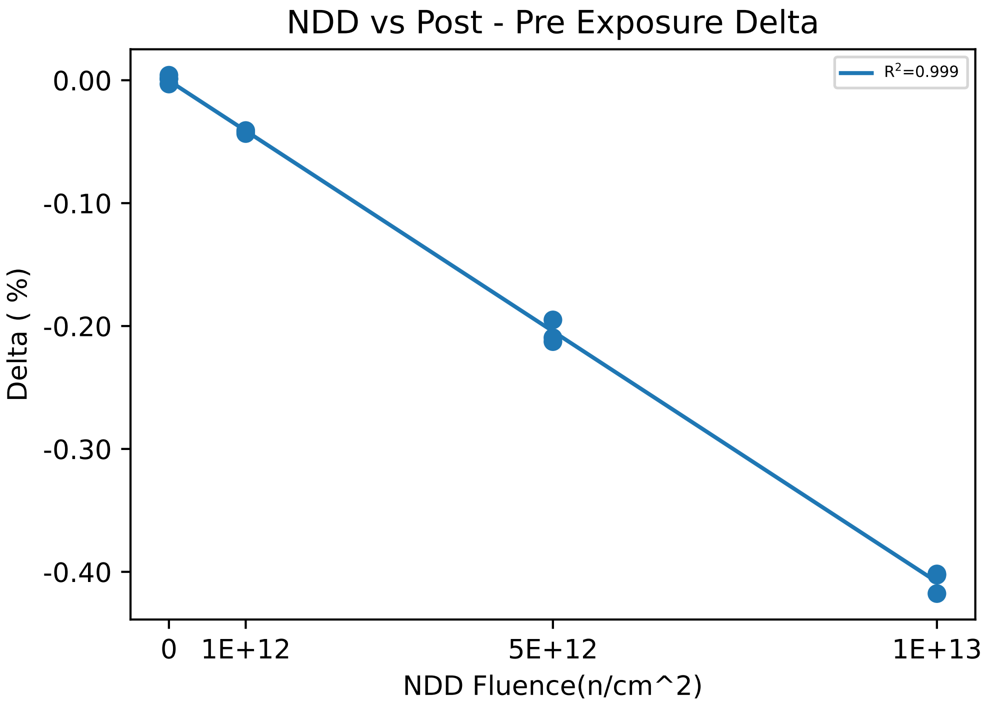
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
65	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
66	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
67	1e+13	NDD unbiased	0.5973	0.5948	-0.0025
68	1e+13	NDD unbiased	0.5964	0.594	-0.0024
70	1e+13	NDD unbiased	0.5963	0.5939	-0.0024
71	5e+12	NDD unbiased	0.5965	0.5952	-0.0013
72	5e+12	NDD unbiased	0.5967	0.5955	-0.0012
73	5e+12	NDD unbiased	0.5962	0.5949	-0.0013
187	0	Correlation	0.5965	0.5965	0
188	0	Correlation	0.5966	0.5966	0
189	0	Correlation	0.5972	0.5973	0.0001
190	0	Correlation	0.5972	0.5973	0.0001

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	0.5965	0.59688	0.5972	0.00037749	0.5965	0.59693	0.5973	0.00043493	0	5e-05	0.0001	5.7735e-05
1e+12	0.5966	0.5966	0.5966	0	0.5963	0.59633	0.5964	5.7735e-05	-0.0003	-0.00026667	-0.0002	5.7735e-05
5e+12	0.5962	0.59647	0.5967	0.00025166	0.5949	0.5952	0.5955	0.0003	-0.0013	-0.0012667	-0.0012	5.7735e-05
1e+13	0.5963	0.59667	0.5973	0.00055076	0.5939	0.59423	0.5948	0.00049329	-0.0025	-0.0024333	-0.0024	5.7735e-05

Device Test: 15.44 OUT_ACC_25C(VIN|ACCURACY/OUT/5/3.3//1000//@OUT_ACC_25C)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

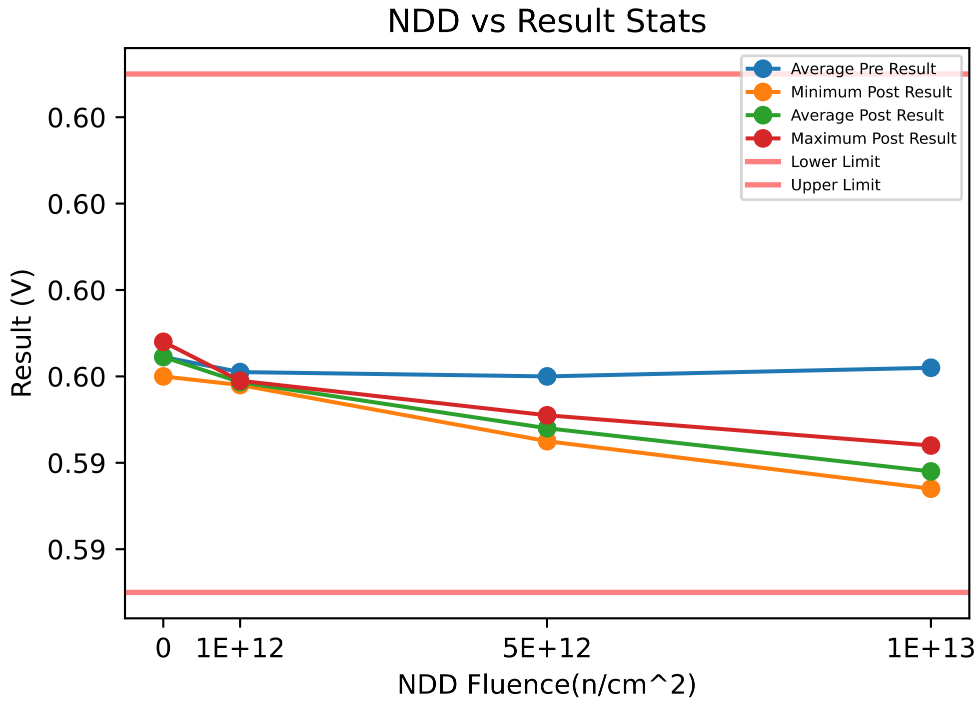
Test Results (Upper Limit = 1.1 (%))

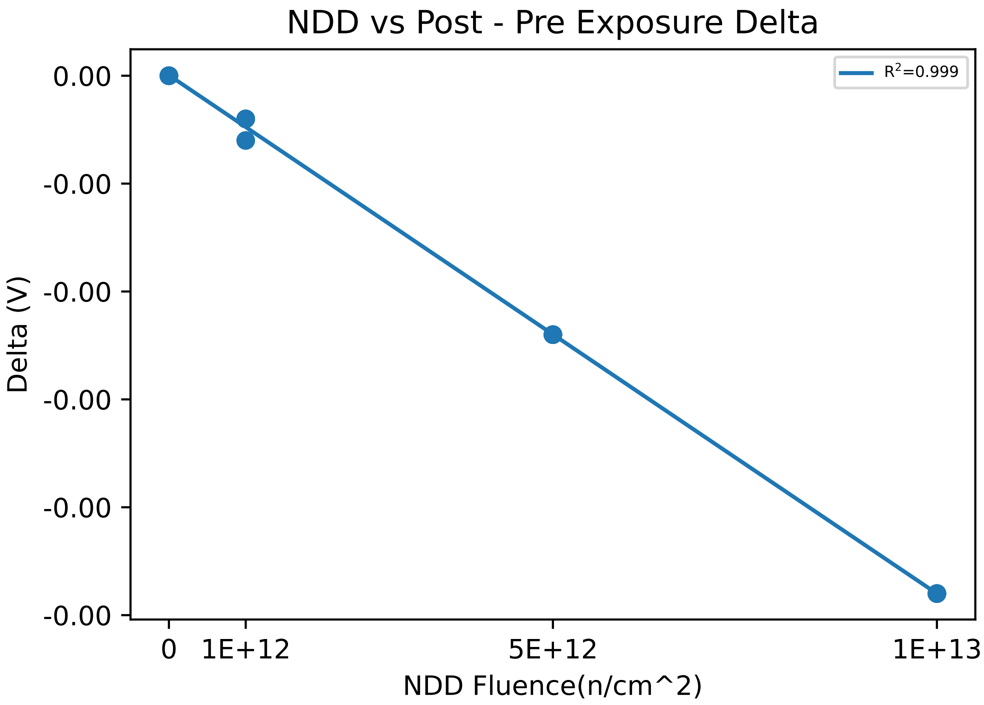
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.0369	-0.0051	-0.042
65	1e+12	NDD unbiased	0.0239	-0.0195	-0.0434
66	1e+12	NDD unbiased	0.0298	-0.0111	-0.0409
67	1e+13	NDD unbiased	0.1524	-0.2653	-0.4177
68	1e+13	NDD unbiased	0.0127	-0.39	-0.4027
70	1e+13	NDD unbiased	-0.0275	-0.4292	-0.4017
71	5e+12	NDD unbiased	0.0185	-0.1942	-0.2127
72	5e+12	NDD unbiased	0.0527	-0.1423	-0.195
73	5e+12	NDD unbiased	-0.0362	-0.2457	-0.2095
187	0	Correlation	0.0188	0.0198	0.001
188	0	Correlation	0.0427	0.0396	-0.0031
189	0	Correlation	0.1436	0.1477	0.0041
190	0	Correlation	0.1396	0.1409	0.0013

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	0.0188	0.086175	0.1436	0.064759	0.0198	0.087	0.1477	0.066714	-0.0031	0.000825	0.0041	0.0029658
1e+12	0.0239	0.0302	0.0369	0.0065092	-0.0195	-0.0119	-0.0051	0.0072333	-0.0434	-0.0421	-0.0409	0.001253
5e+12	-0.0362	0.011667	0.0527	0.044842	-0.2457	-0.19407	-0.1423	0.0517	-0.2127	-0.20573	-0.195	0.009432
1e+13	-0.0275	0.045867	0.1524	0.094425	-0.4292	-0.3615	-0.2653	0.085586	-0.4177	-0.40737	-0.4017	0.0089629

Device Test: 15.45 VFB_25C(FB|VFB/FB/5/3.3//1000//@VFB_25C)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

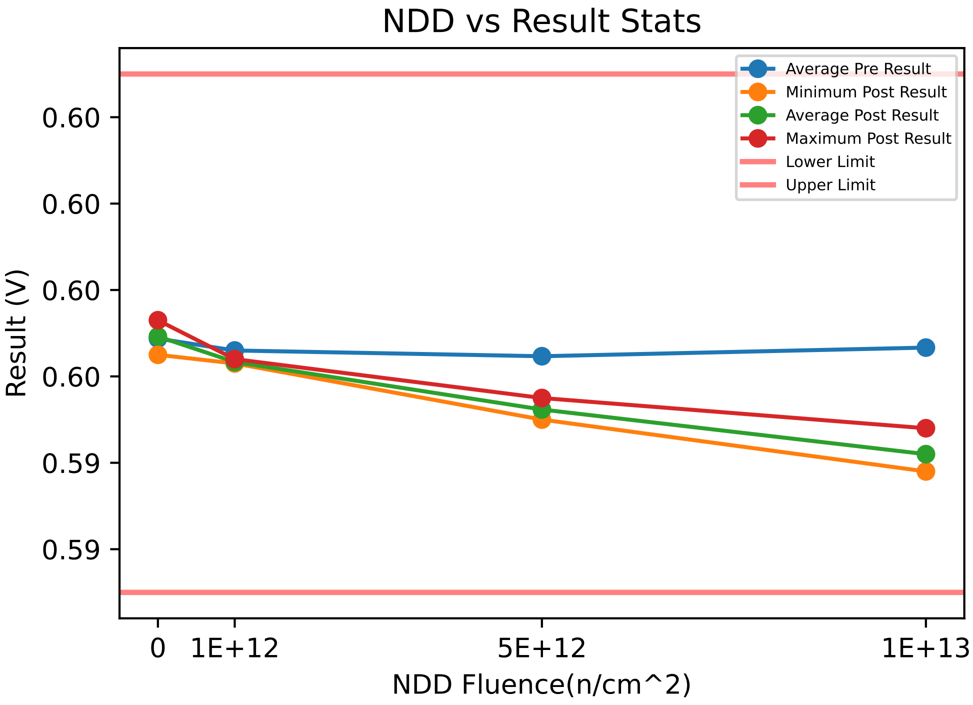
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

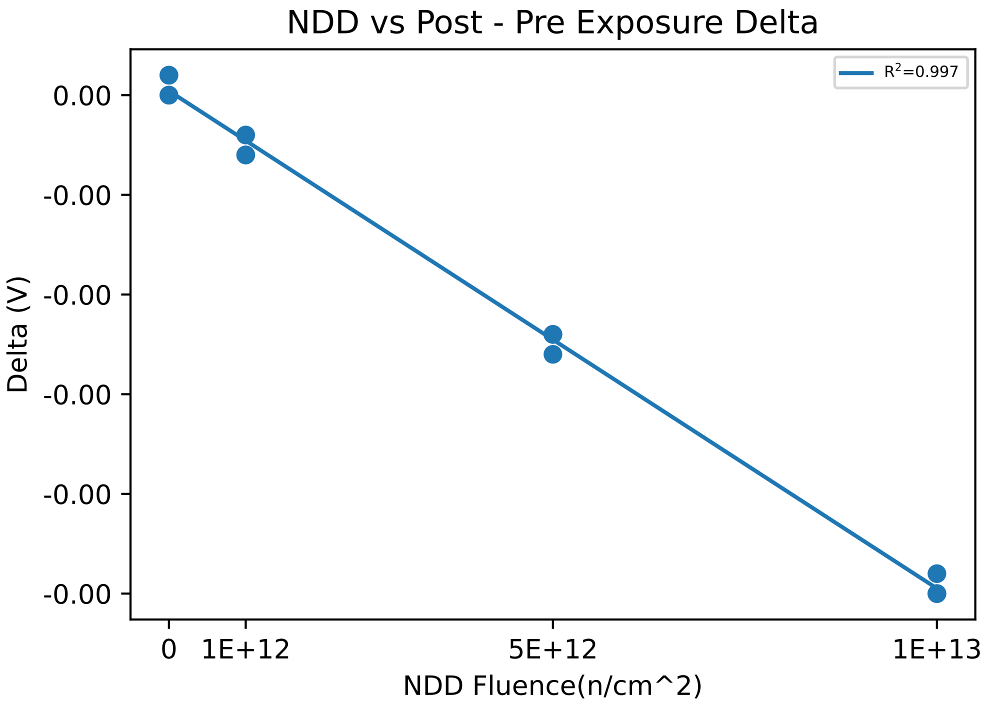
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5961	0.5959	-0.0002
65	1e+12	NDD unbiased	0.5961	0.5958	-0.0003
66	1e+12	NDD unbiased	0.5961	0.5959	-0.0002
67	1e+13	NDD unbiased	0.5968	0.5944	-0.0024
68	1e+13	NDD unbiased	0.596	0.5936	-0.0024
70	1e+13	NDD unbiased	0.5958	0.5934	-0.0024
71	5e+12	NDD unbiased	0.596	0.5948	-0.0012
72	5e+12	NDD unbiased	0.5963	0.5951	-0.0012
73	5e+12	NDD unbiased	0.5957	0.5945	-0.0012
187	0	Correlation	0.596	0.596	0
188	0	Correlation	0.5962	0.5962	0
189	0	Correlation	0.5968	0.5968	0
190	0	Correlation	0.5968	0.5968	0

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	0.596	0.59645	0.5968	0.00041231	0.596	0.59645	0.5968	0.00041231	0	0	0	0
1e+12	0.5961	0.5961	0.5961	0	0.5958	0.59587	0.5959	5.7735e-05	-0.0003	-0.00023333	-0.0002	5.7735e-05
5e+12	0.5957	0.596	0.5963	0.0003	0.5945	0.5948	0.5951	0.0003	-0.0012	-0.0012	-0.0012	6.4114e-17
1e+13	0.5958	0.5962	0.5968	0.00052915	0.5934	0.5938	0.5944	0.00052915	-0.0024	-0.0024	-0.0024	0

Device Test: 15.49 VFB_25C(FB|VFB/FB/7/0.6//10//@VFB_25C)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

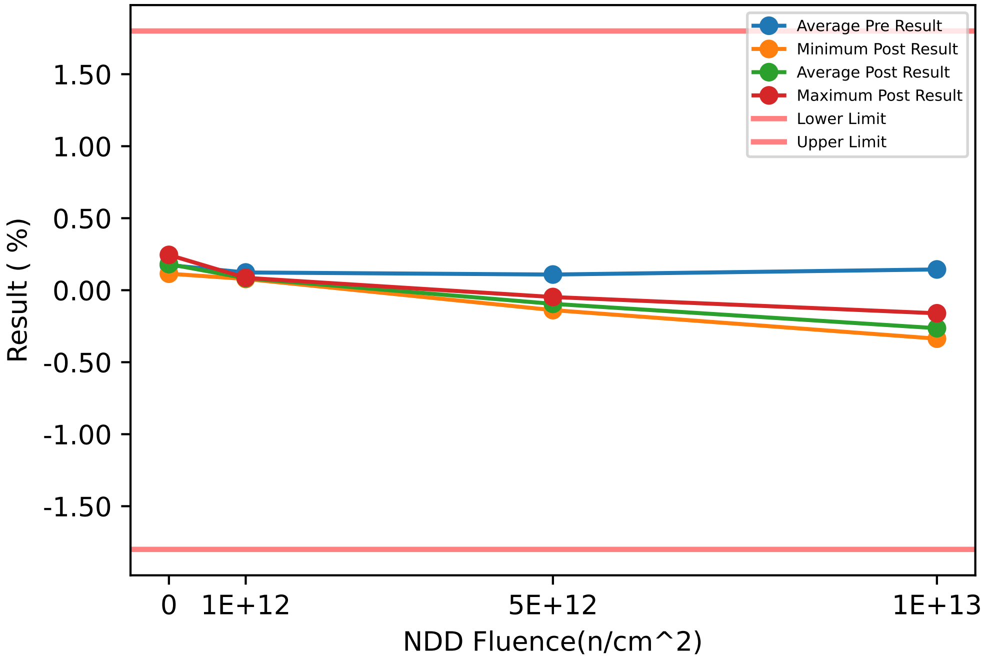
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

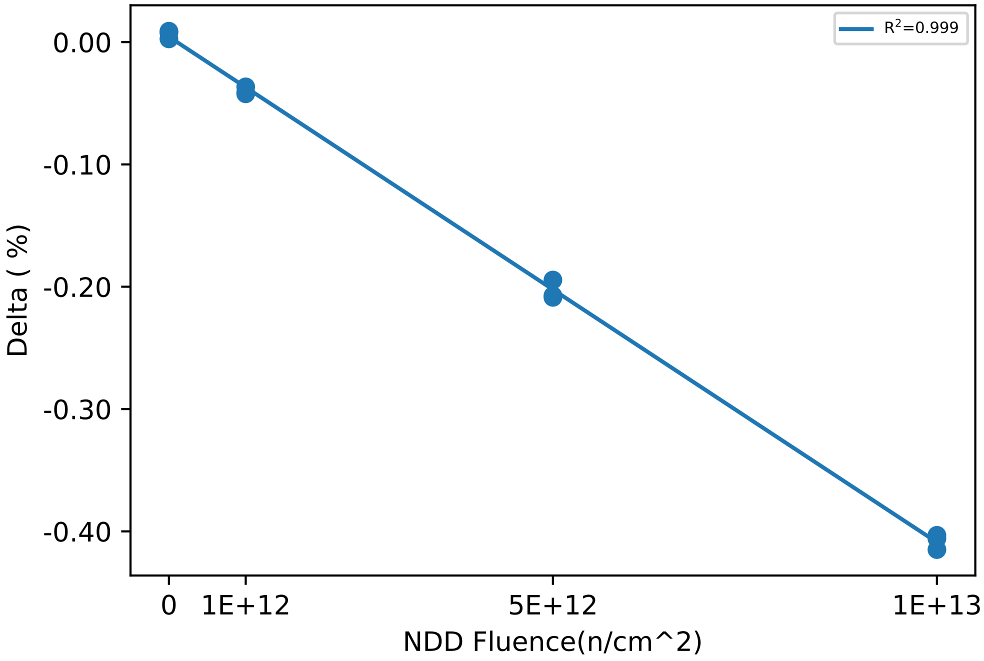
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
65	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
66	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
67	1e+13	NDD unbiased	0.5973	0.5948	-0.0025
68	1e+13	NDD unbiased	0.5964	0.594	-0.0024
70	1e+13	NDD unbiased	0.5963	0.5938	-0.0025
71	5e+12	NDD unbiased	0.5965	0.5952	-0.0013
72	5e+12	NDD unbiased	0.5967	0.5955	-0.0012
73	5e+12	NDD unbiased	0.5962	0.595	-0.0012
187	0	Correlation	0.5965	0.5965	0
188	0	Correlation	0.5966	0.5966	0
189	0	Correlation	0.5972	0.5973	0.0001
190	0	Correlation	0.5972	0.5973	0.0001

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	0.5965	0.59688	0.5972	0.00037749	0.5965	0.59693	0.5973	0.00043493	0	5e-05	0.0001	5.7735e-05
1e+12	0.5966	0.5966	0.5966	0	0.5963	0.59633	0.5964	5.7735e-05	-0.0003	-0.00026667	-0.0002	5.7735e-05
5e+12	0.5962	0.59647	0.5967	0.00025166	0.595	0.59523	0.5955	0.00025166	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5963	0.59667	0.5973	0.00055076	0.5938	0.5942	0.5948	0.00052915	-0.0025	-0.0024667	-0.0024	5.7735e-05

Device Test: 15.5 OUT_ACC_VIN_SUB_3V(VIN|ACCURACY/OUT/2.25/0.6//10//@OUT_ACC_VIN_SUB_3V)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

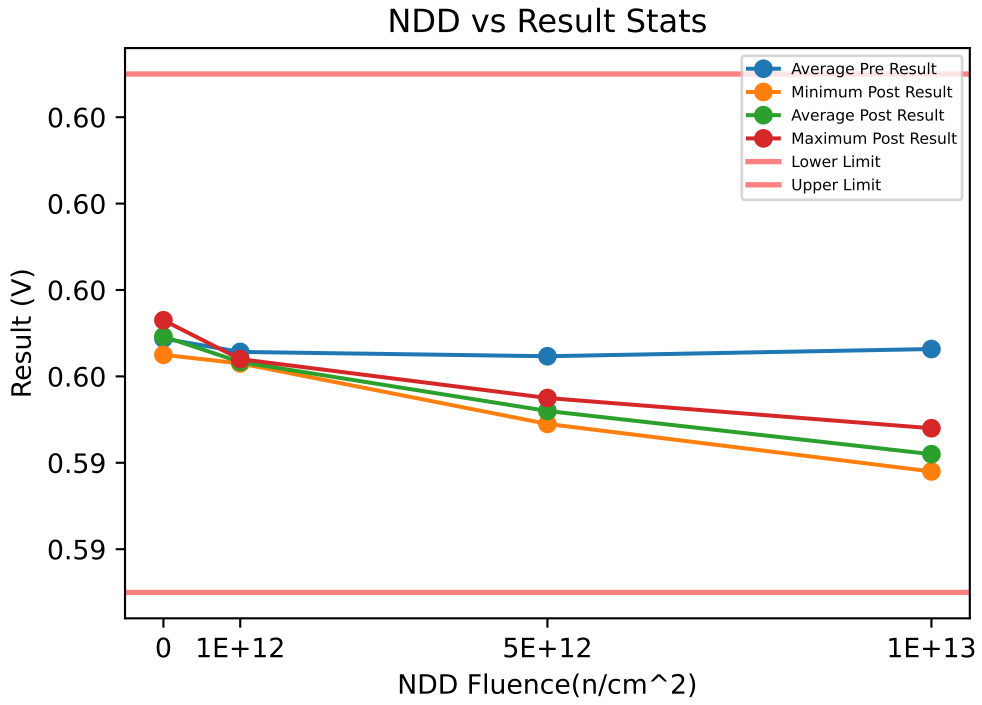
Test Results (Lower Limit = -1.8, Upper Limit = 1.8 (%))

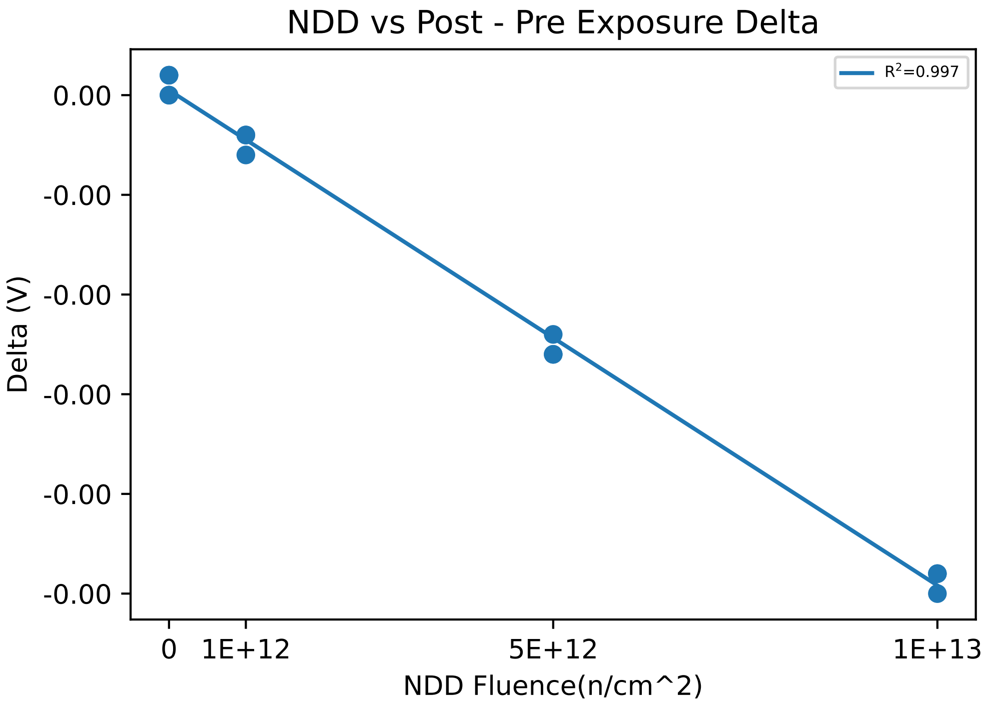
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.1228	0.0862	-0.0366
65	1e+12	NDD unbiased	0.1203	0.078	-0.0423
66	1e+12	NDD unbiased	0.1264	0.0852	-0.0412
67	1e+13	NDD unbiased	0.2545	-0.1604	-0.4149
68	1e+13	NDD unbiased	0.1085	-0.2947	-0.4032
70	1e+13	NDD unbiased	0.0693	-0.3366	-0.4059
71	5e+12	NDD unbiased	0.1103	-0.0984	-0.2087
72	5e+12	NDD unbiased	0.1471	-0.0474	-0.1945
73	5e+12	NDD unbiased	0.069	-0.1383	-0.2073
187	0	Correlation	0.1057	0.1146	0.0089
188	0	Correlation	0.121	0.1236	0.0026
189	0	Correlation	0.2335	0.2417	0.0082
190	0	Correlation	0.2373	0.2451	0.0078

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	0.1057	0.17438	0.2373	0.070759	0.1146	0.18125	0.2451	0.071872	0.0026	0.006875	0.0089	0.002886
1e+12	0.1203	0.12317	0.1264	0.0030665	0.078	0.083133	0.0862	0.0044736	-0.0423	-0.040033	-0.0366	0.0030238
5e+12	0.069	0.1088	0.1471	0.039072	-0.1383	-0.0947	-0.0474	0.045563	-0.2087	-0.2035	-0.1945	0.0078256
1e+13	0.0693	0.1441	0.2545	0.097598	-0.3366	-0.2639	-0.1604	0.092049	-0.4149	-0.408	-0.4032	0.0061262

Device Test: 15.53 VFB_25C(FB|VFB/FB/12/0.6//10//@VFB_25C)





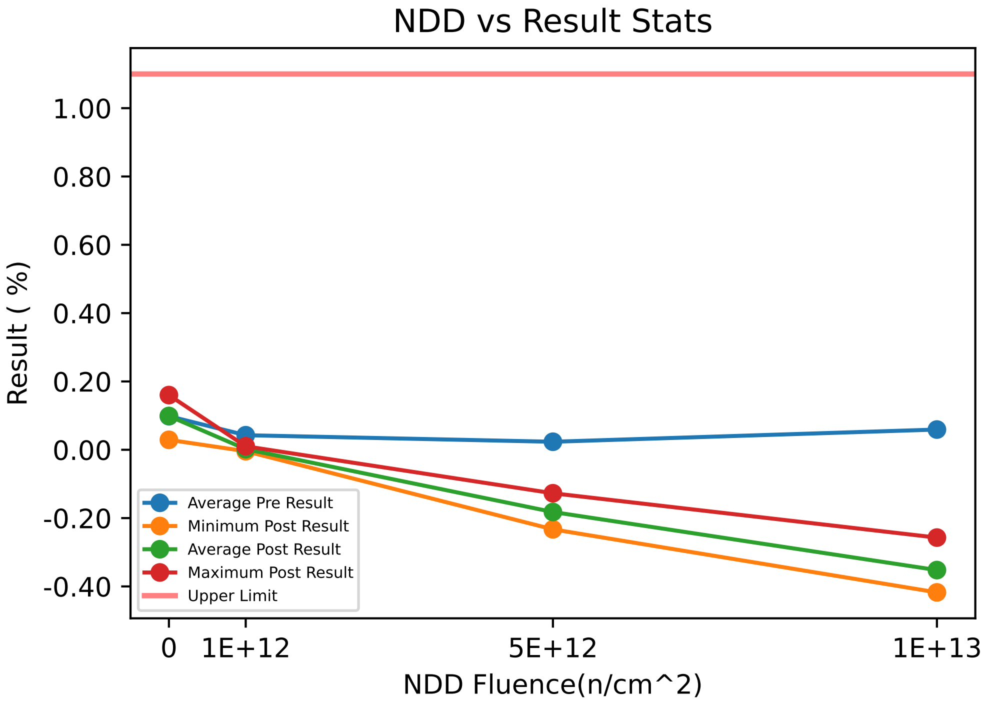
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

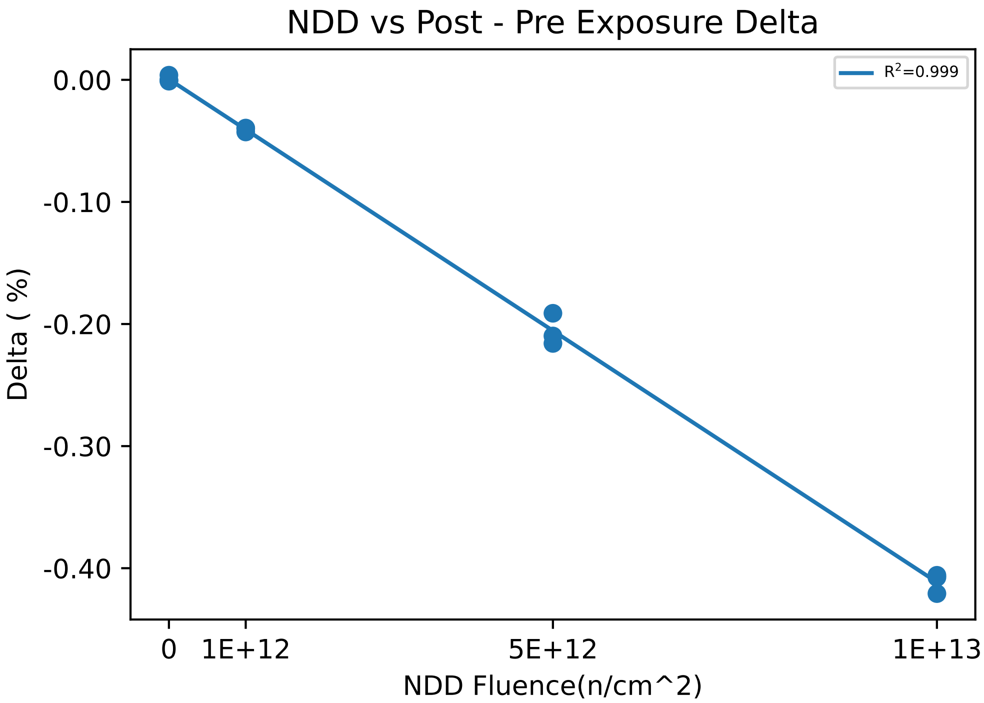
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
65	1e+12	NDD unbiased	0.5965	0.5963	-0.0002
66	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
67	1e+13	NDD unbiased	0.5973	0.5948	-0.0025
68	1e+13	NDD unbiased	0.5964	0.594	-0.0024
70	1e+13	NDD unbiased	0.5962	0.5938	-0.0024
71	5e+12	NDD unbiased	0.5965	0.5952	-0.0013
72	5e+12	NDD unbiased	0.5967	0.5955	-0.0012
73	5e+12	NDD unbiased	0.5962	0.5949	-0.0013
187	0	Correlation	0.5965	0.5965	0
188	0	Correlation	0.5966	0.5966	0
189	0	Correlation	0.5972	0.5973	0.0001
190	0	Correlation	0.5972	0.5973	0.0001

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	0.5965	0.59688	0.5972	0.00037749	0.5965	0.59693	0.5973	0.00043493	0	5e-05	0.0001	5.7735e-05
1e+12	0.5965	0.59657	0.5966	5.7735e-05	0.5963	0.59633	0.5964	5.7735e-05	-0.0003	-0.00023333	-0.0002	5.7735e-05
5e+12	0.5962	0.59647	0.5967	0.00025166	0.5949	0.5952	0.5955	0.0003	-0.0013	-0.0012667	-0.0012	5.7735e-05
1e+13	0.5962	0.59663	0.5973	0.00058595	0.5938	0.5942	0.5948	0.00052915	-0.0025	-0.0024333	-0.0024	5.7735e-05

Device Test: 15.57 OUT_ACC_25C(VIN|ACCURACY/OUT/12/5//429//@OUT_ACC_25C)





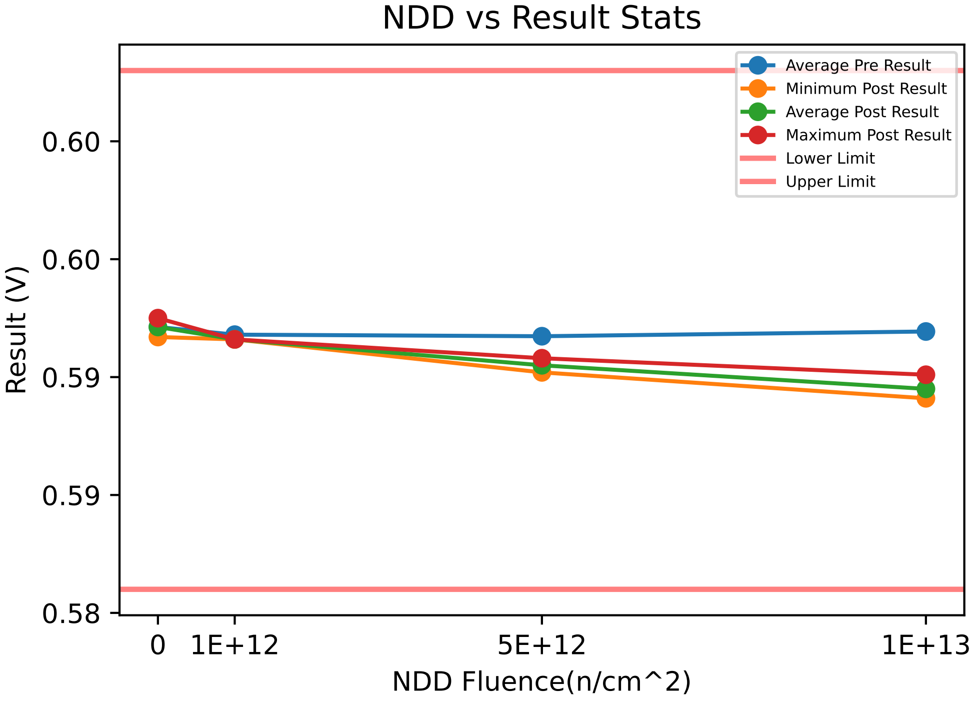
Test Results (Upper Limit = 1.1 (%))

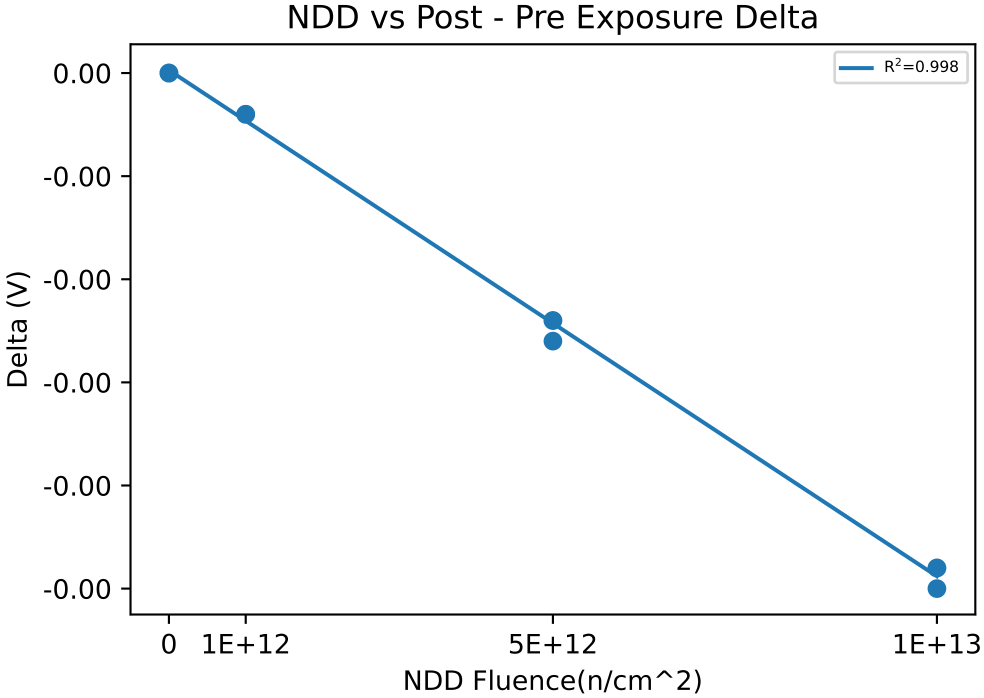
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.0497	0.0102	-0.0395
65	1e+12	NDD unbiased	0.0357	-0.0042	-0.0399
66	1e+12	NDD unbiased	0.0424	-0.0003	-0.0427
67	1e+13	NDD unbiased	0.1637	-0.2571	-0.4208
68	1e+13	NDD unbiased	0.0256	-0.3819	-0.4075
70	1e+13	NDD unbiased	-0.0117	-0.4175	-0.4058
71	5e+12	NDD unbiased	0.0296	-0.1863	-0.2159
72	5e+12	NDD unbiased	0.0639	-0.1273	-0.1912
73	5e+12	NDD unbiased	-0.0231	-0.2329	-0.2098
187	0	Correlation	0.0296	0.0291	-0.0005
188	0	Correlation	0.055	0.055	0
189	0	Correlation	0.1563	0.1601	0.0038
190	0	Correlation	0.1524	0.1513	-0.0011

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	0.0296	0.098325	0.1563	0.065537	0.0291	0.098875	0.1601	0.066559	-0.0011	0.00055	0.0038	0.0022128
1e+12	0.0357	0.0426	0.0497	0.0070021	-0.0042	0.0019	0.0102	0.0074478	-0.0427	-0.0407	-0.0395	0.0017436
5e+12	-0.0231	0.023467	0.0639	0.043823	-0.2329	-0.18217	-0.1273	0.052921	-0.2159	-0.20563	-0.1912	0.012866
1e+13	-0.0117	0.0592	0.1637	0.092401	-0.4175	-0.35217	-0.2571	0.084232	-0.4208	-0.41137	-0.4058	0.0082136

Device Test: 15.6 VFB_VIN_SUB_3V(FB|VFB/FB/2.25/0.6//10//@VFB_VIN_SUB_3V)





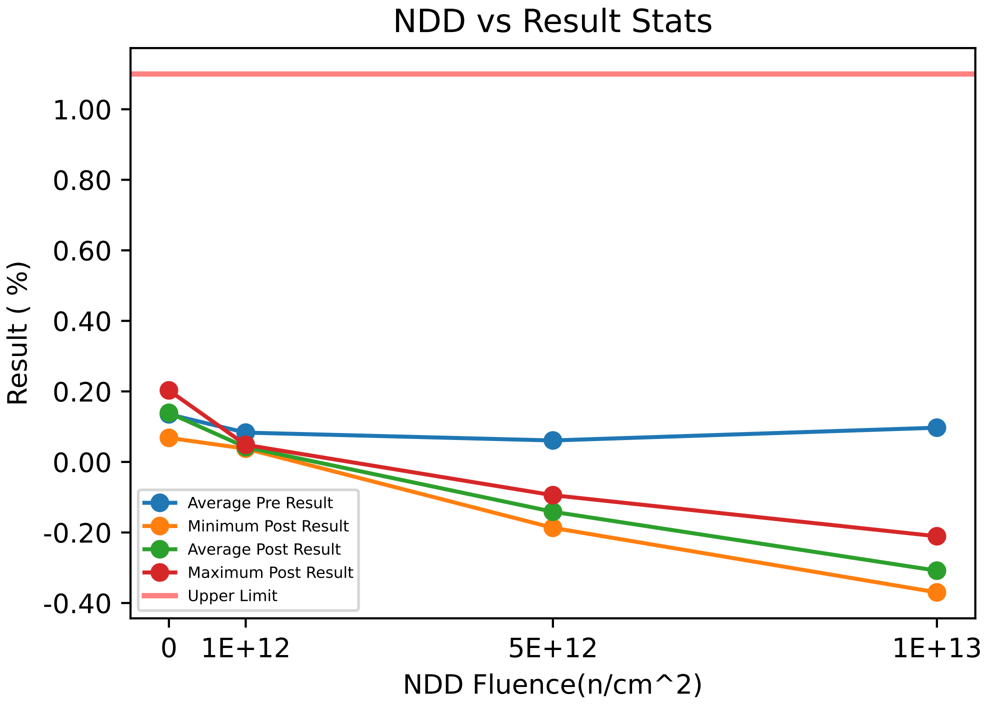
Test Results (Lower Limit = 0.586, Upper Limit = 0.608 (V))

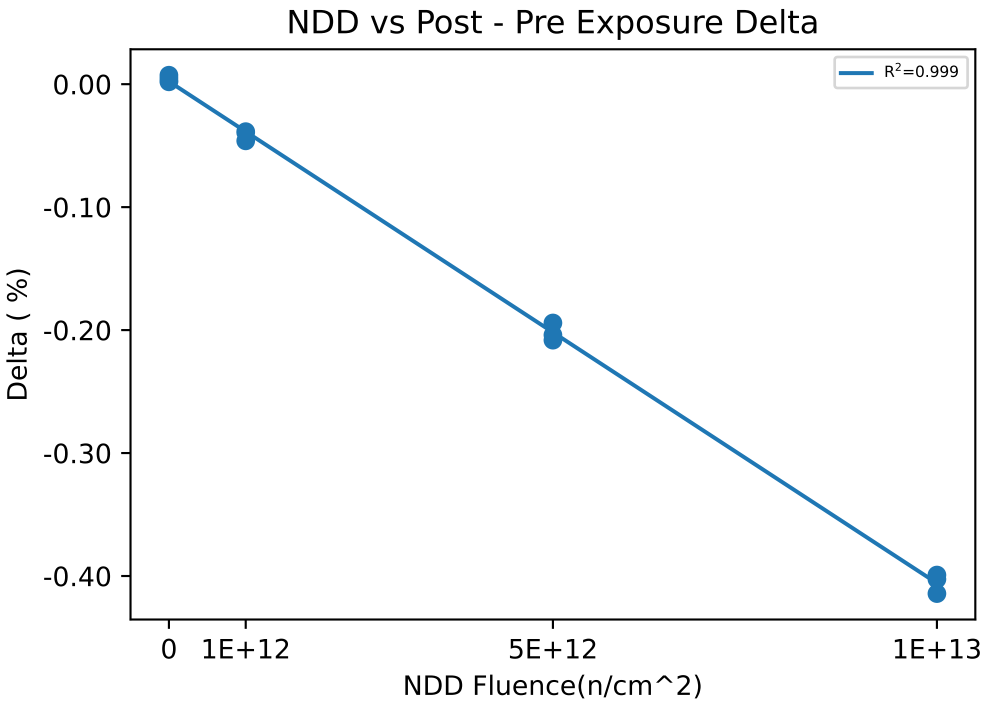
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5968	0.5966	-0.0002
65	1e+12	NDD unbiased	0.5968	0.5966	-0.0002
66	1e+12	NDD unbiased	0.5968	0.5966	-0.0002
67	1e+13	NDD unbiased	0.5976	0.5951	-0.0025
68	1e+13	NDD unbiased	0.5967	0.5943	-0.0024
70	1e+13	NDD unbiased	0.5965	0.5941	-0.0024
71	5e+12	NDD unbiased	0.5967	0.5955	-0.0012
72	5e+12	NDD unbiased	0.597	0.5958	-0.0012
73	5e+12	NDD unbiased	0.5965	0.5952	-0.0013
187	0	Correlation	0.5967	0.5967	0
188	0	Correlation	0.5968	0.5968	0
189	0	Correlation	0.5975	0.5975	0
190	0	Correlation	0.5975	0.5975	0

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	0.5967	0.59713	0.5975	0.00043493	0.5967	0.59713	0.5975	0.00043493	0	0	0	0
1e+12	0.5968	0.5968	0.5968	0	0.5966	0.5966	0.5966	0	-0.0002	-0.0002	-0.0002	0
5e+12	0.5965	0.59673	0.597	0.00025166	0.5952	0.5955	0.5958	0.0003	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5965	0.59693	0.5976	0.00058595	0.5941	0.5945	0.5951	0.00052915	-0.0025	-0.0024333	-0.0024	5.7735e-05

Device Test: 15.62 OUT_ACC_25C(VIN|ACCURACY/OUT/14/0.6//10//@OUT_ACC_25C)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

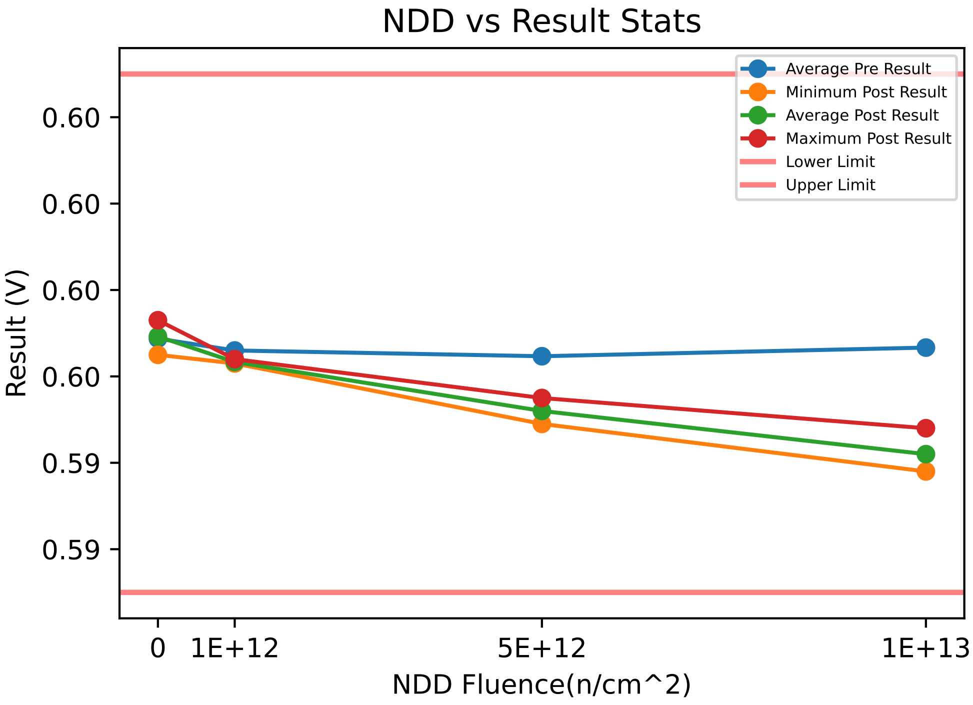
Test Results (Upper Limit = 1.1 (%))

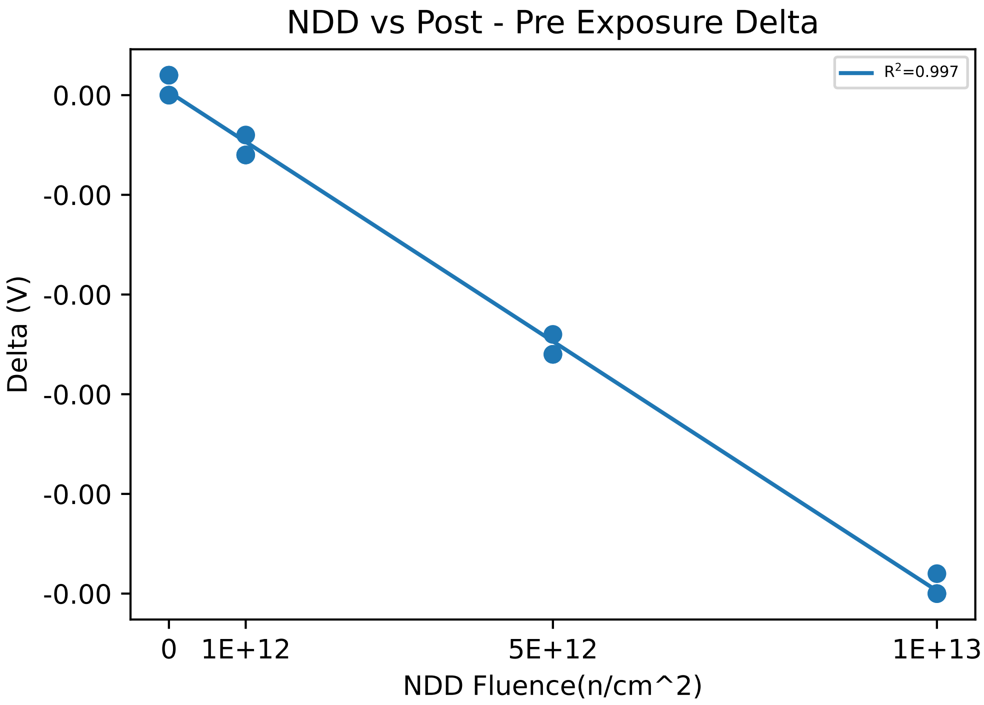
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.0871	0.0485	-0.0386
65	1e+12	NDD unbiased	0.0787	0.0394	-0.0393
66	1e+12	NDD unbiased	0.0837	0.0376	-0.0461
67	1e+13	NDD unbiased	0.2036	-0.2107	-0.4143
68	1e+13	NDD unbiased	0.0584	-0.3442	-0.4026
70	1e+13	NDD unbiased	0.0293	-0.3699	-0.3992
71	5e+12	NDD unbiased	0.0656	-0.1426	-0.2082
72	5e+12	NDD unbiased	0.0999	-0.0943	-0.1942
73	5e+12	NDD unbiased	0.0172	-0.1868	-0.204
187	0	Correlation	0.0633	0.0683	0.005
188	0	Correlation	0.0874	0.0901	0.0027
189	0	Correlation	0.1956	0.2029	0.0073
190	0	Correlation	0.1938	0.1957	0.0019

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	0.0633	0.13503	0.1956	0.06961	0.0683	0.13925	0.2029	0.06997	0.0019	0.004225	0.0073	0.002435
1e+12	0.0787	0.083167	0.0871	0.0042253	0.0376	0.041833	0.0485	0.0058432	-0.0461	-0.041333	-0.0386	0.0041429
5e+12	0.0172	0.0609	0.0999	0.04155	-0.1868	-0.14123	-0.0943	0.046265	-0.2082	-0.20213	-0.1942	0.0071842
1e+13	0.0293	0.0971	0.2036	0.093372	-0.3699	-0.30827	-0.2107	0.085467	-0.4143	-0.40537	-0.3992	0.0079211

Device Test: 15.63 VFB_25C(FB|VFB/FB/14/0.6//10//@VFB_25C)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

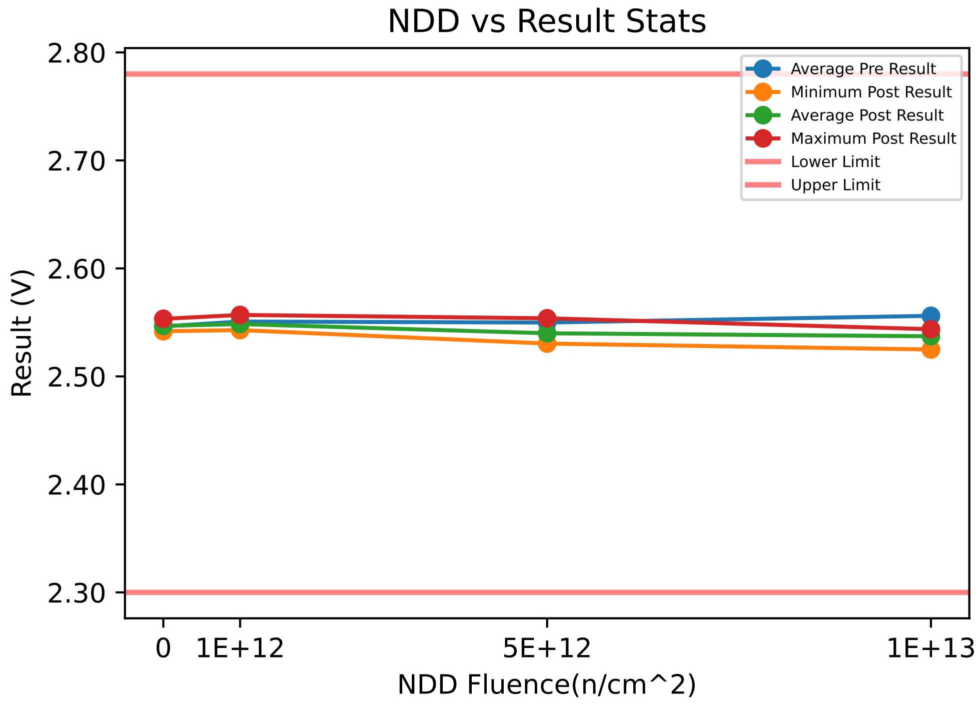
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

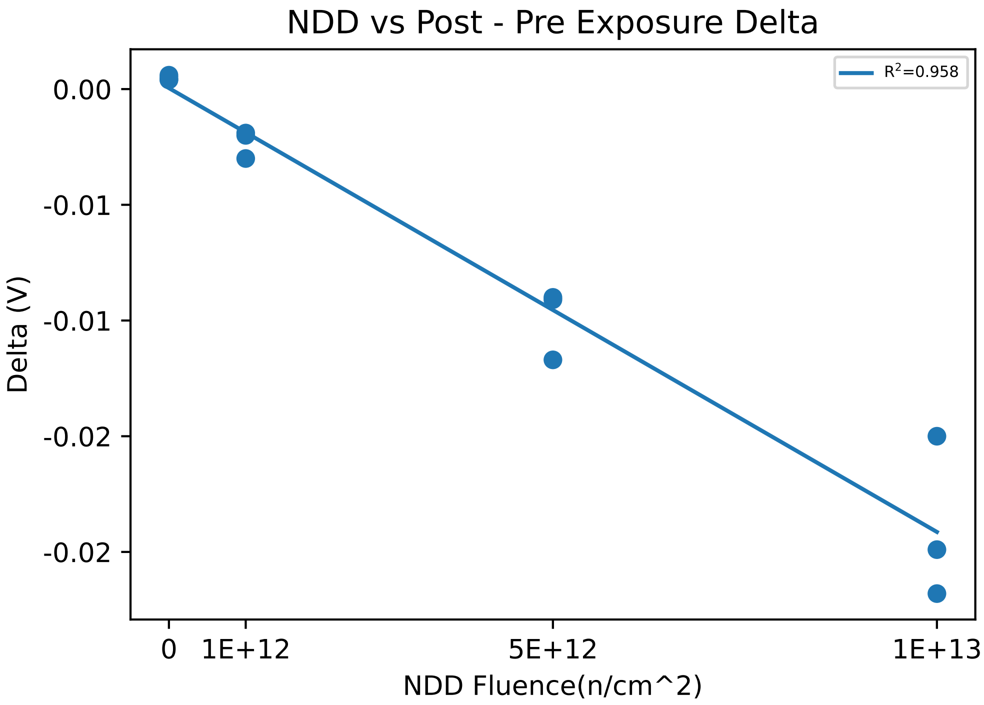
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
65	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
66	1e+12	NDD unbiased	0.5966	0.5963	-0.0003
67	1e+13	NDD unbiased	0.5973	0.5948	-0.0025
68	1e+13	NDD unbiased	0.5964	0.594	-0.0024
70	1e+13	NDD unbiased	0.5963	0.5938	-0.0025
71	5e+12	NDD unbiased	0.5965	0.5952	-0.0013
72	5e+12	NDD unbiased	0.5967	0.5955	-0.0012
73	5e+12	NDD unbiased	0.5962	0.5949	-0.0013
187	0	Correlation	0.5965	0.5965	0
188	0	Correlation	0.5966	0.5966	0
189	0	Correlation	0.5972	0.5973	0.0001
190	0	Correlation	0.5972	0.5973	0.0001

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	0.5965	0.59688	0.5972	0.00037749	0.5965	0.59693	0.5973	0.00043493	0	5e-05	0.0001	5.7735e-05
1e+12	0.5966	0.5966	0.5966	0	0.5963	0.59633	0.5964	5.7735e-05	-0.0003	-0.00026667	-0.0002	5.7735e-05
5e+12	0.5962	0.59647	0.5967	0.00025166	0.5949	0.5952	0.5955	0.0003	-0.0013	-0.0012667	-0.0012	5.7735e-05
1e+13	0.5963	0.59667	0.5973	0.00055076	0.5938	0.5942	0.5948	0.00052915	-0.0025	-0.0024667	-0.0024	5.7735e-05

Device Test: 15.64 V_VLDO(OUTPUT|VLDO/VLDO/14/0.6//10//@V_VLDO)





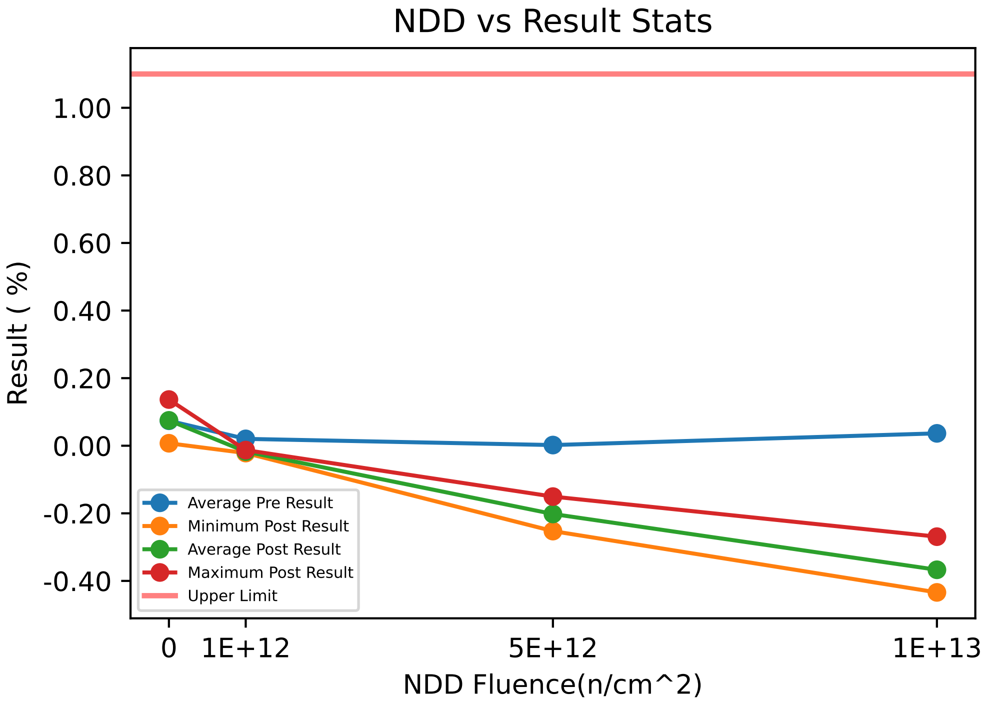
Test Results (Lower Limit = 2.3, Upper Limit = 2.78 (V))

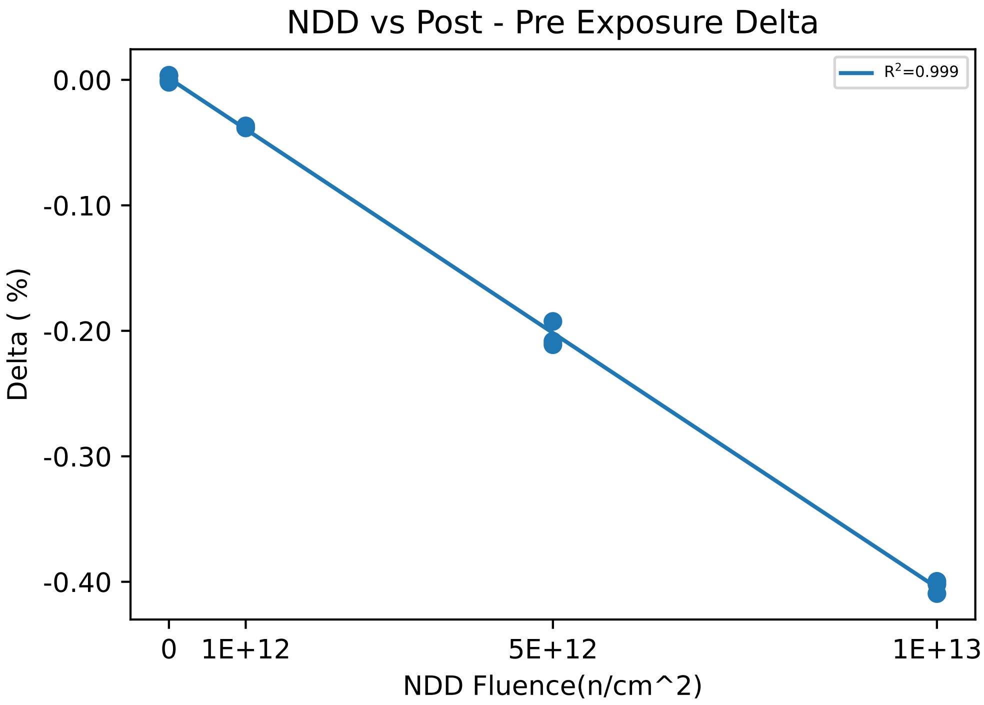
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	2.5476	2.5456	-0.002
65	1e+12	NDD unbiased	2.5588	2.5569	-0.0019
66	1e+12	NDD unbiased	2.5459	2.5429	-0.003
67	1e+13	NDD unbiased	2.5467	2.5249	-0.0218
68	1e+13	NDD unbiased	2.5628	2.5429	-0.0199
70	1e+13	NDD unbiased	2.5587	2.5437	-0.015
71	5e+12	NDD unbiased	2.5447	2.5356	-0.0091
72	5e+12	NDD unbiased	2.5421	2.5304	-0.0117
73	5e+12	NDD unbiased	2.5628	2.5538	-0.009
187	0	Correlation	2.5414	2.5418	0.0004
188	0	Correlation	2.5456	2.5461	0.0005
189	0	Correlation	2.5529	2.5533	0.0004
190	0	Correlation	2.5453	2.5459	0.0006

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	2.5414	2.5463	2.5529	0.0047979	2.5418	2.5468	2.5533	0.0047801	0.0004	0.000475	0.0006	9.5743e-05
1e+12	2.5459	2.5508	2.5588	0.0070088	2.5429	2.5485	2.5569	0.0074272	-0.003	-0.0023	-0.0019	0.00060828
5e+12	2.5421	2.5499	2.5628	0.011276	2.5304	2.5399	2.5538	0.012287	-0.0117	-0.0099333	-0.009	0.0015308
1e+13	2.5467	2.5561	2.5628	0.0083668	2.5249	2.5372	2.5437	0.010631	-0.0218	-0.0189	-0.015	0.0035086

Device Test: 15.68 OUT_ACC_25C(VIN|ACCURACY/OUT/14/0.6//225//@OUT_ACC_25C)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

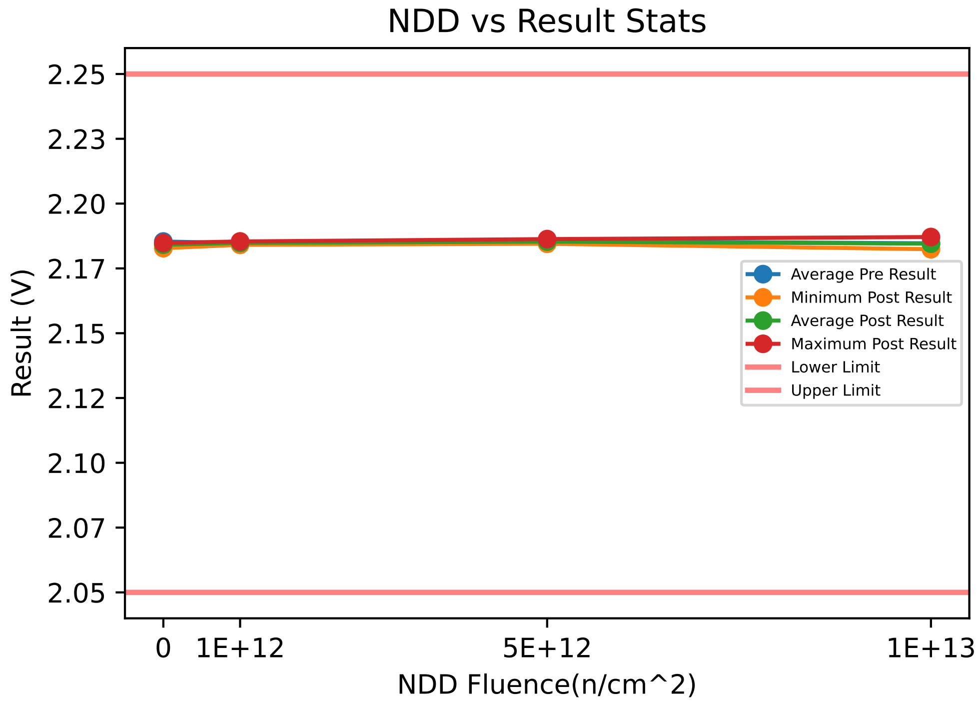
Test Results (Upper Limit = 1.1 (%))

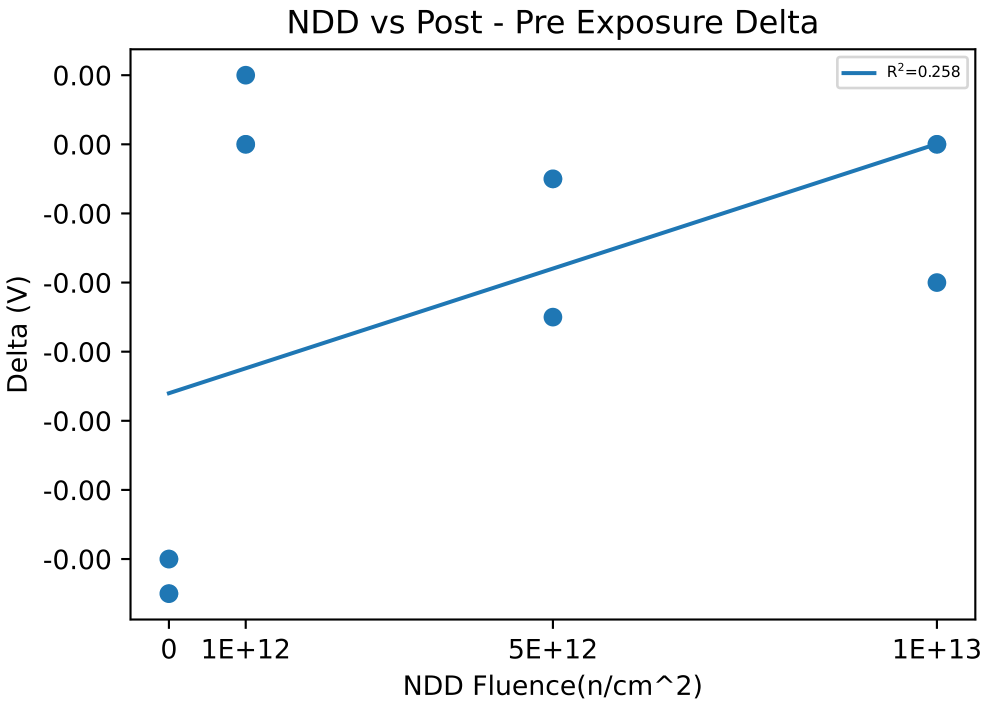
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.0238	-0.0129	-0.0367
65	1e+12	NDD unbiased	0.0165	-0.0217	-0.0382
66	1e+12	NDD unbiased	0.0206	-0.0177	-0.0383
67	1e+13	NDD unbiased	0.1403	-0.2691	-0.4094
68	1e+13	NDD unbiased	0.0015	-0.3981	-0.3996
70	1e+13	NDD unbiased	-0.032	-0.434	-0.402
71	5e+12	NDD unbiased	0.0083	-0.2028	-0.2111
72	5e+12	NDD unbiased	0.042	-0.1505	-0.1925
73	5e+12	NDD unbiased	-0.0443	-0.2526	-0.2083
187	0	Correlation	0.0042	0.0073	0.0031
188	0	Correlation	0.0307	0.0287	-0.002
189	0	Correlation	0.133	0.1367	0.0037
190	0	Correlation	0.1278	0.1275	-0.0003

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	0.0042	0.073925	0.133	0.066137	0.0073	0.07505	0.1367	0.066559	-0.002	0.001125	0.0037	0.0027281
1e+12	0.0165	0.0203	0.0238	0.0036592	-0.0217	-0.017433	-0.0129	0.0044061	-0.0383	-0.037733	-0.0367	0.00089629
5e+12	-0.0443	0.002	0.042	0.043494	-0.2526	-0.20197	-0.1505	0.051055	-0.2111	-0.20397	-0.1925	0.010029
1e+13	-0.032	0.0366	0.1403	0.091356	-0.434	-0.36707	-0.2691	0.08672	-0.4094	-0.40367	-0.3996	0.0051082

Device Test: 15.7 V_VLDO_VIN_2p25(OUTPUT|VLDO/VLDO/2.25/0.6//10//@V_VLDO_VIN_2p25)





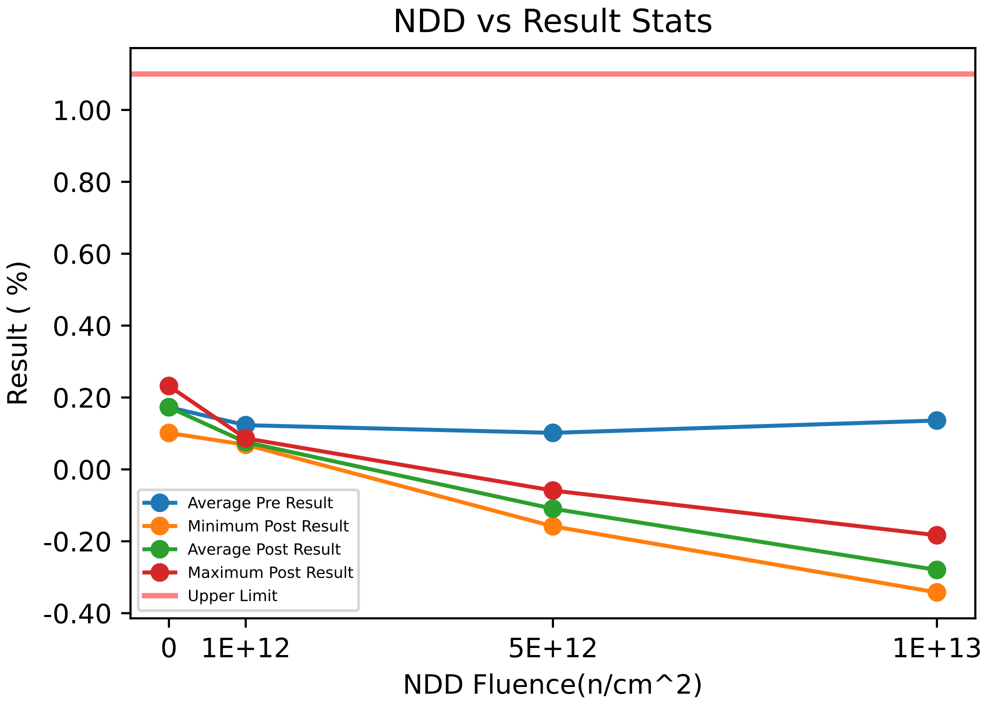
Test Results (Lower Limit = 2.05, Upper Limit = 2.25 (V))

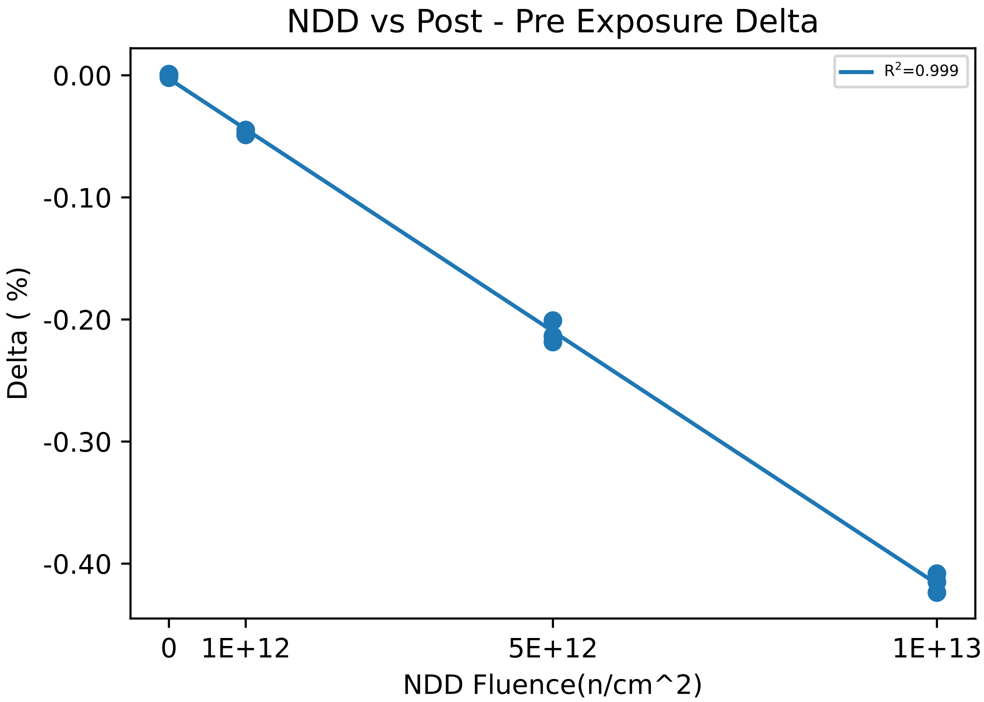
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	2.1841	2.1841	0
65	1e+12	NDD unbiased	2.1852	2.1854	0.0002
66	1e+12	NDD unbiased	2.185	2.185	0
67	1e+13	NDD unbiased	2.1871	2.1871	0
68	1e+13	NDD unbiased	2.1845	2.1841	-0.0004
70	1e+13	NDD unbiased	2.1824	2.1824	0
71	5e+12	NDD unbiased	2.1846	2.1845	-0.0001
72	5e+12	NDD unbiased	2.1853	2.1852	-0.0001
73	5e+12	NDD unbiased	2.1868	2.1863	-0.0005
187	0	Correlation	2.1861	2.1848	-0.0013
188	0	Correlation	2.1857	2.1845	-0.0012
189	0	Correlation	2.1856	2.1844	-0.0012
190	0	Correlation	2.1841	2.1828	-0.0013

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	2.1841	2.1854	2.1861	0.00087702	2.1828	2.1841	2.1848	0.00089954	-0.0013	-0.00125	-0.0012	5.7735e-05
1e+12	2.1841	2.1848	2.1852	0.00058595	2.1841	2.1848	2.1854	0.00066583	0	6.6667e-05	0.0002	0.00011547
5e+12	2.1846	2.1856	2.1868	0.001124	2.1845	2.1853	2.1863	0.00090738	-0.0005	-0.00023333	-0.0001	0.00023094
1e+13	2.1824	2.1847	2.1871	0.0023544	2.1824	2.1845	2.1871	0.0023798	-0.0004	-0.00013333	0	0.00023094

Device Test: 15.73 OUT_ACC_25C(VIN|ACCURACY/OUT/14/13.9//10//@OUT_ACC_25C)





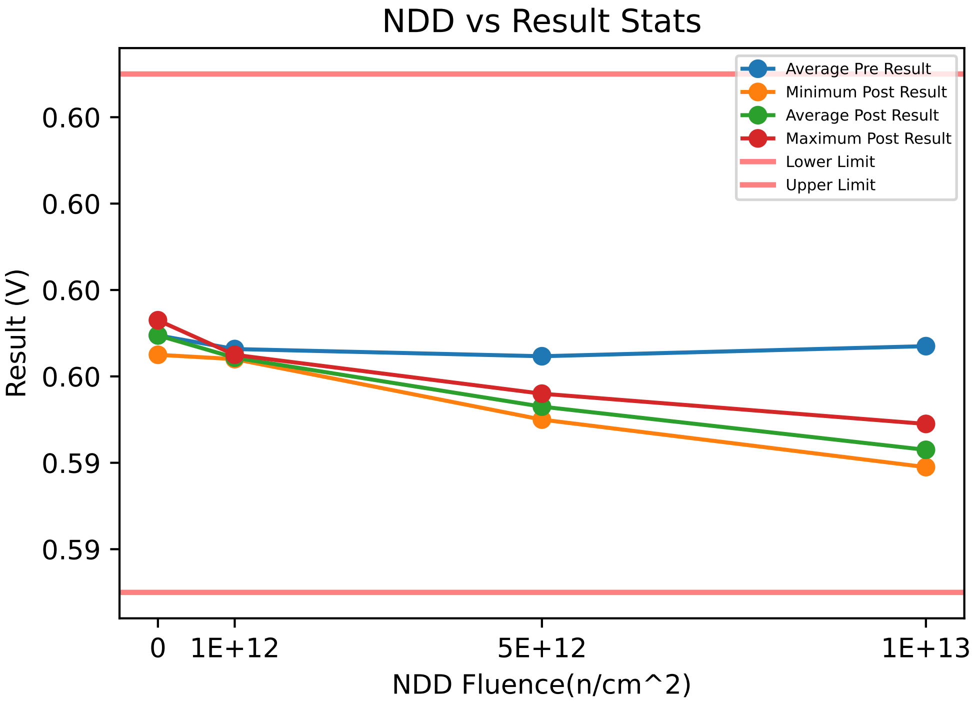
Test Results (Upper Limit = 1.1 (%))

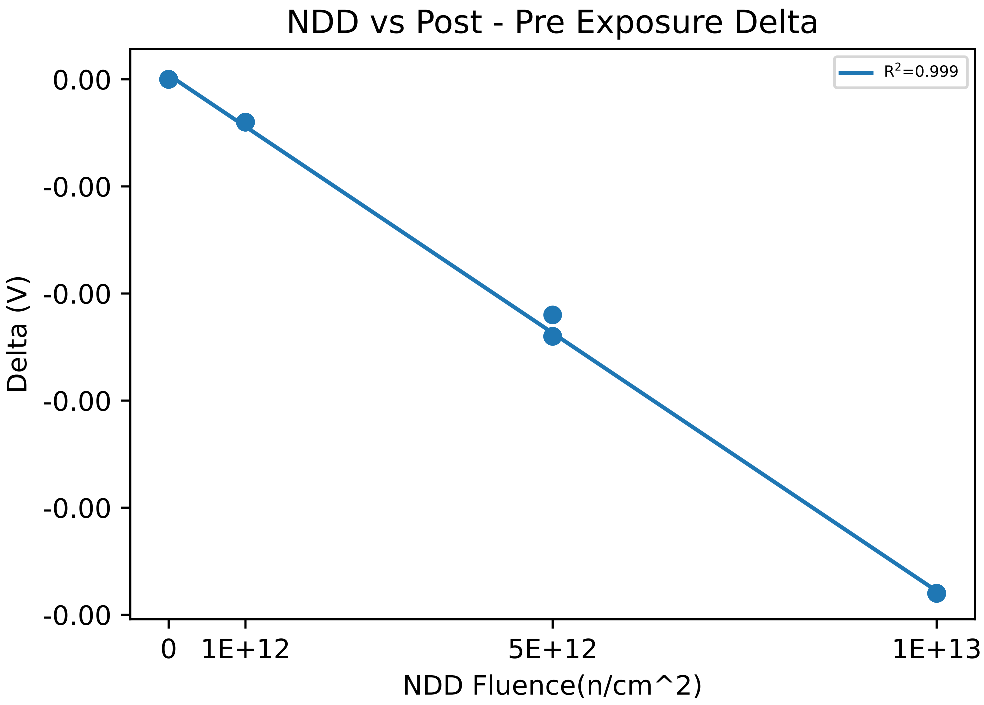
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.1312	0.0864	-0.0448
65	1e+12	NDD unbiased	0.1173	0.0686	-0.0487
66	1e+12	NDD unbiased	0.1206	0.0718	-0.0488
67	1e+13	NDD unbiased	0.2404	-0.1833	-0.4237
68	1e+13	NDD unbiased	0.1014	-0.3136	-0.415
70	1e+13	NDD unbiased	0.066	-0.3422	-0.4082
71	5e+12	NDD unbiased	0.1076	-0.1109	-0.2185
72	5e+12	NDD unbiased	0.1421	-0.0588	-0.2009
73	5e+12	NDD unbiased	0.0553	-0.1583	-0.2136
187	0	Correlation	0.1005	0.1014	0.0009
188	0	Correlation	0.1306	0.1286	-0.002
189	0	Correlation	0.2312	0.2321	0.0009
190	0	Correlation	0.2296	0.2295	-0.0001

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	0.1005	0.17297	0.2312	0.067441	0.1014	0.1729	0.2321	0.067781	-0.002	-7.5e-05	0.0009	0.0013672
1e+12	0.1173	0.12303	0.1312	0.0072625	0.0686	0.0756	0.0864	0.0094889	-0.0488	-0.047433	-0.0448	0.0022811
5e+12	0.0553	0.10167	0.1421	0.043703	-0.1583	-0.10933	-0.0588	0.049768	-0.2185	-0.211	-0.2009	0.0090835
1e+13	0.066	0.13593	0.2404	0.092186	-0.3422	-0.2797	-0.1833	0.084701	-0.4237	-0.41563	-0.4082	0.0077694

Device Test: 15.74 VFB_25C(FB|VFB/FB/14/13.9//10//@VFB_25C)





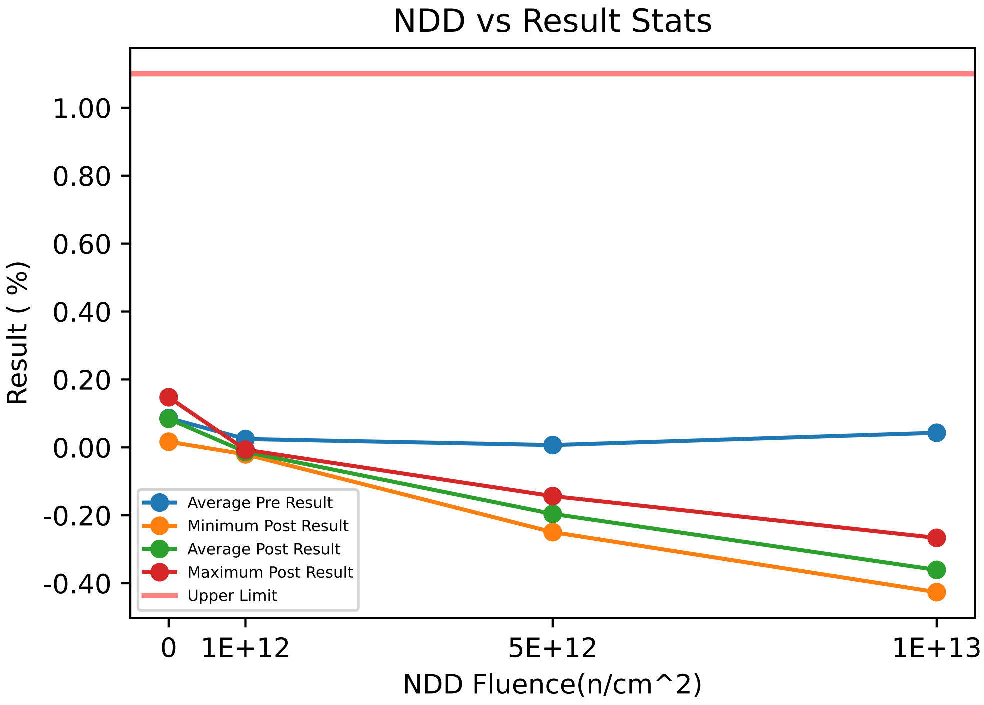
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

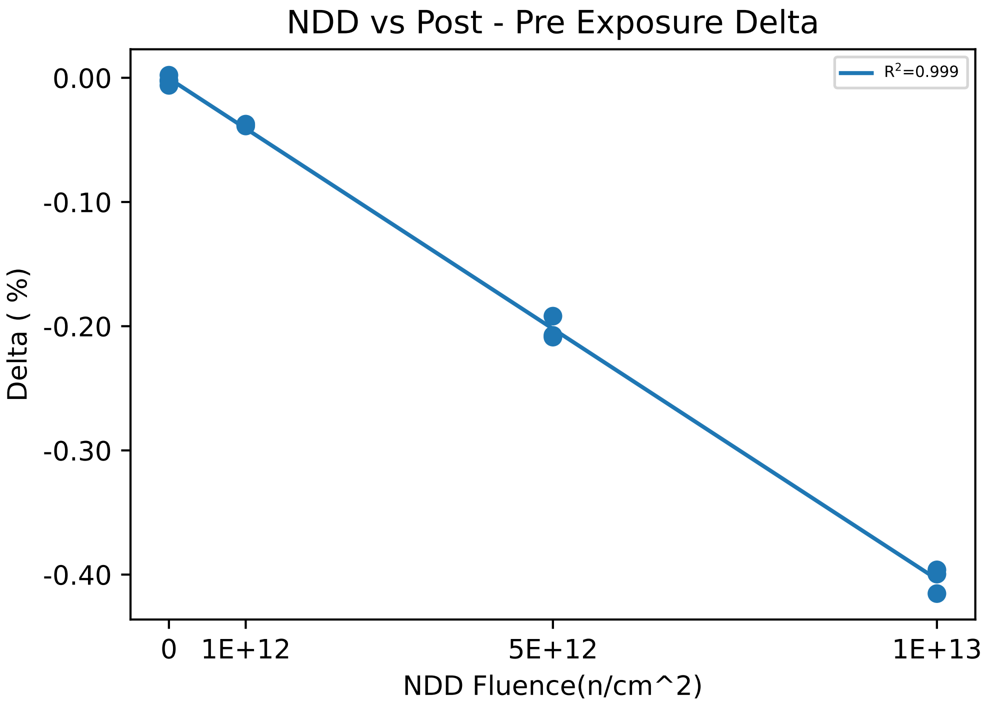
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5967	0.5965	-0.0002
65	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
66	1e+12	NDD unbiased	0.5966	0.5964	-0.0002
67	1e+13	NDD unbiased	0.5973	0.5949	-0.0024
68	1e+13	NDD unbiased	0.5965	0.5941	-0.0024
70	1e+13	NDD unbiased	0.5963	0.5939	-0.0024
71	5e+12	NDD unbiased	0.5965	0.5953	-0.0012
72	5e+12	NDD unbiased	0.5967	0.5956	-0.0011
73	5e+12	NDD unbiased	0.5962	0.595	-0.0012
187	0	Correlation	0.5965	0.5965	0
188	0	Correlation	0.5967	0.5967	0
189	0	Correlation	0.5973	0.5973	0
190	0	Correlation	0.5973	0.5973	0

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	0.5965	0.59695	0.5973	0.00041231	0.5965	0.59695	0.5973	0.00041231	0	0	0	0
1e+12	0.5966	0.59663	0.5967	5.7735e-05	0.5964	0.59643	0.5965	5.7735e-05	-0.0002	-0.0002	-0.0002	0
5e+12	0.5962	0.59647	0.5967	0.00025166	0.595	0.5953	0.5956	0.0003	-0.0012	-0.0011667	-0.0011	5.7735e-05
1e+13	0.5963	0.5967	0.5973	0.00052915	0.5939	0.5943	0.5949	0.00052915	-0.0024	-0.0024	-0.0024	0

Device Test: 15.78 OUT_ACC_25C(VIN|ACCURACY/OUT/14/13.3//2000//@OUT_ACC_25C)





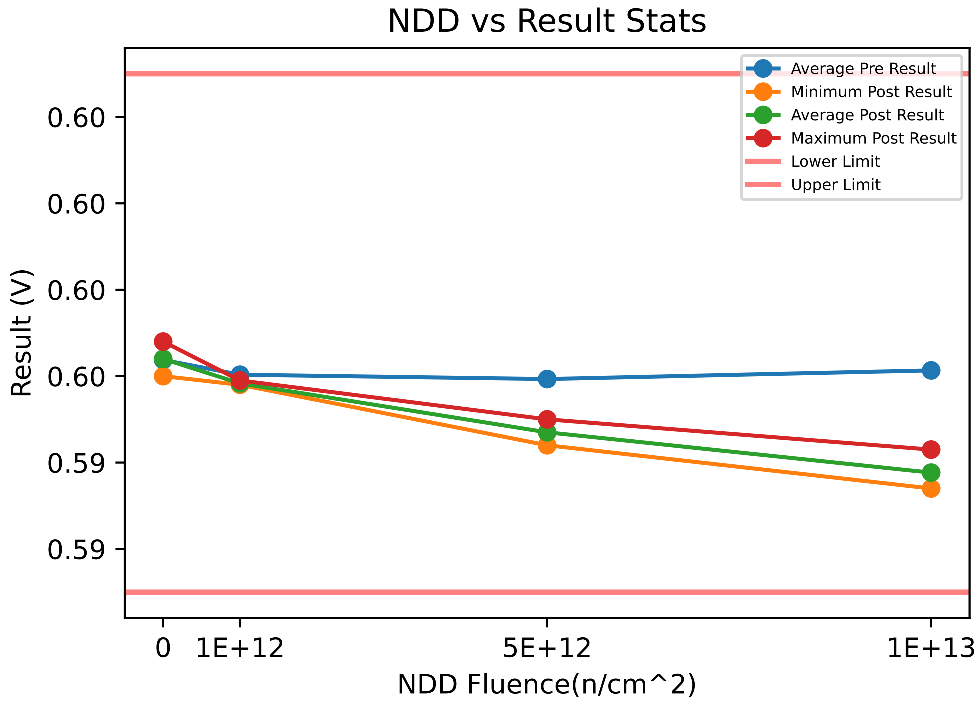
Test Results (Upper Limit = 1.1 (%))

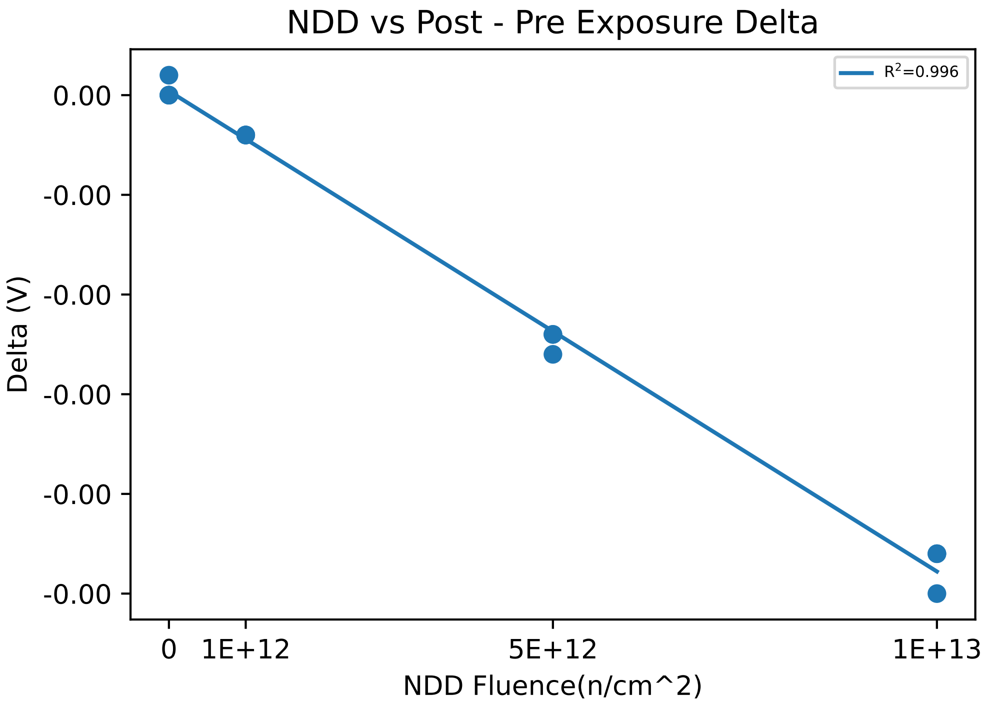
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.0311	-0.0069	-0.038
65	1e+12	NDD unbiased	0.0168	-0.0205	-0.0373
66	1e+12	NDD unbiased	0.0262	-0.0126	-0.0388
67	1e+13	NDD unbiased	0.1489	-0.2664	-0.4153
68	1e+13	NDD unbiased	0.0101	-0.3895	-0.3996
70	1e+13	NDD unbiased	-0.03	-0.4262	-0.3962
71	5e+12	NDD unbiased	0.0129	-0.1945	-0.2074
72	5e+12	NDD unbiased	0.0485	-0.1434	-0.1919
73	5e+12	NDD unbiased	-0.0407	-0.2495	-0.2088
187	0	Correlation	0.0186	0.0167	-0.0019
188	0	Correlation	0.0433	0.0372	-0.0061
189	0	Correlation	0.1455	0.1476	0.0021
190	0	Correlation	0.1379	0.1352	-0.0027

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	0.0186	0.086325	0.1455	0.064806	0.0167	0.084175	0.1476	0.066798	-0.0061	-0.00215	0.0021	0.003368
1e+12	0.0168	0.0247	0.0311	0.007267	-0.0205	-0.013333	-0.0069	0.0068296	-0.0388	-0.038033	-0.0373	0.00075056
5e+12	-0.0407	0.0069	0.0485	0.044902	-0.2495	-0.1958	-0.1434	0.053062	-0.2088	-0.2027	-0.1919	0.0093792
1e+13	-0.03	0.043	0.1489	0.093878	-0.4262	-0.3607	-0.2664	0.083702	-0.4153	-0.4037	-0.3962	0.010189

Device Test: 15.79 VFB_25C(FB|VFB/FB/14/13.3//2000//@VFB_25C)





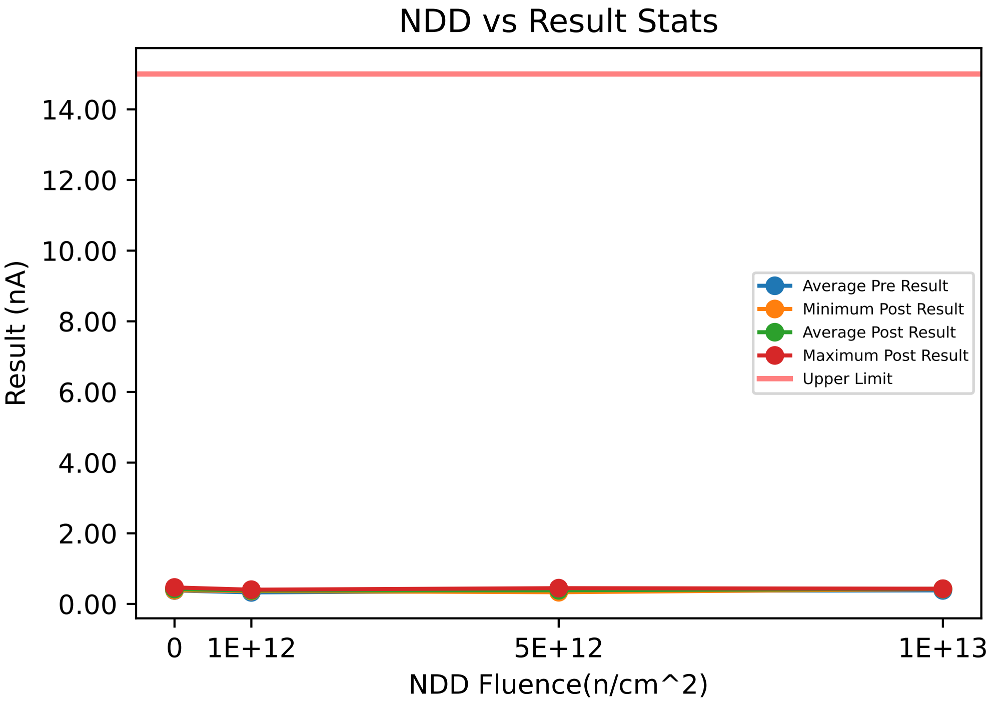
Test Results (Lower Limit = 0.591, Upper Limit = 0.603 (V))

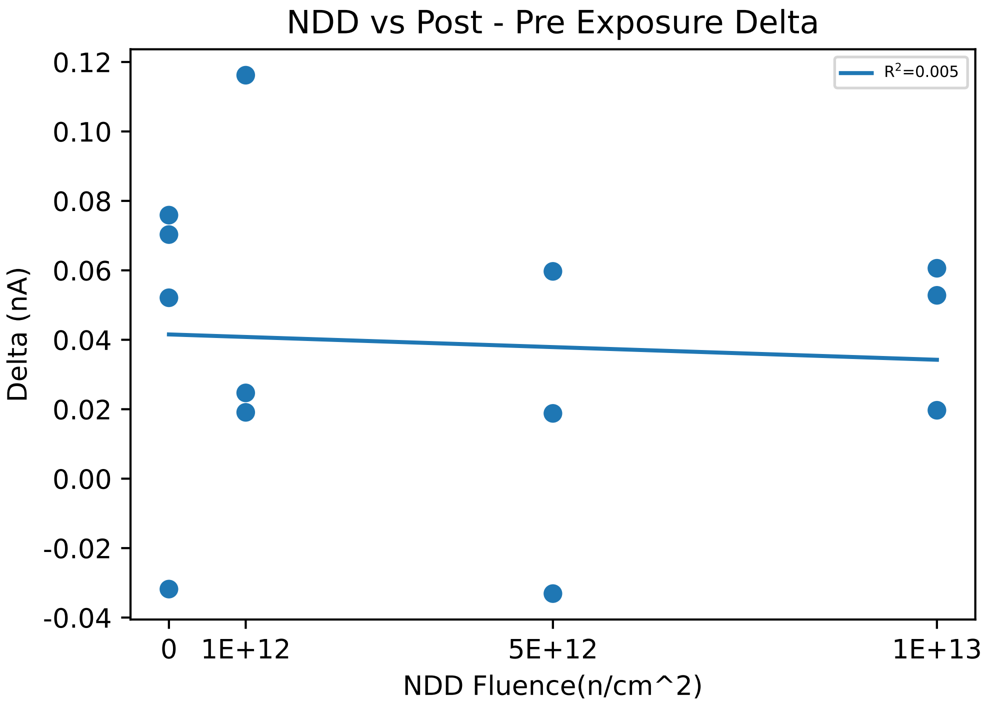
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.5961	0.5959	-0.0002
65	1e+12	NDD unbiased	0.596	0.5958	-0.0002
66	1e+12	NDD unbiased	0.596	0.5958	-0.0002
67	1e+13	NDD unbiased	0.5968	0.5943	-0.0025
68	1e+13	NDD unbiased	0.5959	0.5936	-0.0023
70	1e+13	NDD unbiased	0.5957	0.5934	-0.0023
71	5e+12	NDD unbiased	0.596	0.5947	-0.0013
72	5e+12	NDD unbiased	0.5962	0.595	-0.0012
73	5e+12	NDD unbiased	0.5956	0.5944	-0.0012
187	0	Correlation	0.596	0.596	0
188	0	Correlation	0.5961	0.5961	0
189	0	Correlation	0.5967	0.5968	0.0001
190	0	Correlation	0.5967	0.5967	0

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	0.596	0.59637	0.5967	0.00037749	0.596	0.5964	0.5968	0.00040825	0	2.5e-05	0.0001	5e-05
1e+12	0.596	0.59603	0.5961	5.7735e-05	0.5958	0.59583	0.5959	5.7735e-05	-0.0002	-0.0002	-0.0002	0
5e+12	0.5956	0.59593	0.5962	0.00030551	0.5944	0.5947	0.595	0.0003	-0.0013	-0.0012333	-0.0012	5.7735e-05
1e+13	0.5957	0.59613	0.5968	0.00058595	0.5934	0.59377	0.5943	0.00047258	-0.0025	-0.0023667	-0.0023	0.00011547

Device Test: 15.80 I_FB(LEAK|CURRENT/FB/5/////@I_FB)





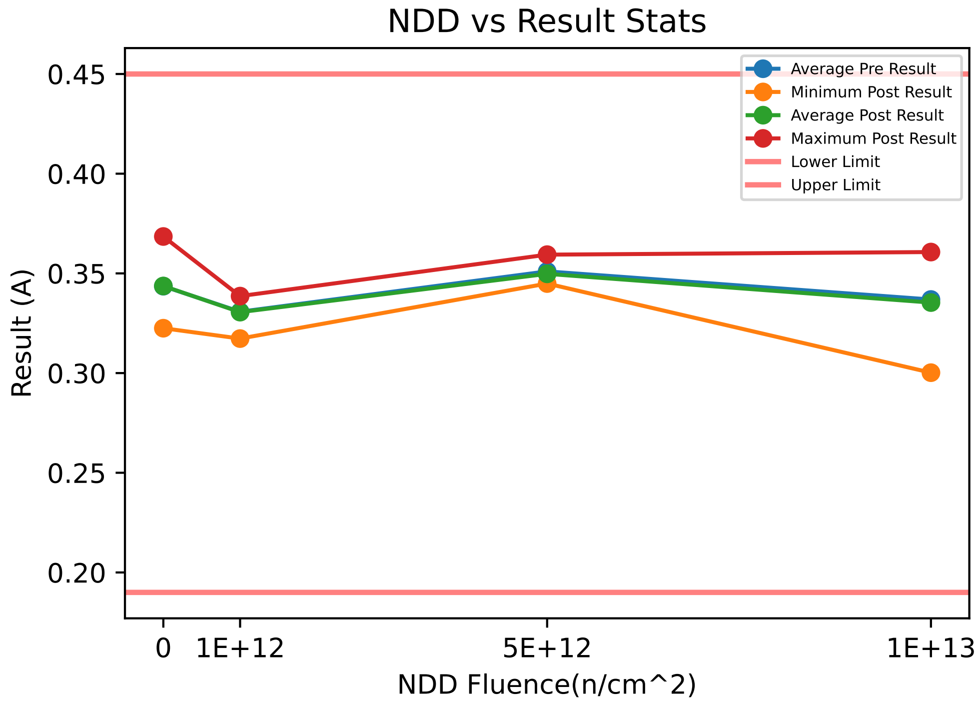
Test Results (Upper Limit = 15.0 (nA))

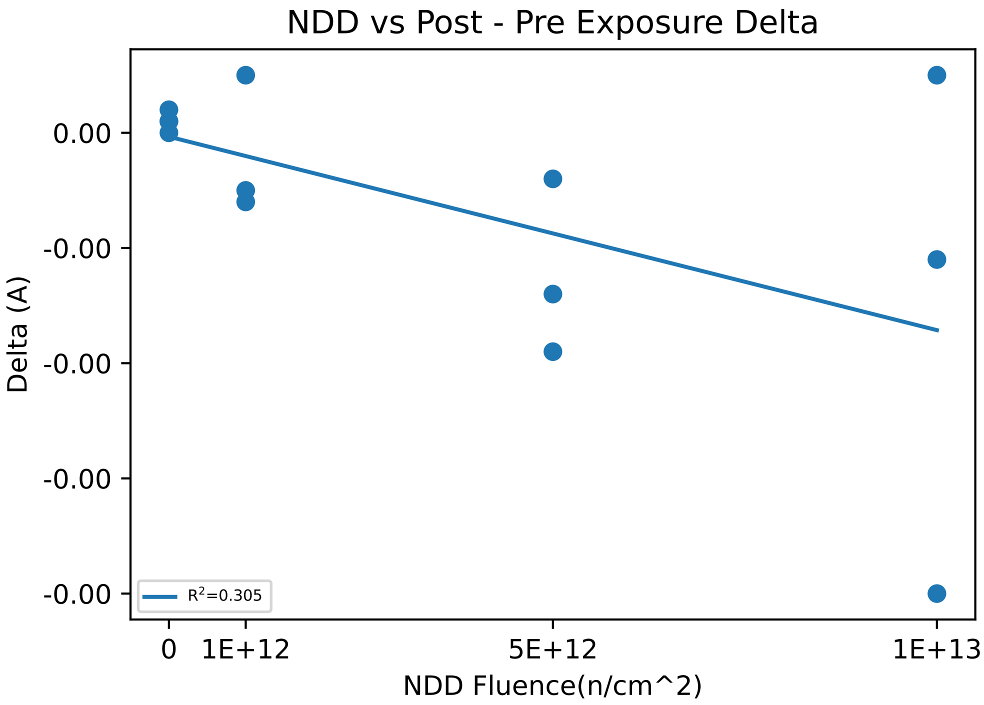
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.2883	0.4045	0.1162
65	1e+12	NDD unbiased	0.3411	0.3658	0.0247
66	1e+12	NDD unbiased	0.3523	0.3714	0.0191
67	1e+13	NDD unbiased	0.3789	0.4317	0.0528
68	1e+13	NDD unbiased	0.3683	0.4289	0.0606
70	1e+13	NDD unbiased	0.4029	0.4226	0.0197
71	5e+12	NDD unbiased	0.3629	0.3817	0.0188
72	5e+12	NDD unbiased	0.3642	0.3311	-0.0331
73	5e+12	NDD unbiased	0.3879	0.4476	0.0597
187	0	Correlation	0.397	0.4673	0.0703
188	0	Correlation	0.353	0.4051	0.0521
189	0	Correlation	0.3545	0.4304	0.0759
190	0	Correlation	0.4185	0.3867	-0.0318

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	0.353	0.38075	0.4185	0.032395	0.3867	0.42238	0.4673	0.034899	-0.0318	0.041625	0.0759	0.049993
1e+12	0.2883	0.32723	0.3523	0.034179	0.3658	0.38057	0.4045	0.020915	0.0191	0.053333	0.1162	0.054516
5e+12	0.3629	0.37167	0.3879	0.014073	0.3311	0.3868	0.4476	0.058417	-0.0331	0.015133	0.0597	0.046509
1e+13	0.3683	0.38337	0.4029	0.017727	0.4226	0.42773	0.4317	0.0046608	0.0197	0.044367	0.0606	0.021715

Device Test: 16.1 I_LIM_MIN(THRESHOLD|CL_MIN/CL/3.3/////@I_LIM_MIN)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

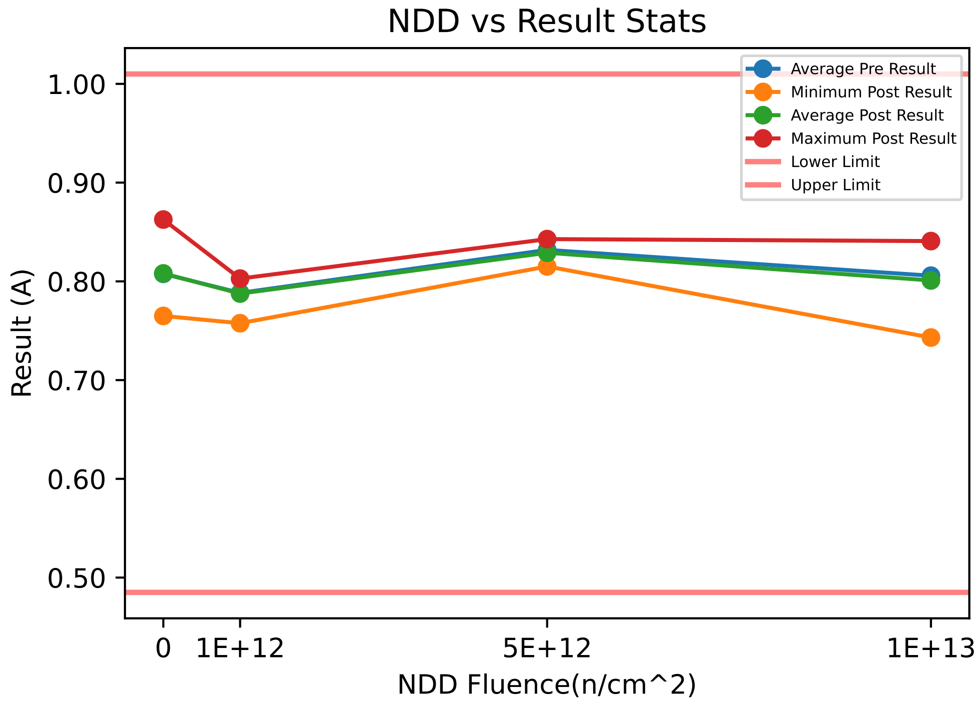
Test Results (Lower Limit = 0.19, Upper Limit = 0.45 (A))

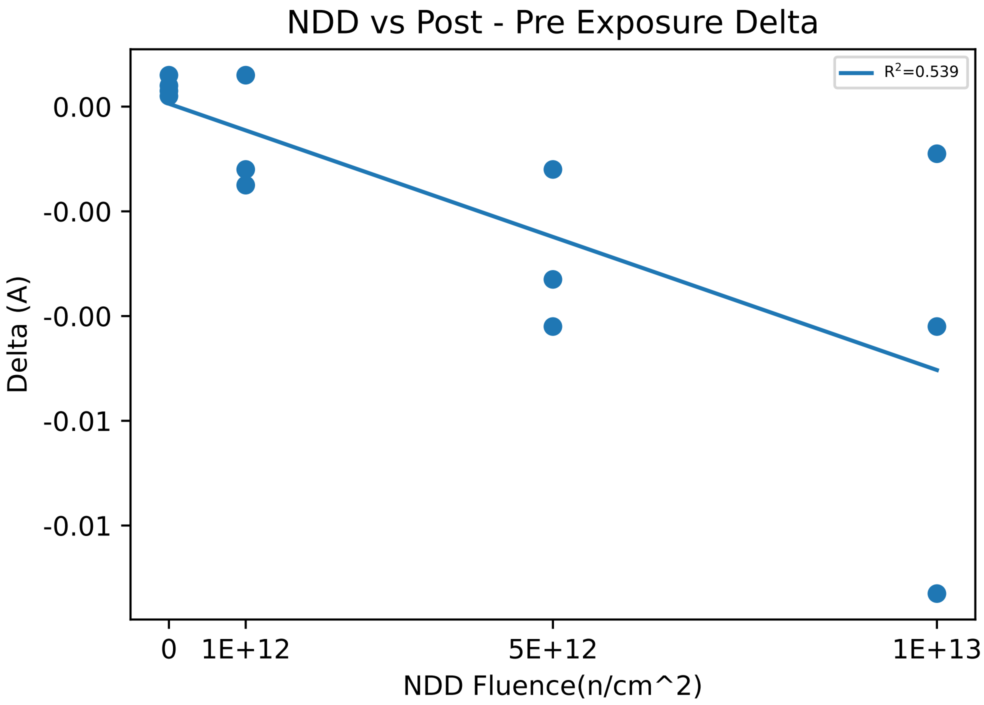
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.3392	0.3386	-0.0006
65	1e+12	NDD unbiased	0.3353	0.3358	0.0005
66	1e+12	NDD unbiased	0.3178	0.3173	-0.0005
67	1e+13	NDD unbiased	0.3463	0.3452	-0.0011
68	1e+13	NDD unbiased	0.2997	0.3002	0.0005
70	1e+13	NDD unbiased	0.3647	0.3607	-0.004
71	5e+12	NDD unbiased	0.3463	0.3449	-0.0014
72	5e+12	NDD unbiased	0.3613	0.3594	-0.0019
73	5e+12	NDD unbiased	0.3454	0.345	-0.0004
187	0	Correlation	0.3224	0.3225	0.0001
188	0	Correlation	0.3351	0.3353	0.0002
189	0	Correlation	0.3483	0.3484	0.0001
190	0	Correlation	0.3685	0.3685	0

Test Statistics (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	0.3224	0.34358	0.3685	0.019696	0.3225	0.34368	0.3685	0.019639	0	0.0001	0.0002	8.165e-05
1e+12	0.3178	0.33077	0.3392	0.011398	0.3173	0.33057	0.3386	0.011574	-0.0006	-0.0002	0.0005	0.00060828
5e+12	0.3454	0.351	0.3613	0.0089314	0.3449	0.34977	0.3594	0.0083429	-0.0019	-0.0012333	-0.0004	0.00076376
1e+13	0.2997	0.3369	0.3647	0.033504	0.3002	0.33537	0.3607	0.031426	-0.004	-0.0015333	0.0005	0.0022811

Device Test: 16.2 I_LIM_SMALL(THRESHOLD|CL_SMALL/CL/3.3/////@I_LIM_SMALL)





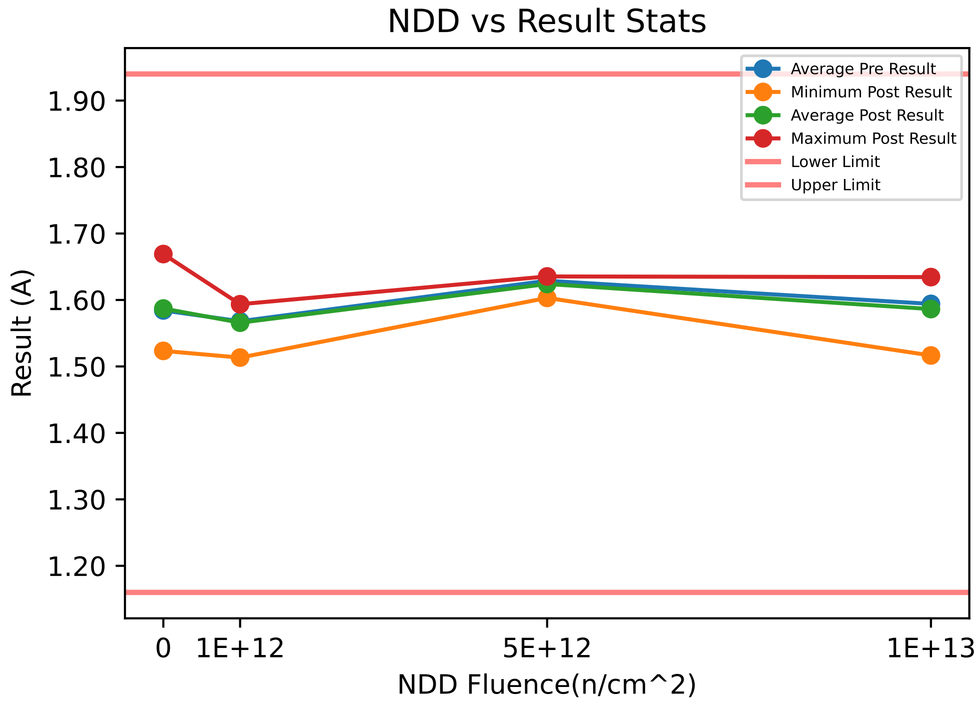
Test Results (Lower Limit = 0.485, Upper Limit = 1.01 (A))

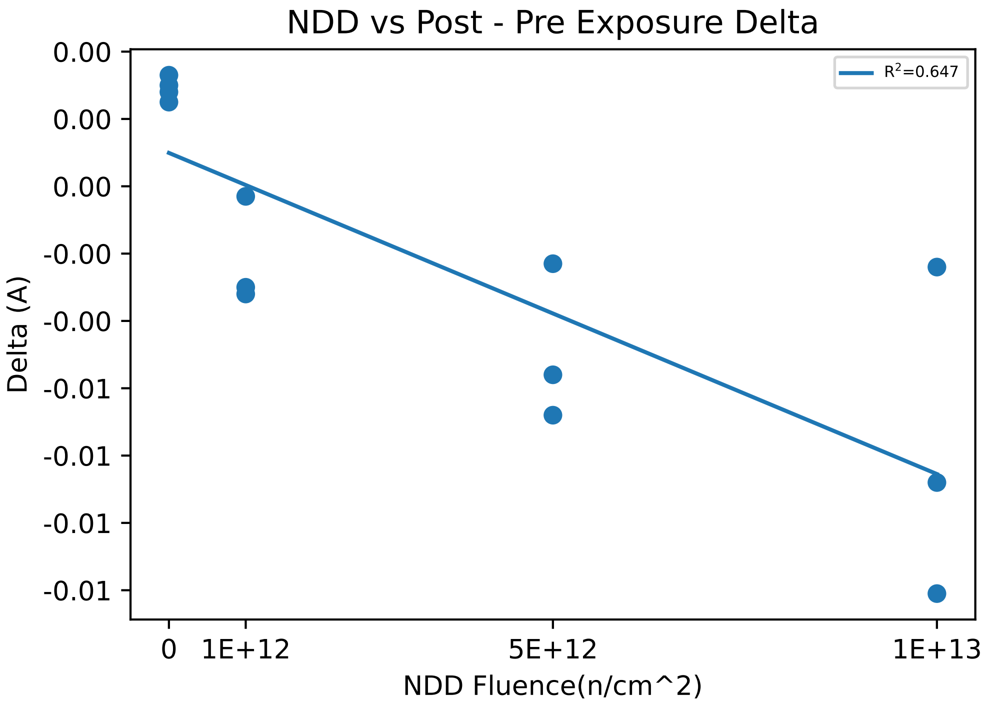
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.804	0.8025	-0.0015
65	1e+12	NDD unbiased	0.8022	0.8028	0.0006
66	1e+12	NDD unbiased	0.7588	0.7576	-0.0012
67	1e+13	NDD unbiased	0.8231	0.8189	-0.0042
68	1e+13	NDD unbiased	0.744	0.7431	-0.0009
70	1e+13	NDD unbiased	0.8501	0.8408	-0.0093
71	5e+12	NDD unbiased	0.8184	0.8151	-0.0033
72	5e+12	NDD unbiased	0.847	0.8428	-0.0042
73	5e+12	NDD unbiased	0.8302	0.829	-0.0012
187	0	Correlation	0.7647	0.765	0.0003
188	0	Correlation	0.7932	0.7938	0.0006
189	0	Correlation	0.8105	0.8107	0.0002
190	0	Correlation	0.8622	0.8626	0.0004

Test Statistics (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	0.7647	0.80765	0.8622	0.040977	0.765	0.80802	0.8626	0.040984	0.0002	0.000375	0.0006	0.00017078
1e+12	0.7588	0.78833	0.804	0.025592	0.7576	0.78763	0.8028	0.02601	-0.0015	-0.0007	0.0006	0.0011358
5e+12	0.8184	0.83187	0.847	0.014373	0.8151	0.82897	0.8428	0.01385	-0.0042	-0.0029	-0.0012	0.0015395
1e+13	0.744	0.80573	0.8501	0.055141	0.7431	0.80093	0.8408	0.051268	-0.0093	-0.0048	-0.0009	0.004232

Device Test: 16.3 I_LIM_LARGE(THRESHOLD|CL_LARGE/CL/3.3/////@I_LIM_LARGE)





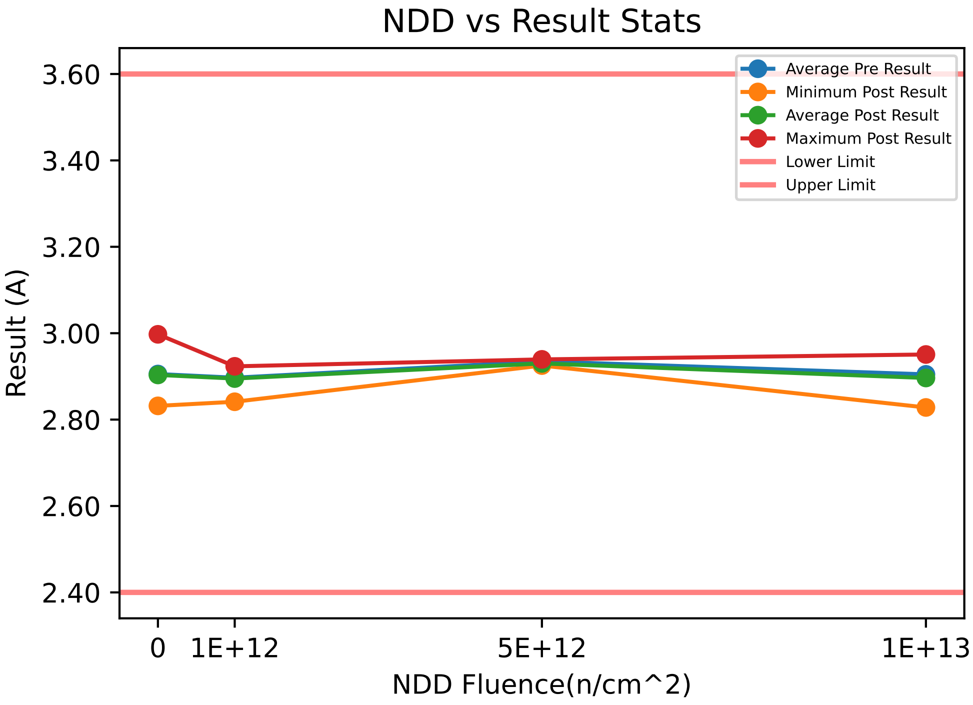
Test Results (Lower Limit = 1.16, Upper Limit = 1.94 (A))

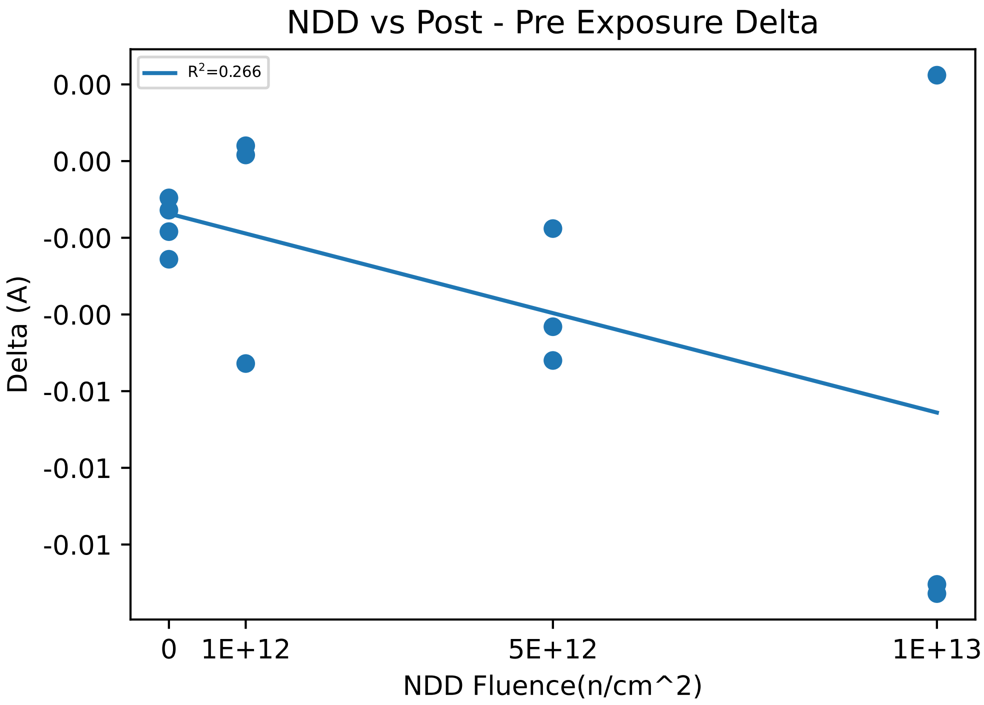
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	1.5938	1.5906	-0.0032
65	1e+12	NDD unbiased	1.5939	1.5936	-0.0003
66	1e+12	NDD unbiased	1.5163	1.5133	-0.003
67	1e+13	NDD unbiased	1.6169	1.6081	-0.0088
68	1e+13	NDD unbiased	1.5189	1.5165	-0.0024
70	1e+13	NDD unbiased	1.6465	1.6344	-0.0121
71	5e+12	NDD unbiased	1.6087	1.6031	-0.0056
72	5e+12	NDD unbiased	1.6422	1.6354	-0.0068
73	5e+12	NDD unbiased	1.6359	1.6336	-0.0023
187	0	Correlation	1.5206	1.5234	0.0028
188	0	Correlation	1.5706	1.5736	0.003
189	0	Correlation	1.5791	1.5824	0.0033
190	0	Correlation	1.6666	1.6691	0.0025

Test Statistics (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	1.5206	1.5842	1.6666	0.060679	1.5234	1.5871	1.6691	0.060515	0.0025	0.0029	0.0033	0.00033665
1e+12	1.5163	1.568	1.5939	0.044774	1.5133	1.5658	1.5936	0.04552	-0.0032	-0.0021667	-0.0003	0.0016197
5e+12	1.6087	1.6289	1.6422	0.017803	1.6031	1.624	1.6354	0.018151	-0.0068	-0.0049	-0.0023	0.0023302
1e+13	1.5189	1.5941	1.6465	0.066786	1.5165	1.5863	1.6344	0.061891	-0.0121	-0.0077667	-0.0024	0.0049319

Device Test: 16.4 I_LIM_MAX(THRESHOLD|CL_MAX/CL/3.3/////@I_LIM_MAX)





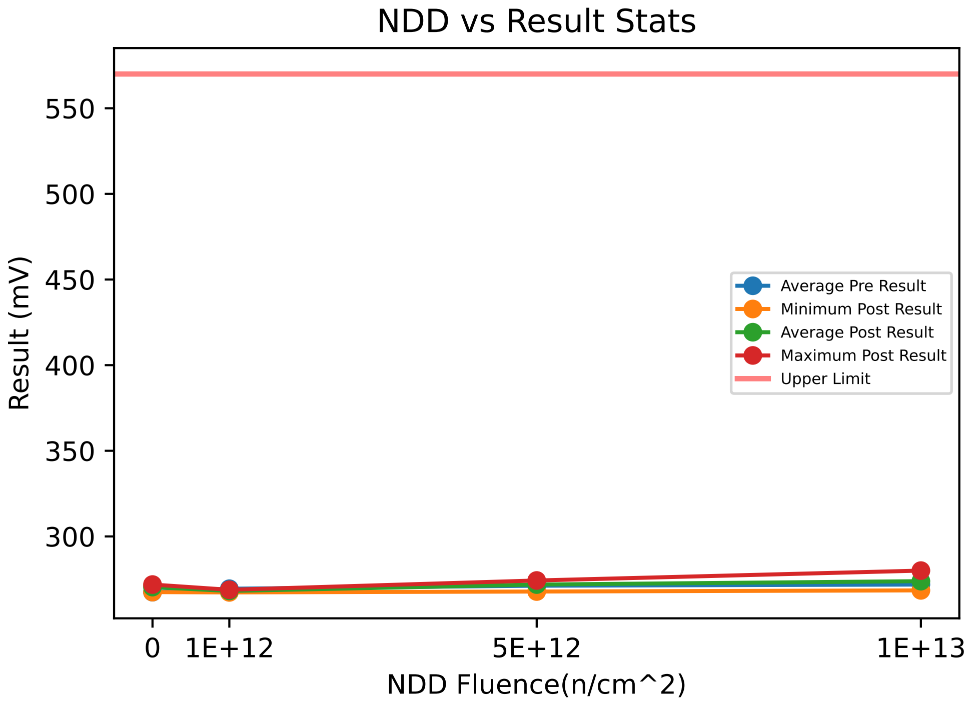
Test Results (Lower Limit = 2.4, Upper Limit = 3.6 (A))

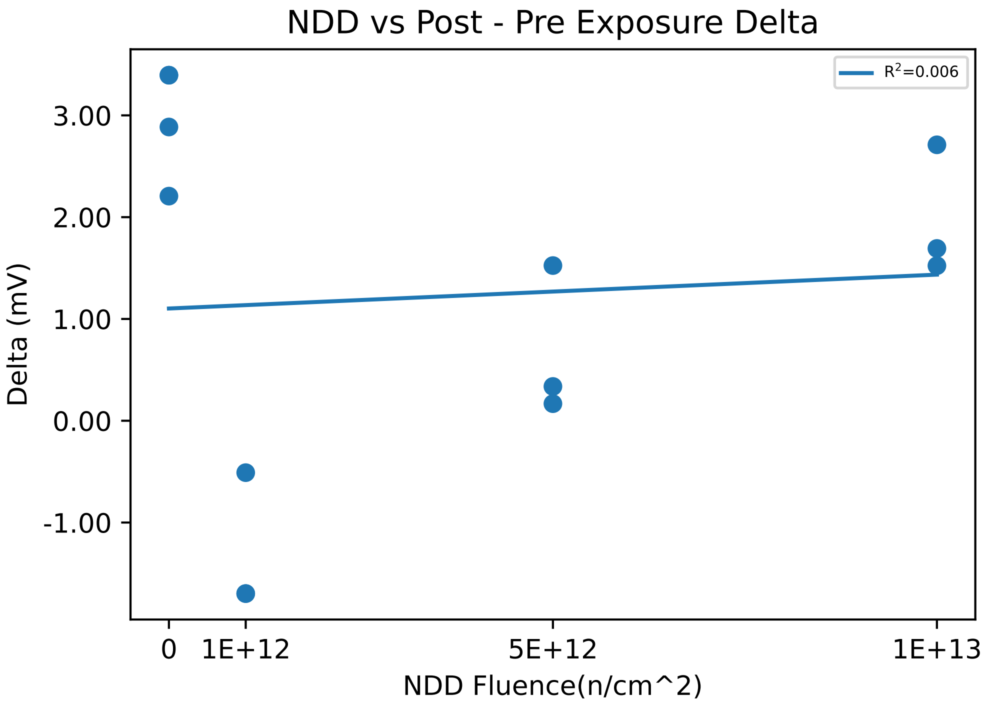
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	2.9202	2.9204	0.0002
65	1e+12	NDD unbiased	2.9228	2.9233	0.0005
66	1e+12	NDD unbiased	2.8479	2.8413	-0.0066
67	1e+13	NDD unbiased	2.9244	2.9103	-0.0141
68	1e+13	NDD unbiased	2.8253	2.8281	0.0028
70	1e+13	NDD unbiased	2.9645	2.9507	-0.0138
71	5e+12	NDD unbiased	2.931	2.9256	-0.0054
72	5e+12	NDD unbiased	2.9316	2.9251	-0.0065
73	5e+12	NDD unbiased	2.9416	2.9394	-0.0022
187	0	Correlation	2.835	2.8318	-0.0032
188	0	Correlation	2.8843	2.882	-0.0023
189	0	Correlation	2.904	2.9024	-0.0016
190	0	Correlation	2.9986	2.9974	-0.0012

Test Statistics (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	2.835	2.9055	2.9986	0.068531	2.8318	2.9034	2.9974	0.069334	-0.0032	-0.002075	-0.0012	0.00087702
1e+12	2.8479	2.897	2.9228	0.042513	2.8413	2.895	2.9233	0.046528	-0.0066	-0.0019667	0.0005	0.0040154
5e+12	2.931	2.9347	2.9416	0.0059543	2.9251	2.93	2.9394	0.0081156	-0.0065	-0.0047	-0.0022	0.0022338
1e+13	2.8253	2.9047	2.9645	0.071654	2.8281	2.8964	2.9507	0.062476	-0.0141	-0.0083667	0.0028	0.0096718

Device Test: 17.12 VDO_1A_LV(VIN|DROPOUT/OUT//2.25//1000//@VDO_1A_LV)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

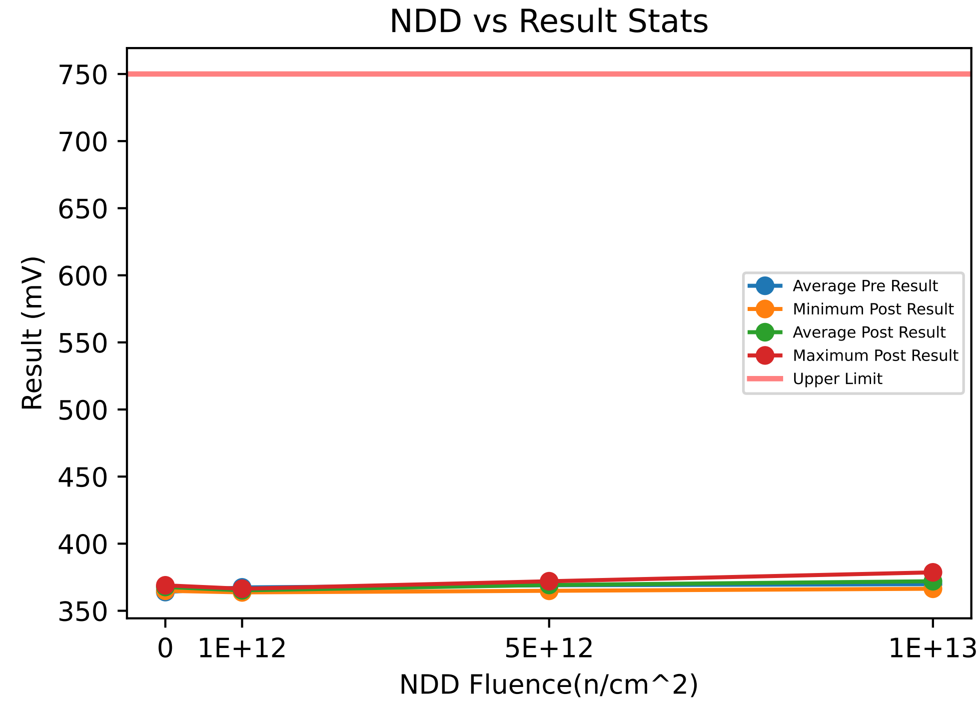
Test Results (Upper Limit = 570.0 (mV))

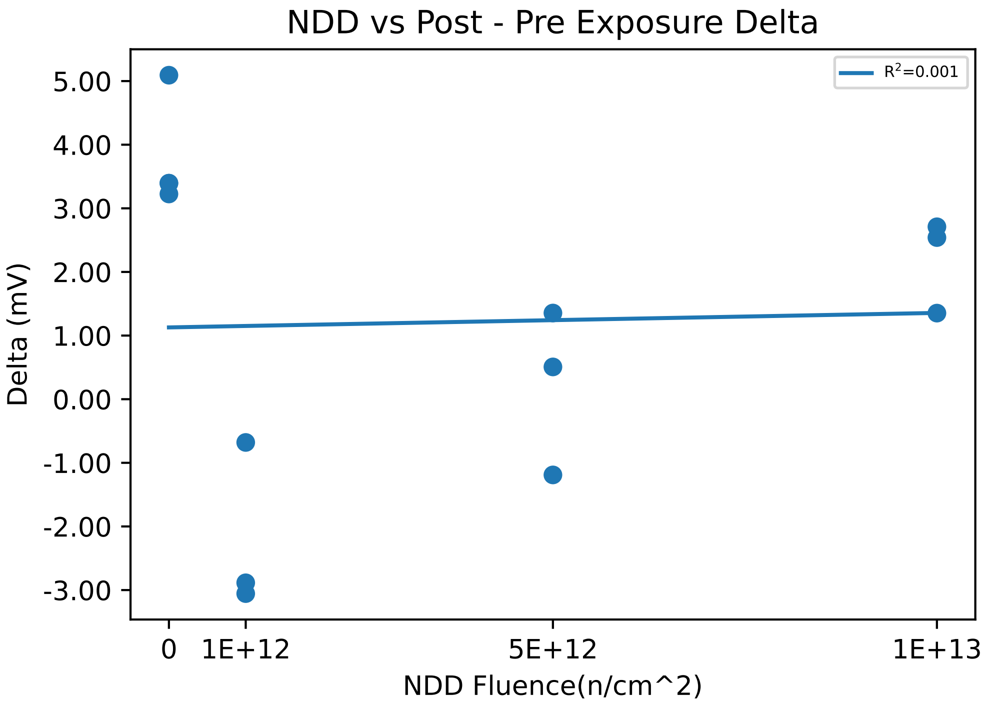
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	269.01	267.32	-1.6976
65	1e+12	NDD unbiased	270.03	268.33	-1.6981
66	1e+12	NDD unbiased	269.35	268.84	-0.51
67	1e+13	NDD unbiased	266.81	268.5	1.6926
68	1e+13	NDD unbiased	277.33	280.04	2.7108
70	1e+13	NDD unbiased	271.56	273.08	1.5232
71	5e+12	NDD unbiased	273.94	274.27	0.3369
72	5e+12	NDD unbiased	273.43	273.59	0.1676
73	5e+12	NDD unbiased	266.3	267.82	1.5245
187	0	Correlation	267.49	270.88	3.3946
188	0	Correlation	267.99	271.39	3.3946
189	0	Correlation	265.28	267.49	2.2066
190	0	Correlation	269.01	271.9	2.8858

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	265.28	267.44	269.01	1.5761	267.49	270.41	271.9	1.9954	2.2066	2.9704	3.3946	0.56286
1e+12	269.01	269.47	270.03	0.51846	267.32	268.16	268.84	0.77762	-1.6981	-1.3019	-0.51	0.68581
5e+12	266.3	271.22	273.94	4.2705	267.82	271.9	274.27	3.5446	0.1676	0.67633	1.5245	0.7394
1e+13	266.81	271.9	277.33	5.2692	268.5	273.87	280.04	5.8108	1.5232	1.9755	2.7108	0.64237

Device Test: 17.15 VDO_1P5A_LV(VIN|DROPOUT/OUT//2.5//1500//@VDO_1P5A_LV)





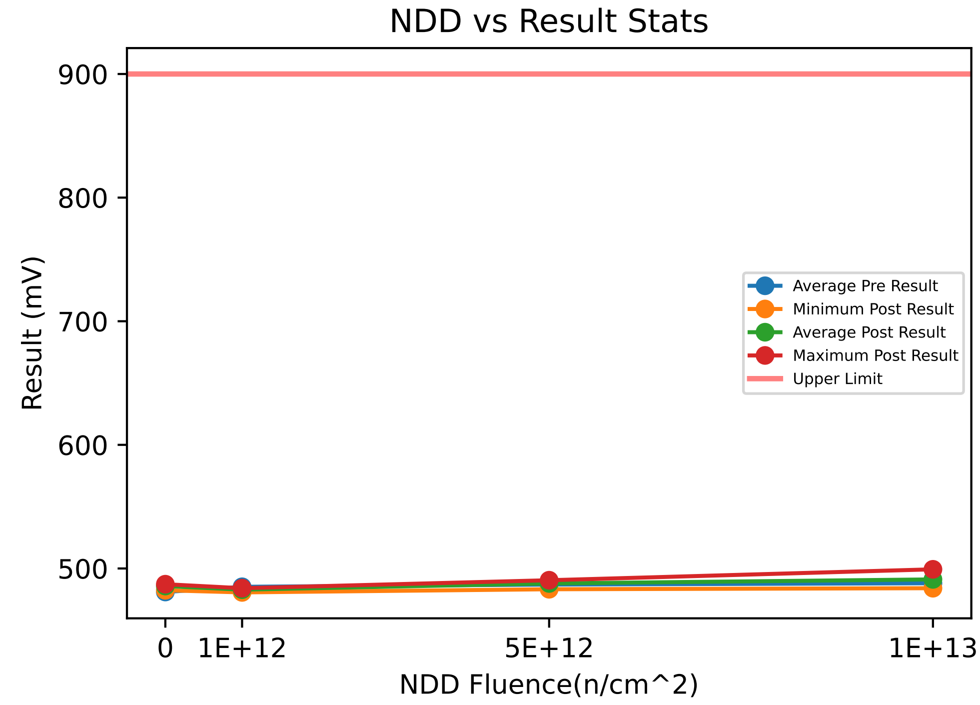
Test Results (Upper Limit = 750.0 (mV))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	366.75	363.7	-3.0555
65	1e+12	NDD unbiased	368.45	365.56	-2.8858
66	1e+12	NDD unbiased	367.09	366.41	-0.6798
67	1e+13	NDD unbiased	363.7	366.41	2.7099
68	1e+13	NDD unbiased	376.09	378.63	2.5404
70	1e+13	NDD unbiased	369.64	370.99	1.353
71	5e+12	NDD unbiased	372.01	370.82	-1.1902
72	5e+12	NDD unbiased	371.5	372.01	0.5073
73	5e+12	NDD unbiased	363.53	364.88	1.3544
187	0	Correlation	363.7	368.79	5.0924
188	0	Correlation	364.88	368.28	3.3949
189	0	Correlation	361.49	364.89	3.3949
190	0	Correlation	365.73	368.96	3.2256

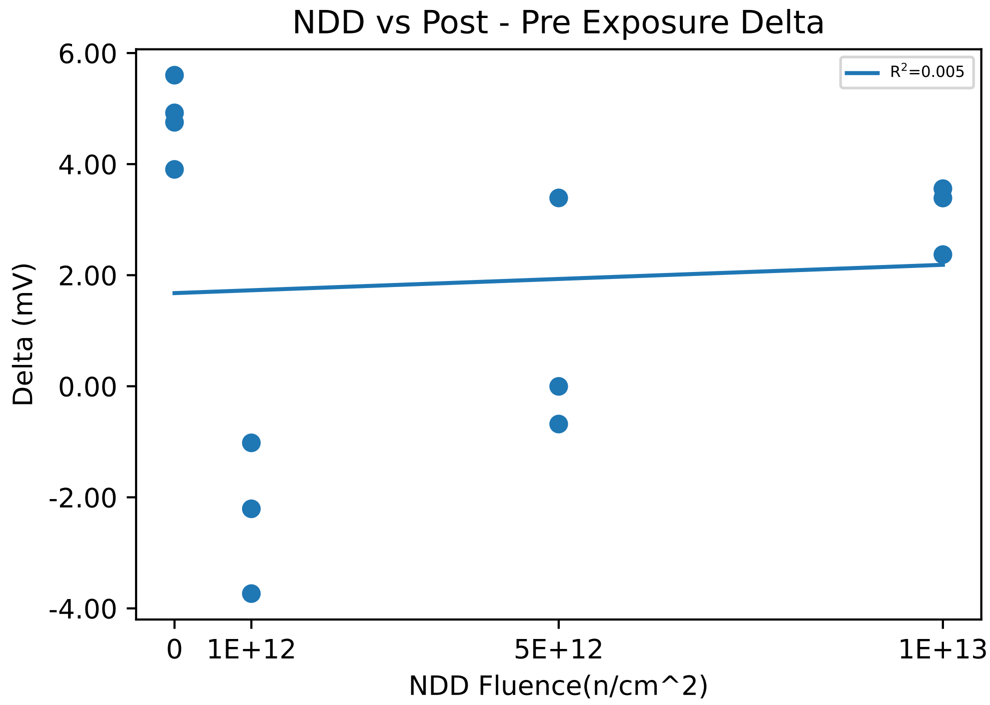
Test Statistics (mV)

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	361.49	363.95	365.73	1.8406	364.89	367.73	368.96	1.9167	3.2256	3.7769	5.0924	0.88059
1e+12	366.75	367.43	368.45	0.89797	363.7	365.22	366.41	1.3894	-3.0555	-2.207	-0.6798	1.3253
5e+12	363.53	369.02	372.01	4.7599	364.88	369.24	372.01	3.8205	-1.1902	0.22383	1.3544	1.2958
1e+13	363.7	369.81	376.09	6.1961	366.41	372.01	378.63	6.173	1.353	2.2011	2.7099	0.73935

Device Test: 17.18 VDO_2A_LV(VIN|DROPOUT/OUT//2.5//2000//@VDO_2A_LV)



NDD vs Result Stats



NDD vs Post - Pre Exposure Delta

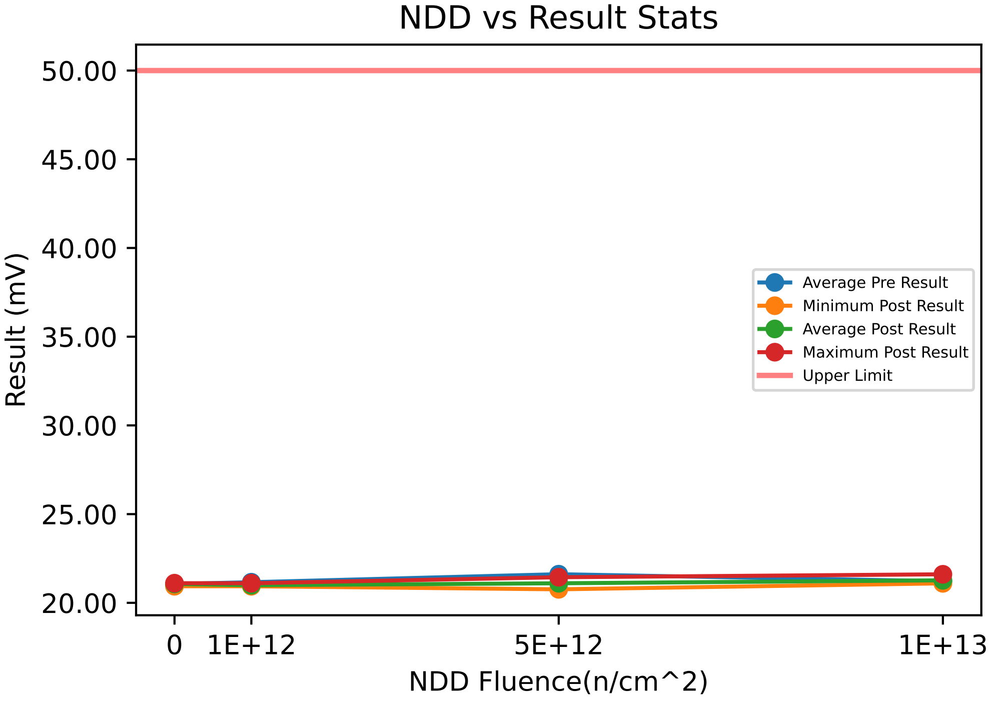
Test Results (Upper Limit = 900.0 (mV))

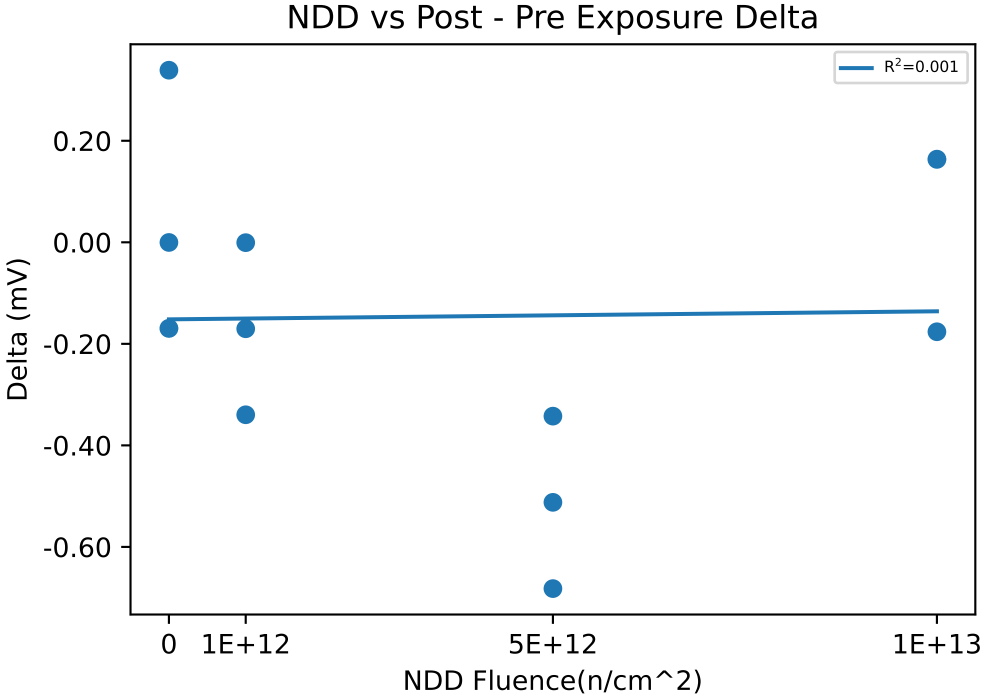
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	484.38	480.64	-3.7341
65	1e+12	NDD unbiased	486.08	483.87	-2.2071
66	1e+12	NDD unbiased	485.06	484.04	-1.0192
67	1e+13	NDD unbiased	480.48	484.03	3.5581
68	1e+13	NDD unbiased	495.92	499.31	3.3893
70	1e+13	NDD unbiased	487.77	490.14	2.3708
71	5e+12	NDD unbiased	490.66	489.98	-0.6807
72	5e+12	NDD unbiased	490.49	490.49	-0.0026
73	5e+12	NDD unbiased	479.8	483.19	3.3908
187	0	Correlation	480.99	486.59	5.6011
188	0	Correlation	482.17	486.92	4.7528
189	0	Correlation	477.42	482.34	4.9229
190	0	Correlation	483.36	487.27	3.9048

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	477.42	480.98	483.36	2.5665	482.34	485.78	487.27	2.3078	3.9048	4.7954	5.6011	0.69771
1e+12	484.38	485.17	486.08	0.85438	480.64	482.85	484.04	1.9128	-3.7341	-2.3201	-1.0192	1.361
5e+12	479.8	486.98	490.66	6.2234	483.19	487.88	490.49	4.0758	-0.6807	0.9025	3.3908	2.1814
1e+13	480.48	488.06	495.92	7.7258	484.03	491.16	499.31	7.6883	2.3708	3.1061	3.5581	0.64233

Device Test: 17.21 VDO_100MA(VIN|DROPOUT/OUT//3//100//@VDO_100MA)





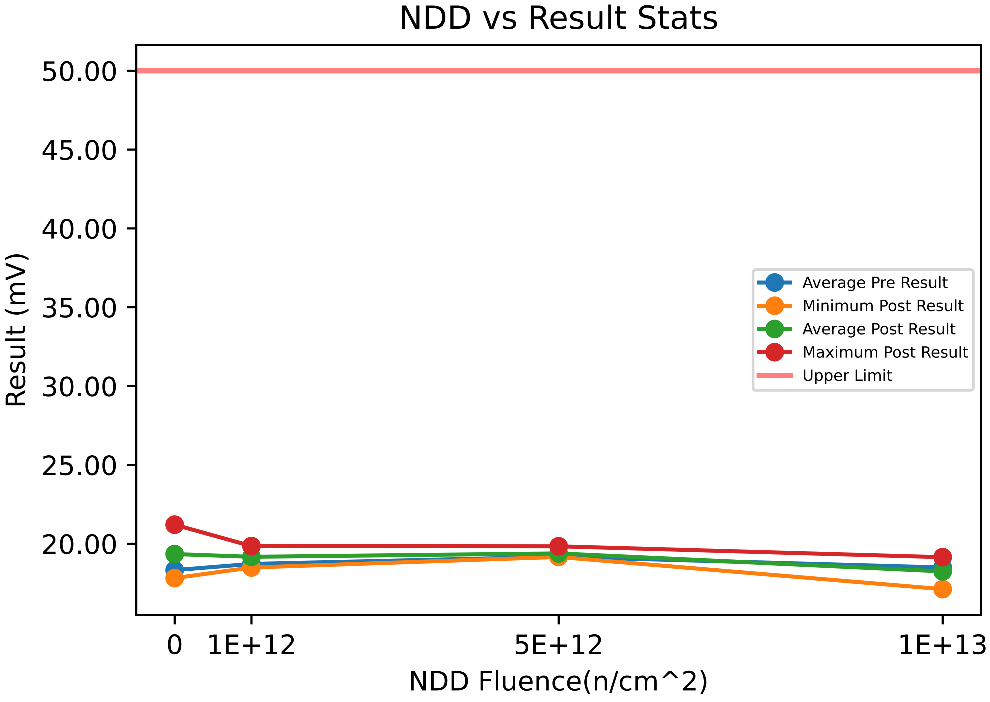
Test Results (Upper Limit = 50.0 (mV))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	20.935	20.935	-0.0007
65	1e+12	NDD unbiased	21.444	21.105	-0.3397
66	1e+12	NDD unbiased	21.105	20.935	-0.1703
67	1e+13	NDD unbiased	20.937	21.101	0.1633
68	1e+13	NDD unbiased	21.444	21.608	0.1638
70	1e+13	NDD unbiased	21.274	21.098	-0.1762
71	5e+12	NDD unbiased	21.784	21.101	-0.6821
72	5e+12	NDD unbiased	21.954	21.442	-0.5122
73	5e+12	NDD unbiased	21.104	20.761	-0.3424
187	0	Correlation	21.105	20.935	-0.1695
188	0	Correlation	21.275	21.105	-0.1695
189	0	Correlation	20.768	21.107	0.339
190	0	Correlation	21.107	21.107	-0.0003

Test Statistics (mV)

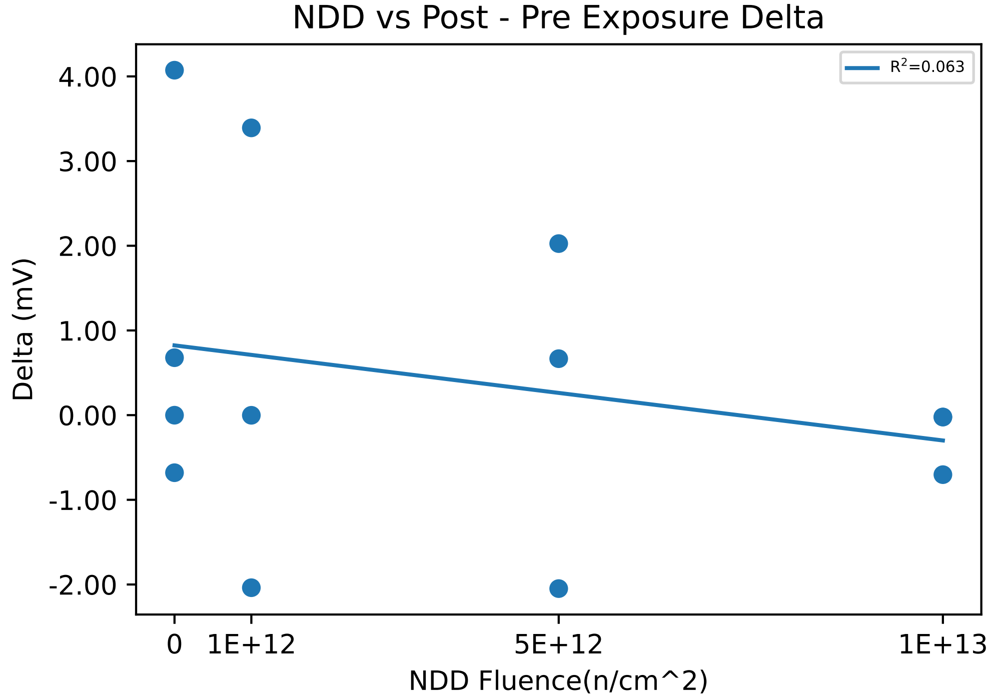
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	20.768	21.064	21.275	0.2127	20.935	21.063	21.107	0.085569	-0.1695	-7.5e-05	0.339	0.23971
1e+12	20.935	21.162	21.444	0.25916	20.935	20.991	21.105	0.098092	-0.3397	-0.17023	-0.0007	0.1695
5e+12	21.104	21.614	21.954	0.4498	20.761	21.102	21.442	0.3402	-0.6821	-0.51223	-0.3424	0.16985
1e+13	20.937	21.218	21.444	0.25799	21.098	21.269	21.608	0.2937	-0.1762	0.0503	0.1638	0.19615

Device Test: 17.24 VDO_100MA(VIN|DROPOUT/OUT//13.3//100//@VDO_100MA)



Test Results (Upper Limit = 50.0 (mV))

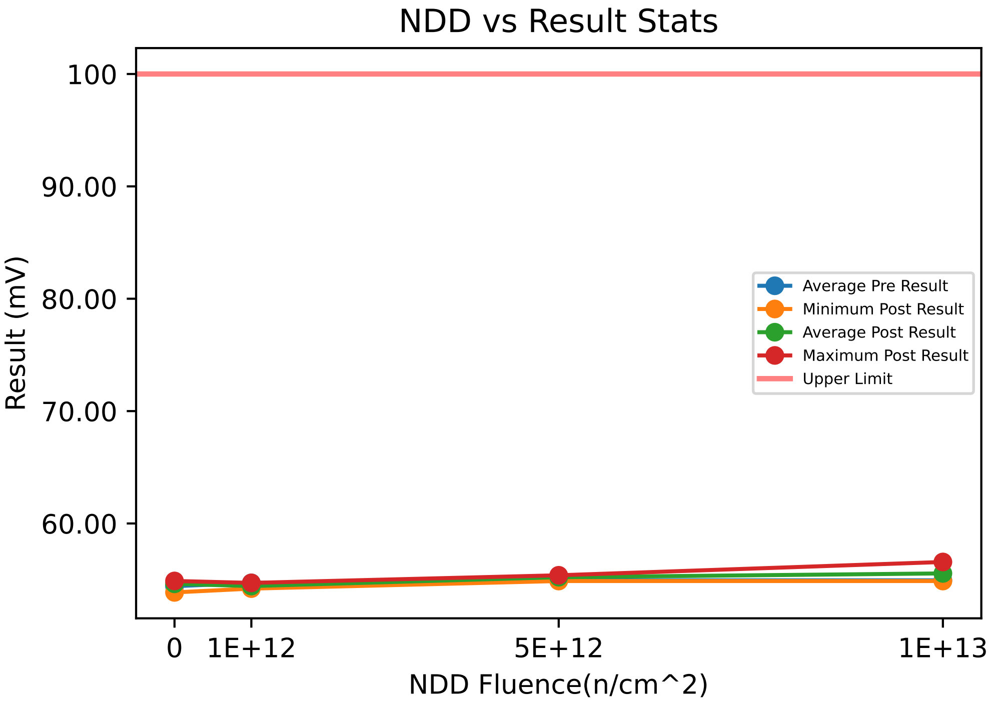
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	16.459	19.852	3.3922
65	1e+12	NDD unbiased	18.496	18.494	-0.0019
66	1e+12	NDD unbiased	21.211	19.173	-2.038
67	1e+13	NDD unbiased	17.824	17.121	-0.7029
68	1e+13	NDD unbiased	18.496	18.474	-0.022
70	1e+13	NDD unbiased	19.172	19.149	-0.0229
71	5e+12	NDD unbiased	21.211	19.162	-2.0485
72	5e+12	NDD unbiased	17.139	19.165	2.0256
73	5e+12	NDD unbiased	19.172	19.838	0.6666
187	0	Correlation	17.137	21.211	4.0732
188	0	Correlation	18.496	19.175	0.6781
189	0	Correlation	18.503	17.823	-0.68
190	0	Correlation	19.182	19.181	-0.0009

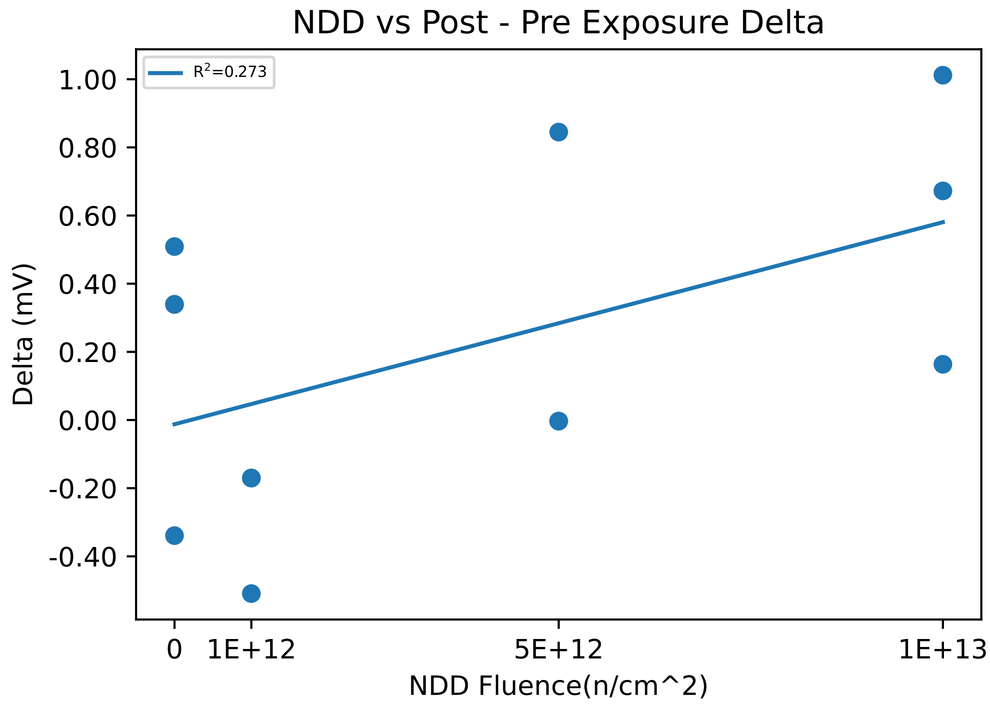


Test Statistics (mV)

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	17.137	18.33	19.182	0.85752	17.823	19.347	21.211	1.3967	-0.68	1.0176	4.0732	2.1112
1e+12	16.459	18.722	21.211	2.3837	18.494	19.173	19.852	0.679	-2.038	0.45077	3.3922	2.7433
5e+12	17.139	19.174	21.211	2.0357	19.162	19.389	19.838	0.38954	-2.0485	0.21457	2.0256	2.0743
1e+13	17.824	18.497	19.172	0.67375	17.121	18.248	19.149	1.0324	-0.7029	-0.24927	-0.022	0.39286

Device Test: 17.27 VDO_250MA(VIN|DROPOUT/OUT//3//250//@VDO_250MA)





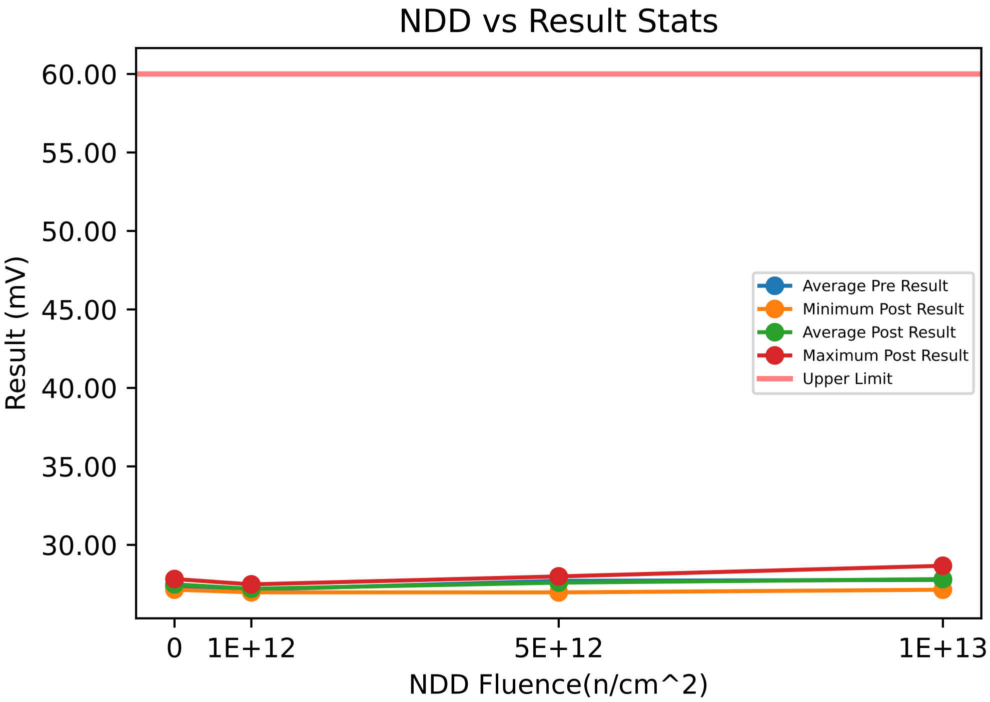
Test Results (Upper Limit = 100.0 (mV))

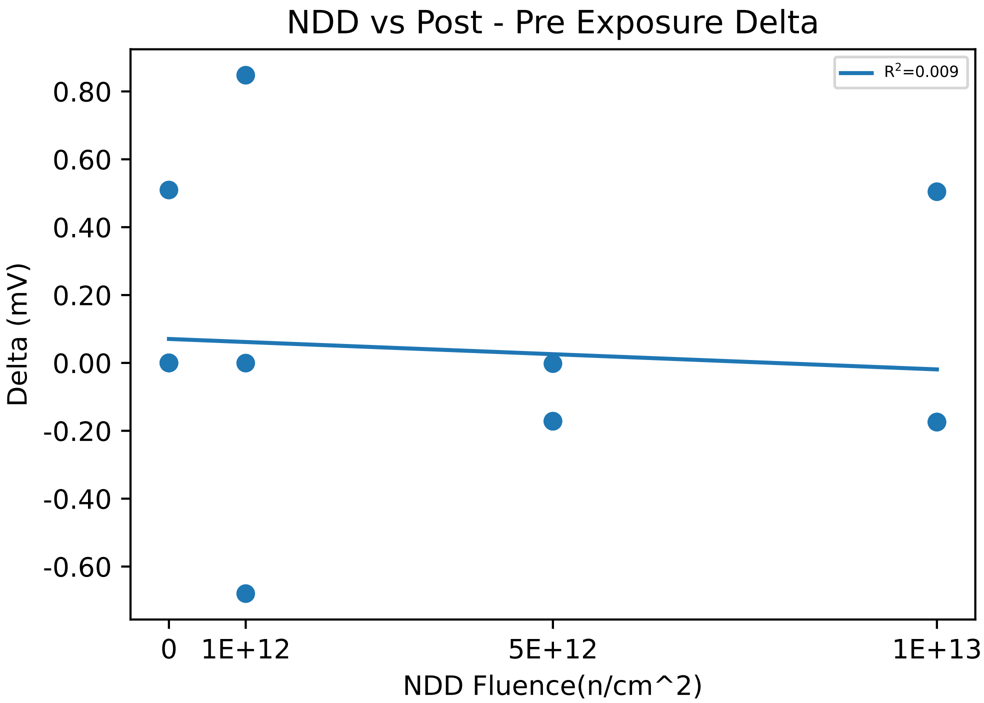
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	54.882	54.372	-0.5093
65	1e+12	NDD unbiased	54.882	54.712	-0.1702
66	1e+12	NDD unbiased	54.373	54.203	-0.1702
67	1e+13	NDD unbiased	54.205	54.878	0.6723
68	1e+13	NDD unbiased	55.561	56.573	1.0118
70	1e+13	NDD unbiased	55.051	55.215	0.1635
71	5e+12	NDD unbiased	55.391	55.388	-0.0031
72	5e+12	NDD unbiased	55.392	55.389	-0.0033
73	5e+12	NDD unbiased	54.033	54.878	0.8449
187	0	Correlation	54.373	54.882	0.509
188	0	Correlation	54.543	54.883	0.3397
189	0	Correlation	54.205	53.866	-0.3392
190	0	Correlation	54.545	54.884	0.339

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	54.205	54.416	54.545	0.16235	53.866	54.628	54.884	0.50848	-0.3392	0.21213	0.509	0.37615
1e+12	54.373	54.712	54.882	0.29387	54.203	54.429	54.712	0.25914	-0.5093	-0.28323	-0.1702	0.19578
5e+12	54.033	54.938	55.392	0.78453	54.878	55.218	55.389	0.29488	-0.0033	0.2795	0.8449	0.48965
1e+13	54.205	54.939	55.561	0.68485	54.878	55.555	56.573	0.8975	0.1635	0.61587	1.0118	0.42696

Device Test: 17.3 VDO_100MA_LV(VIN|DROPOUT/OUT//2.25//100//@VDO_100MA_LV)





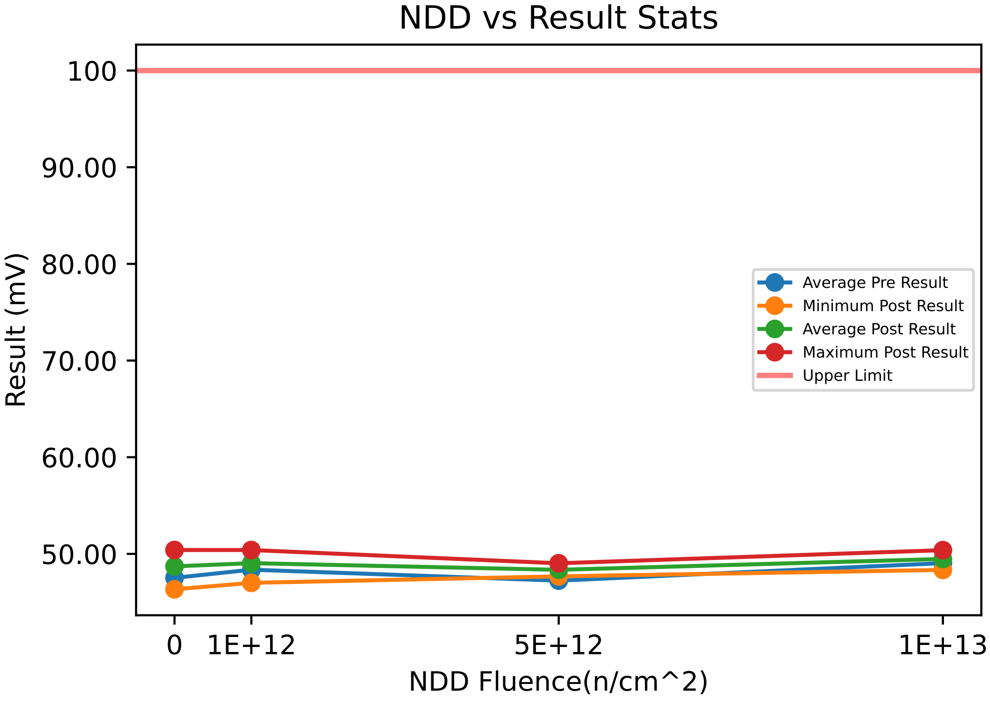
Test Results (Upper Limit = 60.0 (mV))

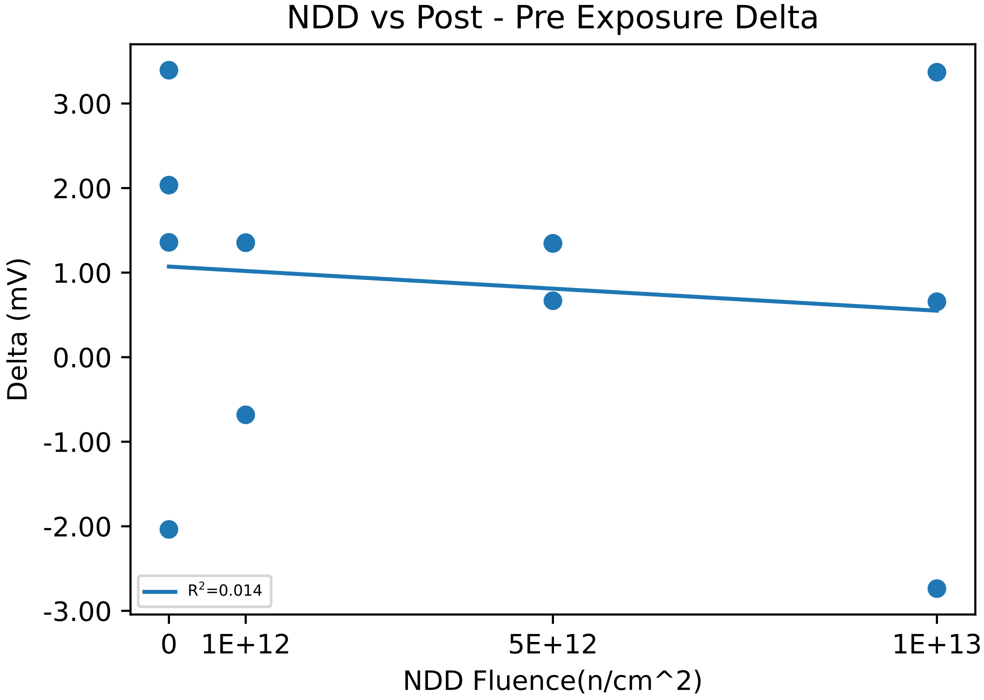
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	27.655	26.975	-0.6797
65	1e+12	NDD unbiased	26.637	27.484	0.8478
66	1e+12	NDD unbiased	27.146	27.145	-0.0005
67	1e+13	NDD unbiased	27.317	27.142	-0.1745
68	1e+13	NDD unbiased	28.164	28.669	0.5045
70	1e+13	NDD unbiased	27.824	27.65	-0.1741
71	5e+12	NDD unbiased	28.164	27.992	-0.1719
72	5e+12	NDD unbiased	27.994	27.823	-0.1717
73	5e+12	NDD unbiased	26.975	26.973	-0.0021
187	0	Correlation	27.315	27.315	-0.0003
188	0	Correlation	27.315	27.825	0.5095
189	0	Correlation	27.147	27.147	0.0003
190	0	Correlation	27.656	27.656	0

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	27.147	27.358	27.656	0.21387	27.147	27.486	27.825	0.30979	-0.0003	0.12737	0.5095	0.25475
1e+12	26.637	27.146	27.655	0.50925	26.975	27.202	27.484	0.25917	-0.6797	0.055867	0.8478	0.76531
5e+12	26.975	27.711	28.164	0.64308	26.973	27.596	27.992	0.54609	-0.1719	-0.11523	-0.0021	0.097976
1e+13	27.317	27.768	28.164	0.42626	27.142	27.82	28.669	0.77723	-0.1745	0.051967	0.5045	0.39191

Device Test: 17.30 VDO_250MA(VIN|DROPOUT/OUT//13.3//250//@VDO_250MA)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

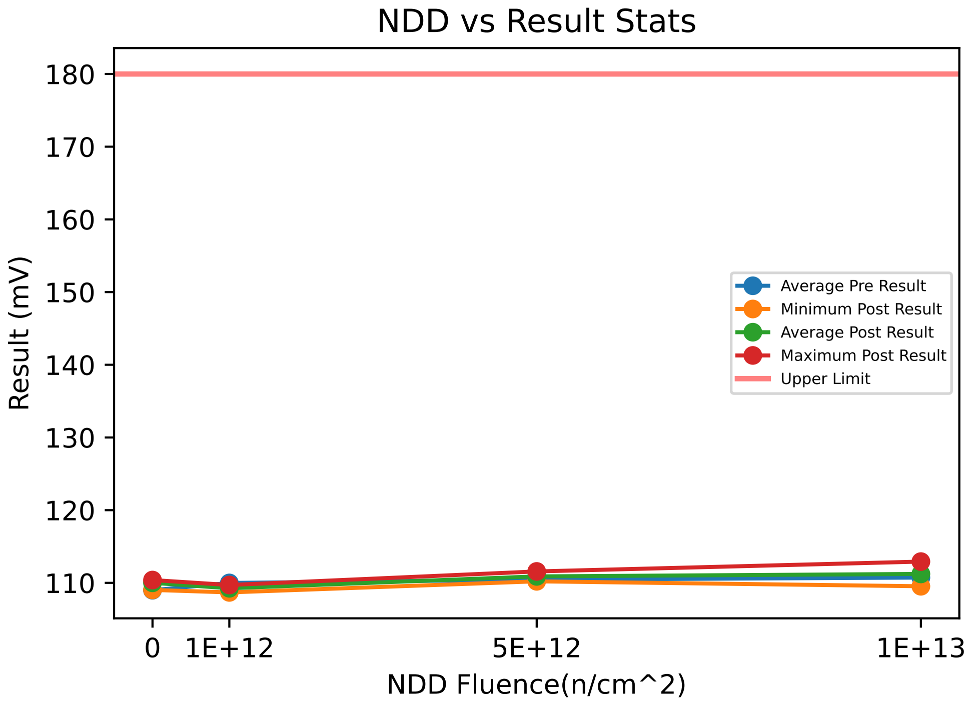
Test Results (Upper Limit = 100.0 (mV))

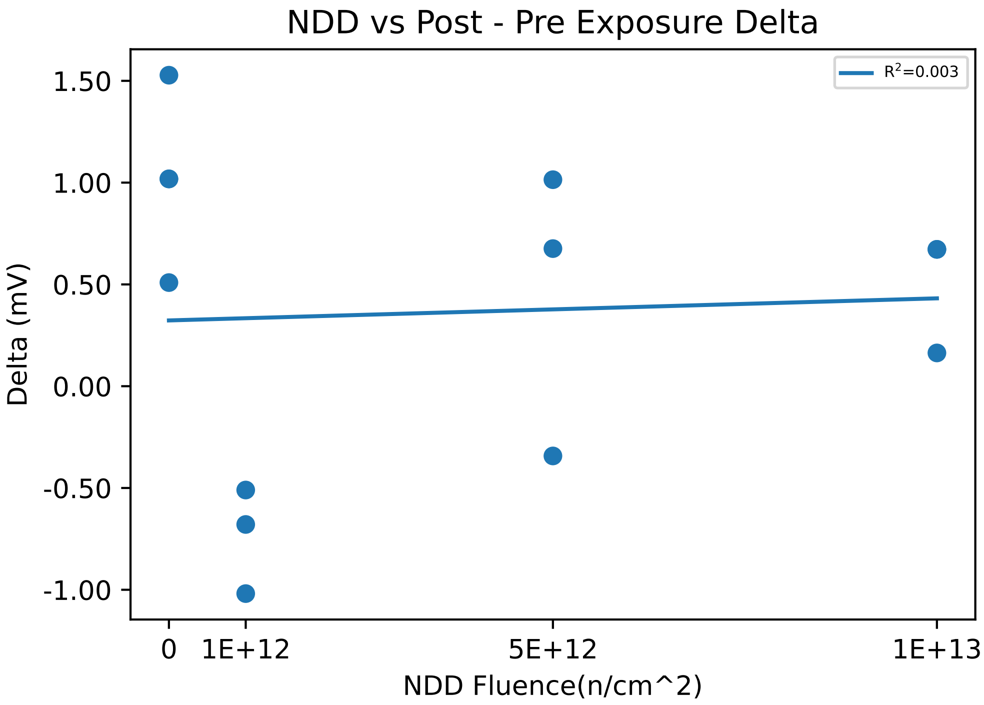
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	48.367	49.721	1.3543
65	1e+12	NDD unbiased	47.686	47.004	-0.6819
66	1e+12	NDD unbiased	49.044	50.398	1.3542
67	1e+13	NDD unbiased	47.014	50.384	3.3703
68	1e+13	NDD unbiased	51.079	48.342	-2.737
70	1e+13	NDD unbiased	49.041	49.697	0.6561
71	5e+12	NDD unbiased	47.686	48.353	0.6676
72	5e+12	NDD unbiased	46.33	47.676	1.3456
73	5e+12	NDD unbiased	47.682	49.027	1.3456
187	0	Correlation	47.006	48.364	1.358
188	0	Correlation	47.008	50.402	3.3941
189	0	Correlation	47.693	49.728	2.0351
190	0	Correlation	48.371	46.334	-2.037

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	47.006	47.519	48.371	0.65366	46.334	48.707	50.402	1.7947	-2.037	1.1876	3.3941	2.3104
1e+12	47.686	48.365	49.044	0.67905	47.004	49.041	50.398	1.7964	-0.6819	0.67553	1.3543	1.1756
5e+12	46.33	47.233	47.686	0.78127	47.676	48.352	49.027	0.67565	0.6676	1.1196	1.3456	0.39144
1e+13	47.014	49.045	51.079	2.0323	48.342	49.474	50.384	1.0394	-2.737	0.4298	3.3703	3.0599

Device Test: 17.33 VDO_500MA(VIN|DROPOUT/OUT//3//500//@VDO_500MA)





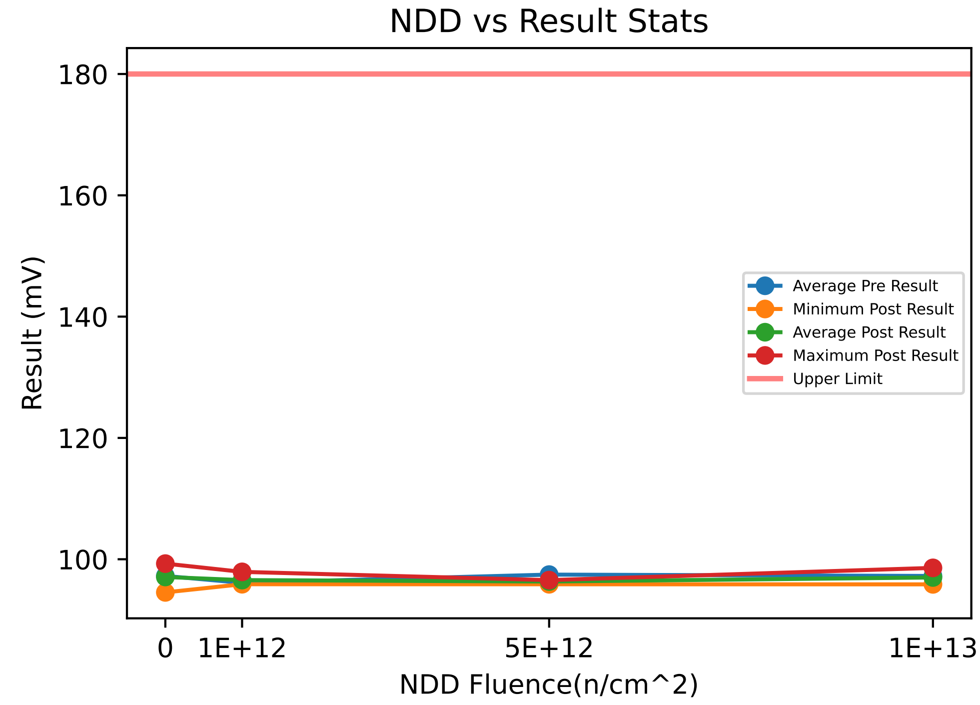
Test Results (Upper Limit = 180.0 (mV))

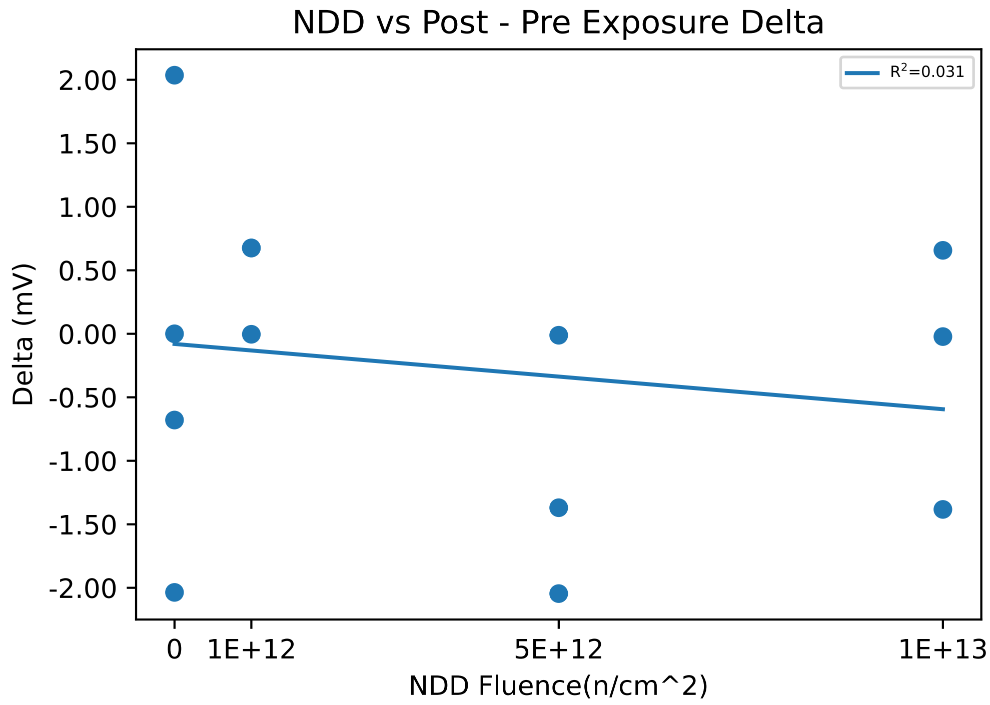
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	109.71	108.69	-1.0188
65	1e+12	NDD unbiased	110.39	109.71	-0.6792
66	1e+12	NDD unbiased	109.88	109.37	-0.51
67	1e+13	NDD unbiased	108.86	109.53	0.6723
68	1e+13	NDD unbiased	112.76	112.93	0.1634
70	1e+13	NDD unbiased	110.56	111.23	0.6721
71	5e+12	NDD unbiased	111.23	110.89	-0.3426
72	5e+12	NDD unbiased	110.9	111.57	0.6759
73	5e+12	NDD unbiased	109.2	110.21	1.0144
187	0	Correlation	108.69	110.22	1.5277
188	0	Correlation	109.37	110.39	1.0181
189	0	Correlation	108.52	109.03	0.509
190	0	Correlation	109.37	110.39	1.0185

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	108.52	108.99	109.37	0.44625	109.03	110	110.39	0.65504	0.509	1.0183	1.5277	0.41588
1e+12	109.71	109.99	110.39	0.35304	108.69	109.25	109.71	0.5184	-1.0188	-0.736	-0.51	0.25911
5e+12	109.2	110.44	111.23	1.0918	110.21	110.89	111.57	0.6801	-0.3426	0.44923	1.0144	0.70633
1e+13	108.86	110.73	112.76	1.9563	109.53	111.23	112.93	1.6963	0.1634	0.5026	0.6723	0.29376

Device Test: 17.36 VDO_500MA(VIN|DROPOUT/OUT//13.3//500//@VDO_500MA)





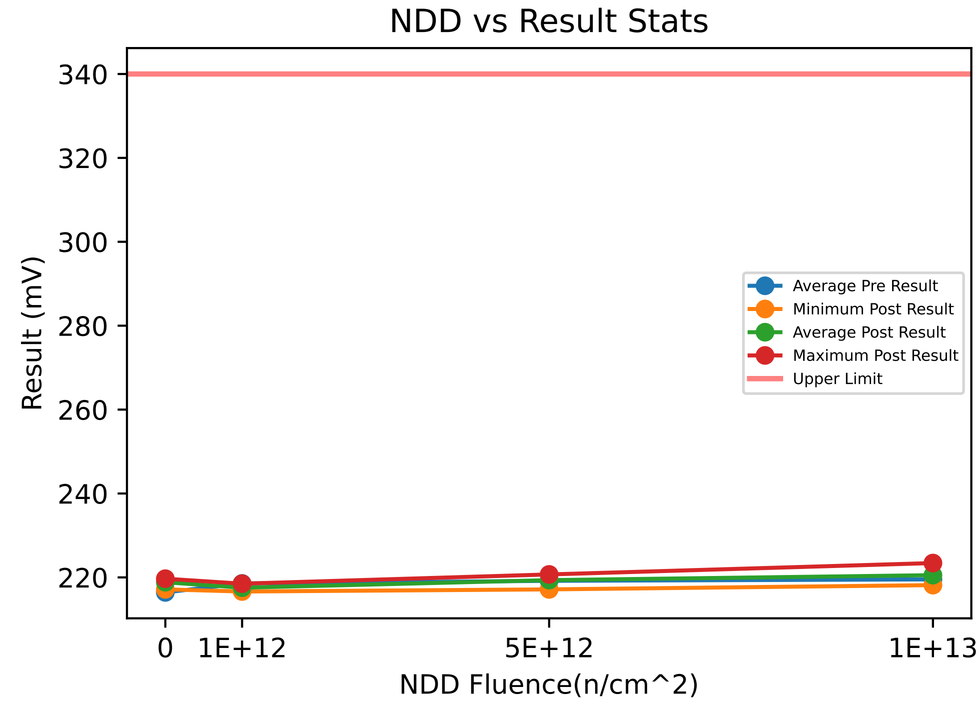
Test Results (Upper Limit = 180.0 (mV))

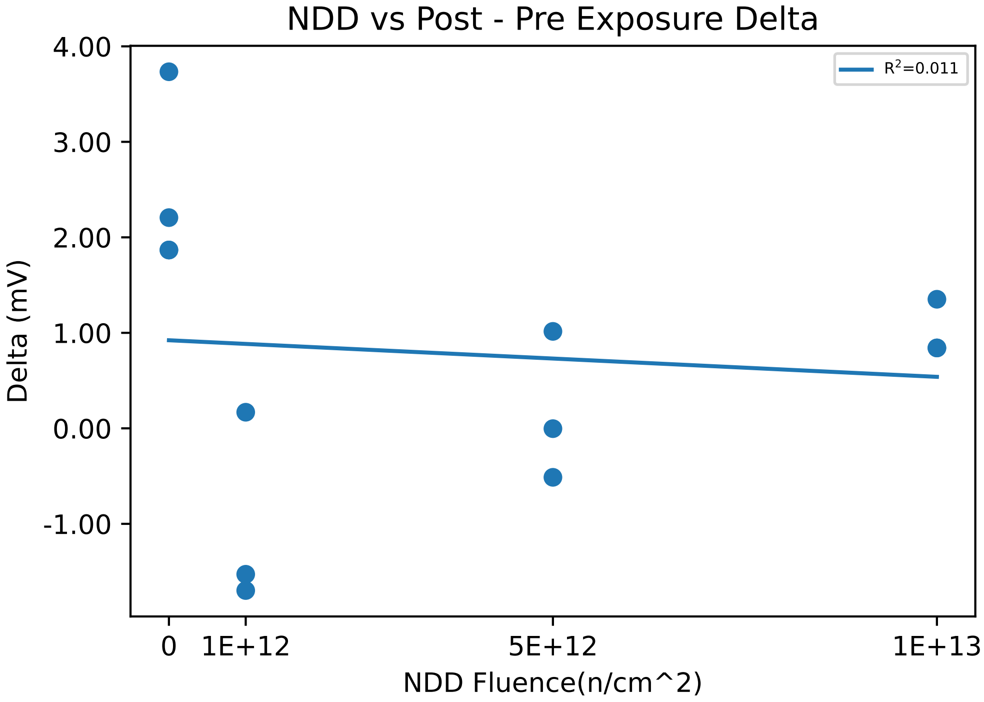
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	95.206	95.882	0.6761
65	1e+12	NDD unbiased	95.885	95.881	-0.0038
66	1e+12	NDD unbiased	97.243	97.919	0.6752
67	1e+13	NDD unbiased	97.929	96.546	-1.3828
68	1e+13	NDD unbiased	98.599	98.576	-0.022
70	1e+13	NDD unbiased	95.202	95.859	0.6571
71	5e+12	NDD unbiased	97.242	95.873	-1.3695
72	5e+12	NDD unbiased	98.6	96.555	-2.0456
73	5e+12	NDD unbiased	96.559	96.548	-0.0114
187	0	Correlation	97.241	97.241	0
188	0	Correlation	97.243	99.279	2.0361
189	0	Correlation	97.928	97.249	-0.679
190	0	Correlation	96.57	94.534	-2.0361

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	96.57	97.246	97.928	0.55442	94.534	97.076	99.279	1.9472	-2.0361	-0.16975	2.0361	1.6968
1e+12	95.206	96.112	97.243	1.0372	95.881	96.561	97.919	1.1758	-0.0038	0.44917	0.6761	0.39228
5e+12	96.559	97.467	98.6	1.0389	95.873	96.325	96.555	0.39178	-2.0456	-1.1422	-0.0114	1.036
1e+13	95.202	97.243	98.599	1.7989	95.859	96.994	98.576	1.4128	-1.3828	-0.24923	0.6571	1.0388

Device Test: 17.39 VDO_1A(VIN|DROPOUT/OUT//3//1000//@VDO_1A)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

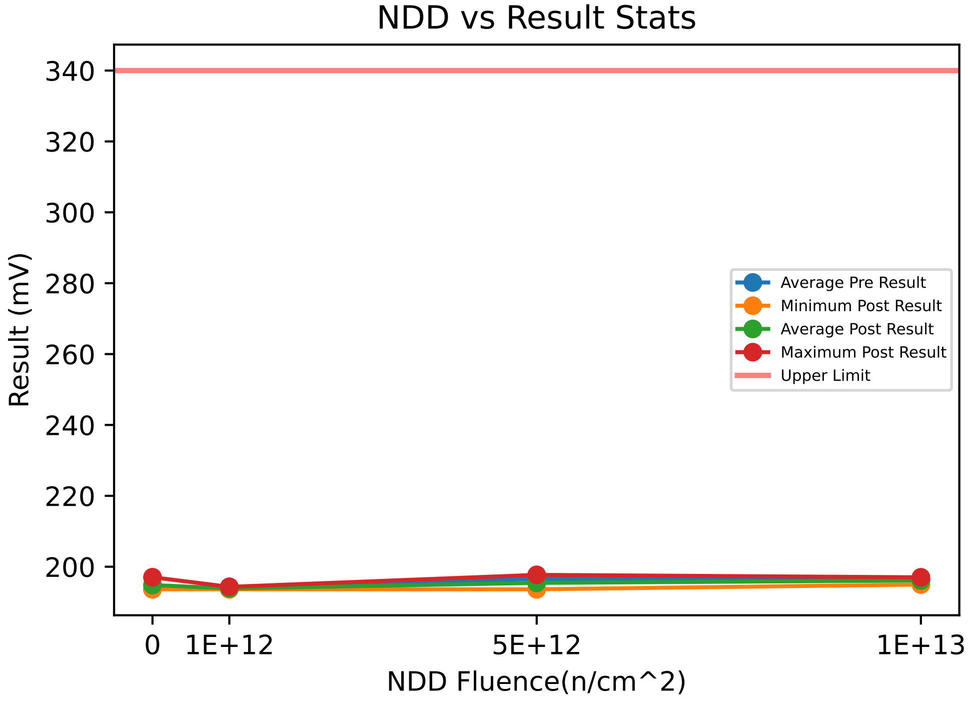
Test Results (Upper Limit = 340.0 (mV))

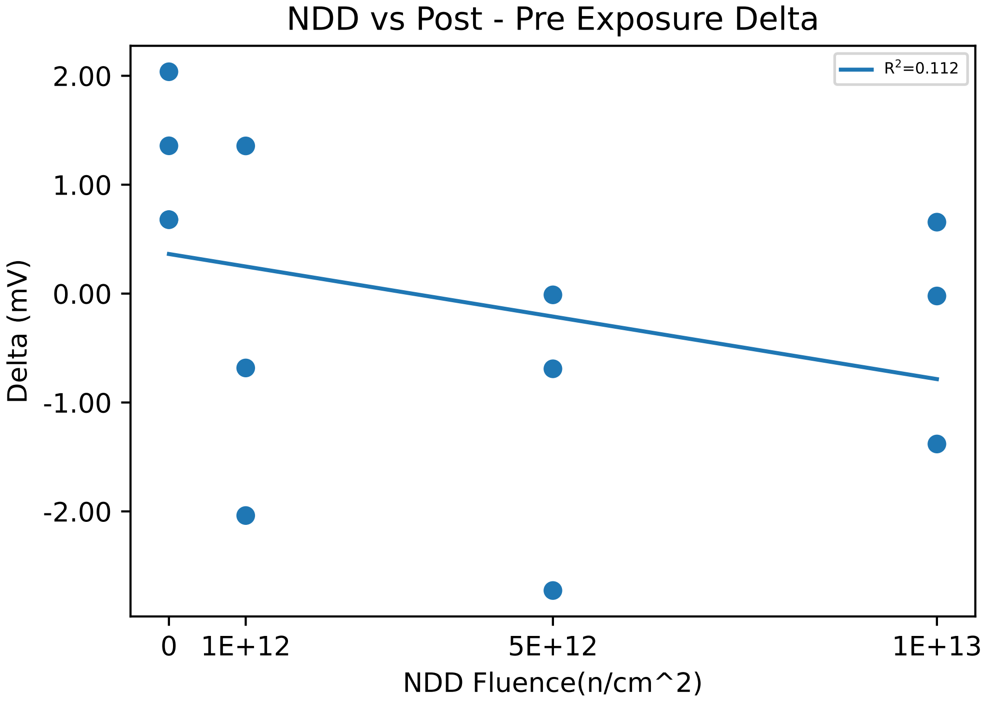
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	218.33	216.63	-1.6982
65	1e+12	NDD unbiased	219.01	217.48	-1.528
66	1e+12	NDD unbiased	218.33	218.5	0.1686
67	1e+13	NDD unbiased	216.81	218.16	1.3516
68	1e+13	NDD unbiased	222.58	223.42	0.8421
70	1e+13	NDD unbiased	219.18	220.02	0.8418
71	5e+12	NDD unbiased	220.71	220.2	-0.5129
72	5e+12	NDD unbiased	220.71	220.71	-0.0033
73	5e+12	NDD unbiased	216.13	217.14	1.0152
187	0	Correlation	215.62	219.35	3.7339
188	0	Correlation	217.48	219.69	2.2065
189	0	Correlation	215.28	217.15	1.8675
190	0	Correlation	217.32	219.18	1.8672

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	215.28	216.42	217.48	1.1374	217.15	218.84	219.69	1.1503	1.8672	2.4188	3.7339	0.89121
1e+12	218.33	218.56	219.01	0.39191	216.63	217.54	218.5	0.93467	-1.6982	-1.0192	0.1686	1.0322
5e+12	216.13	219.18	220.71	2.6464	217.14	219.35	220.71	1.9282	-0.5129	0.16633	1.0152	0.77804
1e+13	216.81	219.52	222.58	2.8997	218.16	220.53	223.42	2.6668	0.8418	1.0118	1.3516	0.29425

Device Test: 17.42 VDO_1A(VIN|DROPOUT/OUT//13.3//1000//@VDO_1A)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

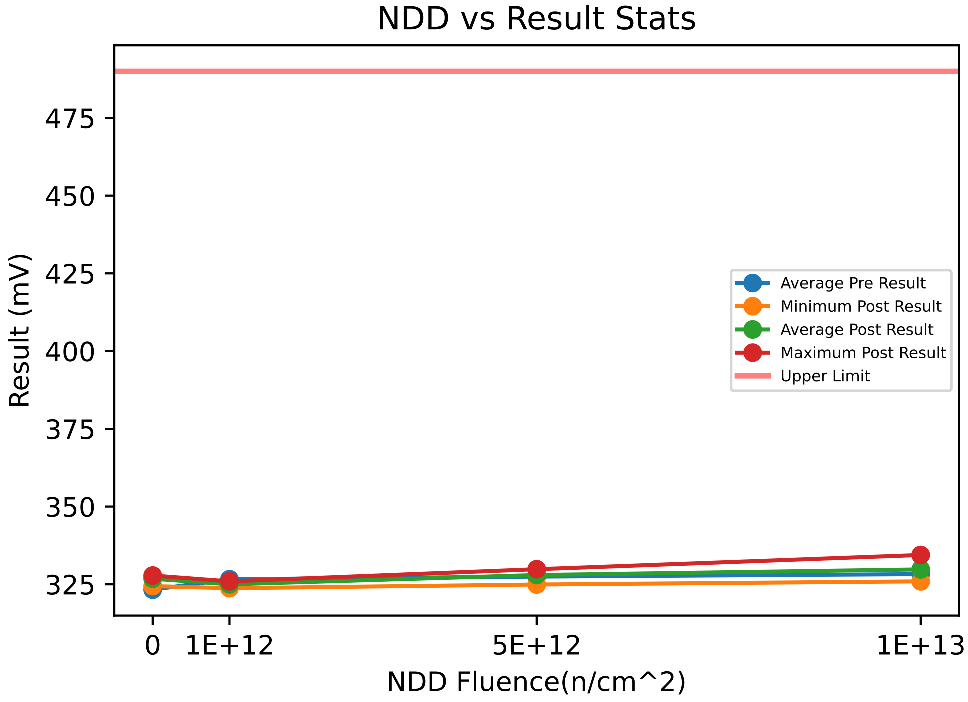
Test Results (Upper Limit = 340.0 (mV))

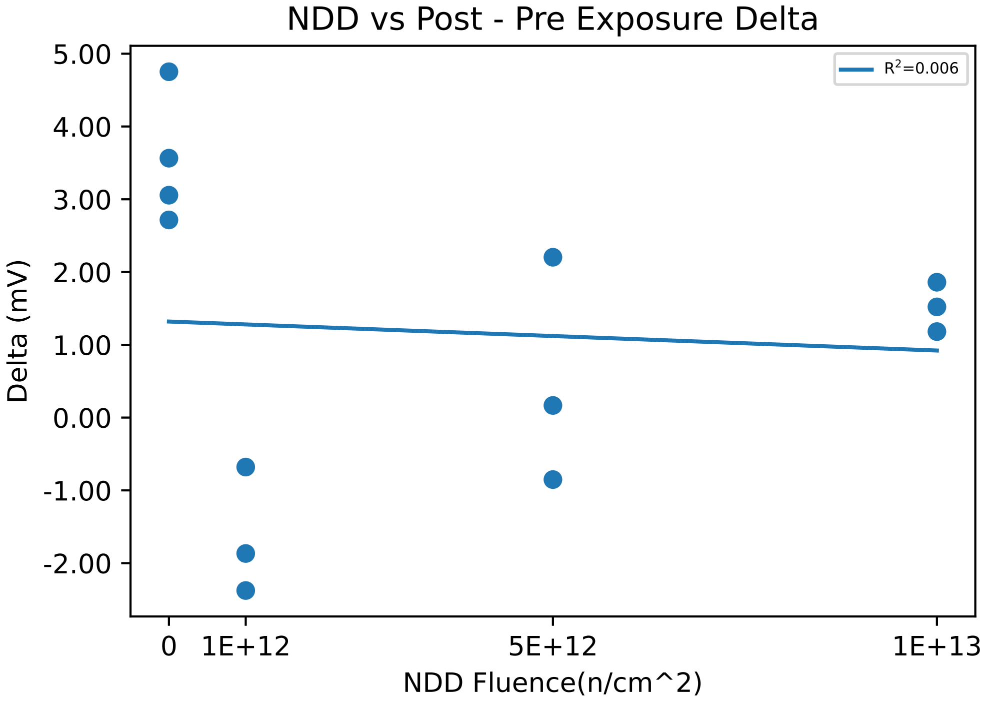
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	196.35	194.32	-2.038
65	1e+12	NDD unbiased	192.28	193.64	1.3561
66	1e+12	NDD unbiased	194.32	193.63	-0.6828
67	1e+13	NDD unbiased	195.68	196.34	0.6561
68	1e+13	NDD unbiased	198.39	197.01	-1.381
70	1e+13	NDD unbiased	194.99	194.97	-0.0219
71	5e+12	NDD unbiased	198.39	197.7	-0.6905
72	5e+12	NDD unbiased	197.71	194.99	-2.7265
73	5e+12	NDD unbiased	193.63	193.62	-0.0115
187	0	Correlation	192.96	193.64	0.679
188	0	Correlation	196.35	197.03	0.679
189	0	Correlation	192.97	195	2.0371
190	0	Correlation	192.29	193.64	1.3571

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	192.29	193.64	196.35	1.8363	193.64	194.83	197.03	1.6033	0.679	1.188	2.0371	0.65006
1e+12	192.28	194.32	196.35	2.0371	193.63	193.86	194.32	0.39286	-2.038	-0.4549	1.3561	1.7085
5e+12	193.63	196.58	198.39	2.5717	193.62	195.44	197.7	2.0746	-2.7265	-1.1428	-0.0115	1.4129
1e+13	194.99	196.35	198.39	1.7955	194.97	196.11	197.01	1.038	-1.381	-0.24893	0.6561	1.0374

Device Test: 17.45 VDO_1P5A(VIN|DROPOUT/OUT//3//1500//@VDO_1P5A)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

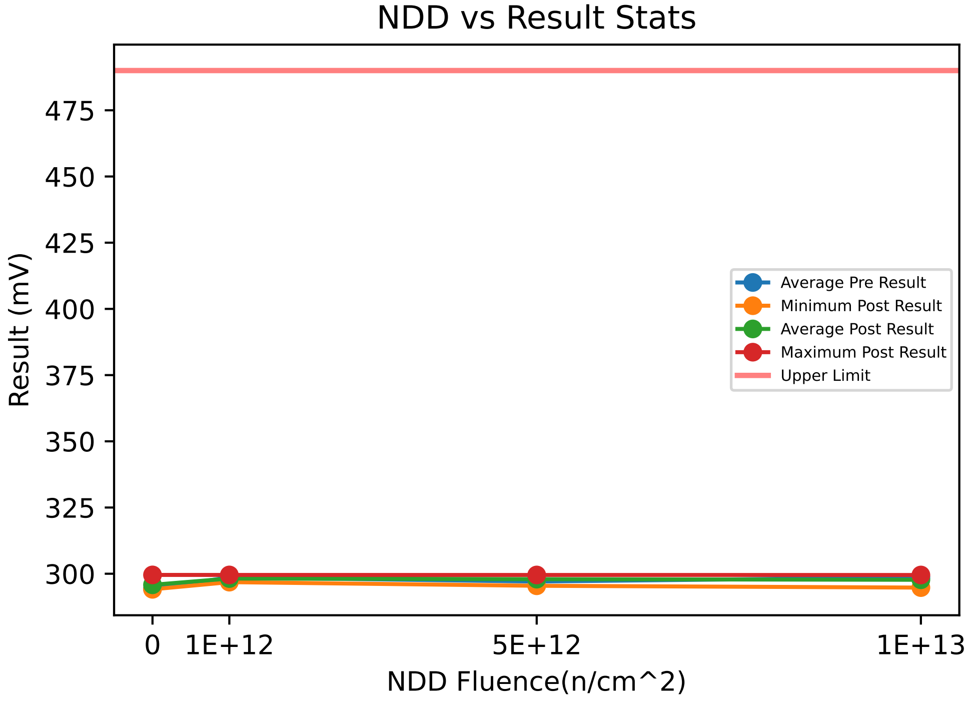
Test Results (Upper Limit = 490.0 (mV))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	326.12	323.74	-2.3761
65	1e+12	NDD unbiased	327.14	325.27	-1.8673
66	1e+12	NDD unbiased	326.63	325.95	-0.6799
67	1e+13	NDD unbiased	324.09	325.95	1.8599
68	1e+13	NDD unbiased	332.91	334.43	1.5212
70	1e+13	NDD unbiased	327.82	329	1.1818
71	5e+12	NDD unbiased	330.02	329.17	-0.8517
72	5e+12	NDD unbiased	329.68	329.85	0.1667
73	5e+12	NDD unbiased	322.72	324.93	2.2033
187	0	Correlation	322.73	327.48	4.752
188	0	Correlation	324.25	327.82	3.5646
189	0	Correlation	321.71	324.42	2.7158
190	0	Correlation	324.42	327.48	3.0558

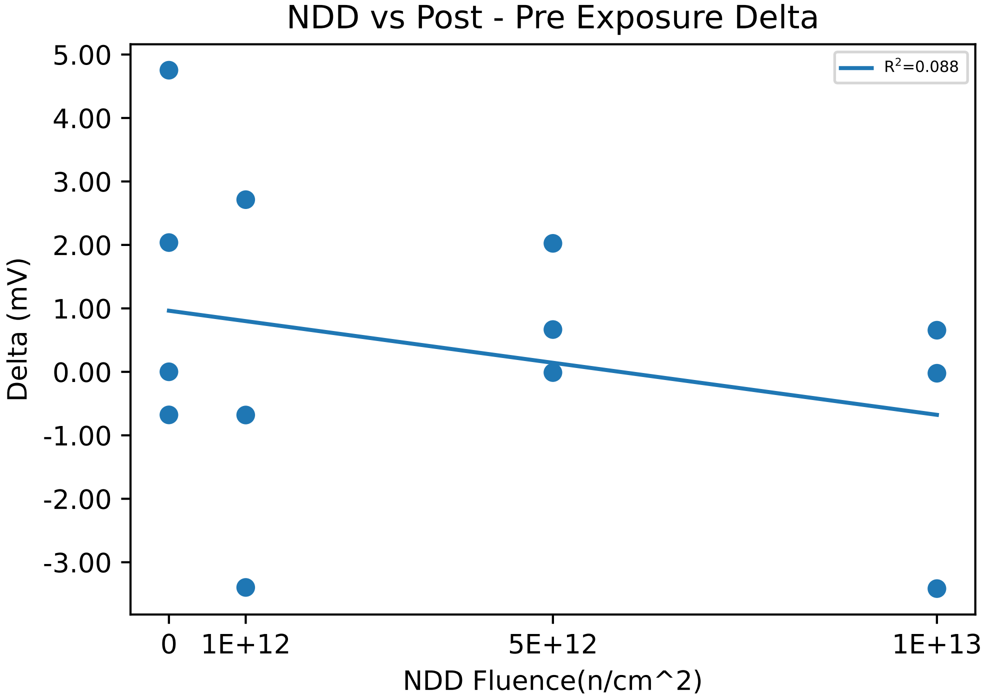
Test Statistics (mV)

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	321.71	323.28	324.42	1.295	324.42	326.8	327.82	1.5916	2.7158	3.522	4.752	0.89107
1e+12	326.12	326.63	327.14	0.50925	323.74	324.99	325.95	1.1301	-2.3761	-1.6411	-0.6799	0.87043
5e+12	322.72	327.48	330.02	4.12	324.93	327.98	329.85	2.6684	-0.8517	0.5061	2.2033	1.5555
1e+13	324.09	328.27	332.91	4.4294	325.95	329.79	334.43	4.2978	1.1818	1.521	1.8599	0.33905

Device Test: 17.48 VDO_1P5A(VIN|DROPOUT/OUT//13.3//1500//@VDO_1P5A)



NDD vs Result Stats



NDD vs Post - Pre Exposure Delta

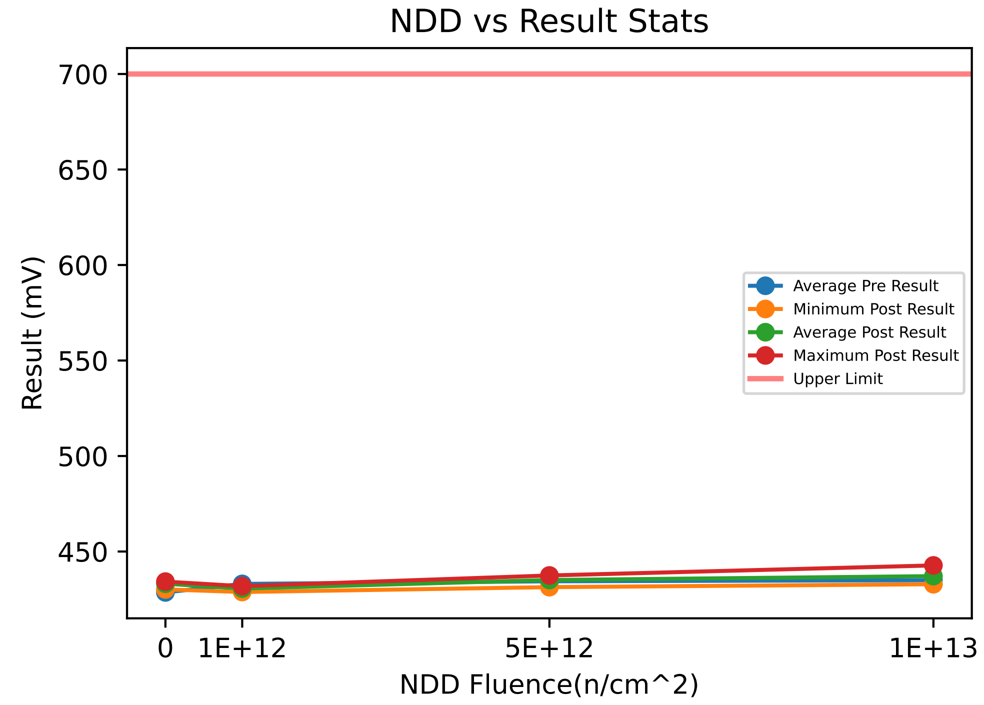
Test Results (Upper Limit = 490.0 (mV))

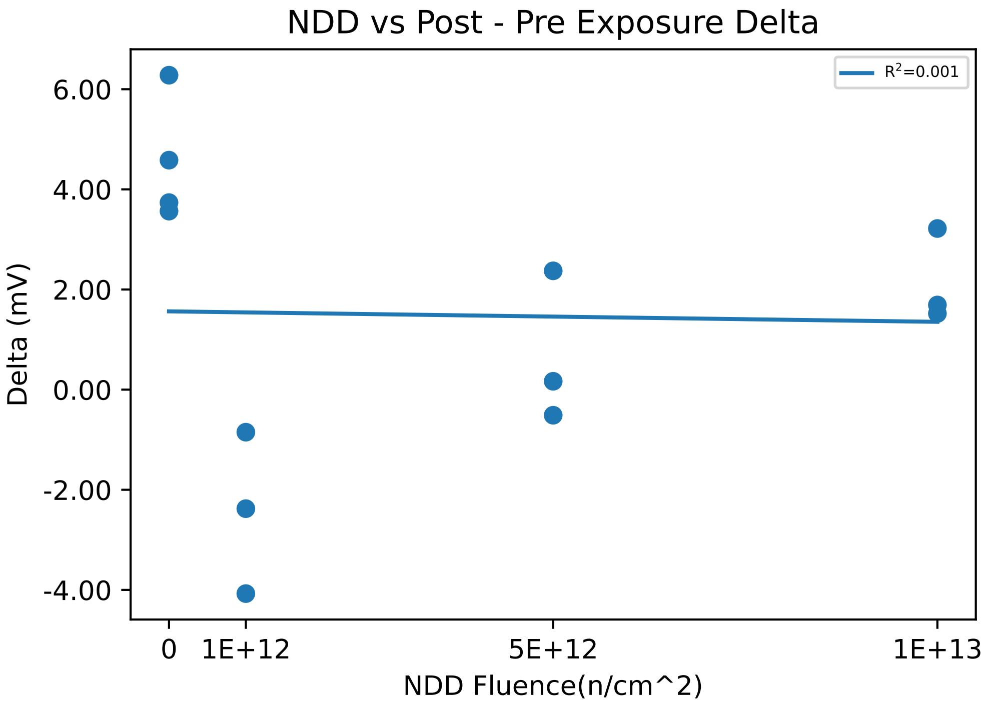
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	300.22	299.54	-0.6799
65	1e+12	NDD unbiased	300.22	296.82	-3.3969
66	1e+12	NDD unbiased	295.47	298.18	2.7132
67	1e+13	NDD unbiased	298.19	298.85	0.6561
68	1e+13	NDD unbiased	302.94	299.52	-3.4152
70	1e+13	NDD unbiased	294.79	294.77	-0.0219
71	5e+12	NDD unbiased	298.86	299.53	0.6666
72	5e+12	NDD unbiased	298.87	298.85	-0.0115
73	5e+12	NDD unbiased	293.43	295.46	2.0247
187	0	Correlation	292.76	294.79	2.0371
188	0	Correlation	294.79	294.11	-0.6781
189	0	Correlation	294.8	294.8	0.001
190	0	Correlation	294.8	299.55	4.7531

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	292.76	294.29	294.8	1.0205	294.11	295.81	299.55	2.5119	-0.6781	1.5283	4.7531	2.4399
1e+12	295.47	298.64	300.22	2.7431	296.82	298.18	299.54	1.3585	-3.3969	-0.45453	2.7132	3.0613
5e+12	293.43	297.05	298.87	3.1379	295.46	297.95	299.53	2.1844	-0.0115	0.89327	2.0247	1.0369
1e+13	294.79	298.64	302.94	4.0929	294.77	297.71	299.52	2.5738	-3.4152	-0.927	0.6561	2.1813

Device Test: 17.51 VDO_2A(VIN|DROPOUT/OUT//3//2000//@VDO_2A)





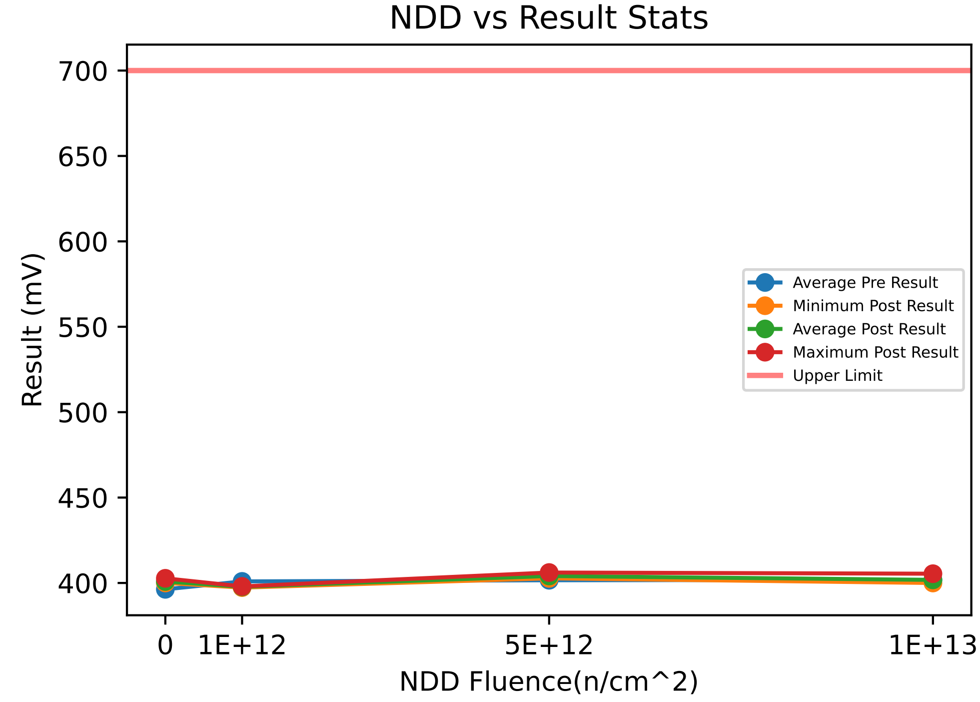
Test Results (Upper Limit = 700.0 (mV))

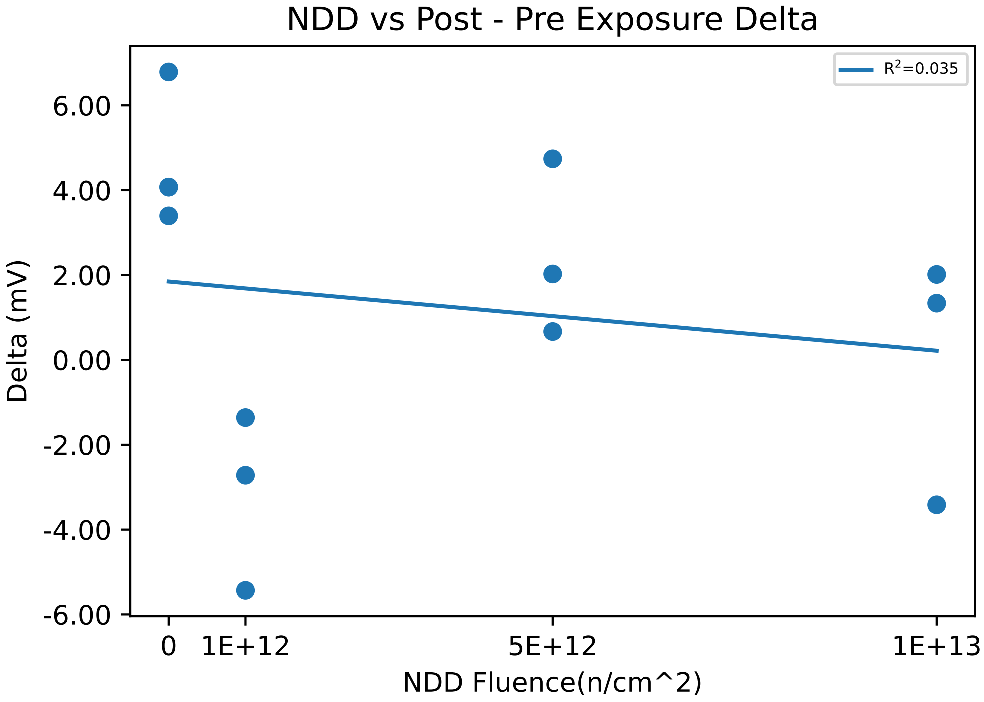
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	432.88	428.81	-4.0733
65	1e+12	NDD unbiased	433.56	431.18	-2.3771
66	1e+12	NDD unbiased	432.71	431.86	-0.8497
67	1e+13	NDD unbiased	429.66	432.88	3.2181
68	1e+13	NDD unbiased	441.03	442.72	1.6906
70	1e+13	NDD unbiased	434.24	435.76	1.5209
71	5e+12	NDD unbiased	436.96	436.44	-0.5114
72	5e+12	NDD unbiased	437.3	437.46	0.1669
73	5e+12	NDD unbiased	428.98	431.35	2.3725
187	0	Correlation	427.62	433.9	6.2797
188	0	Correlation	429.66	434.24	4.5831
189	0	Correlation	426.6	430.17	3.5651
190	0	Correlation	430.51	434.24	3.7351

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	426.6	428.6	430.51	1.7979	430.17	433.14	434.24	1.986	3.5651	4.5408	6.2797	1.2419
1e+12	432.71	433.05	433.56	0.44863	428.81	430.62	431.86	1.6041	-4.0733	-2.4334	-0.8497	1.6125
5e+12	428.98	434.41	437.3	4.7073	431.35	435.09	437.46	3.2748	-0.5114	0.676	2.3725	1.5078
1e+13	429.66	434.98	441.03	5.7206	432.88	437.12	442.72	5.0599	1.5209	2.1432	3.2181	0.93475

Device Test: 17.54 VDO_2A(VIN|DROPOUT/OUT//13.3//2000//@VDO_2A)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

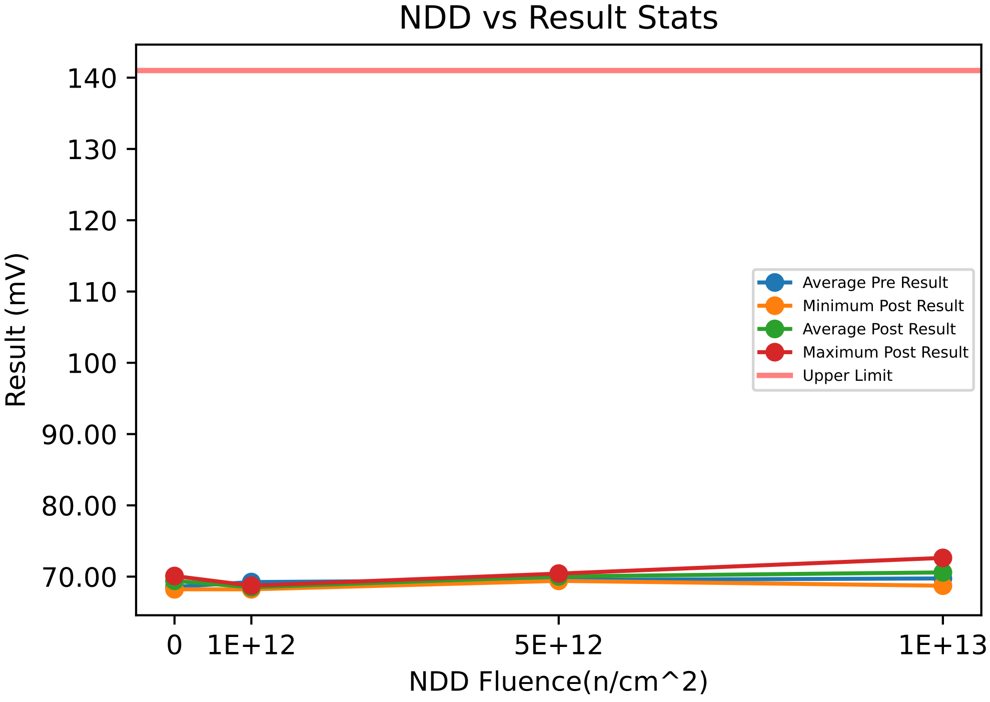
Test Results (Upper Limit = 700.0 (mV))

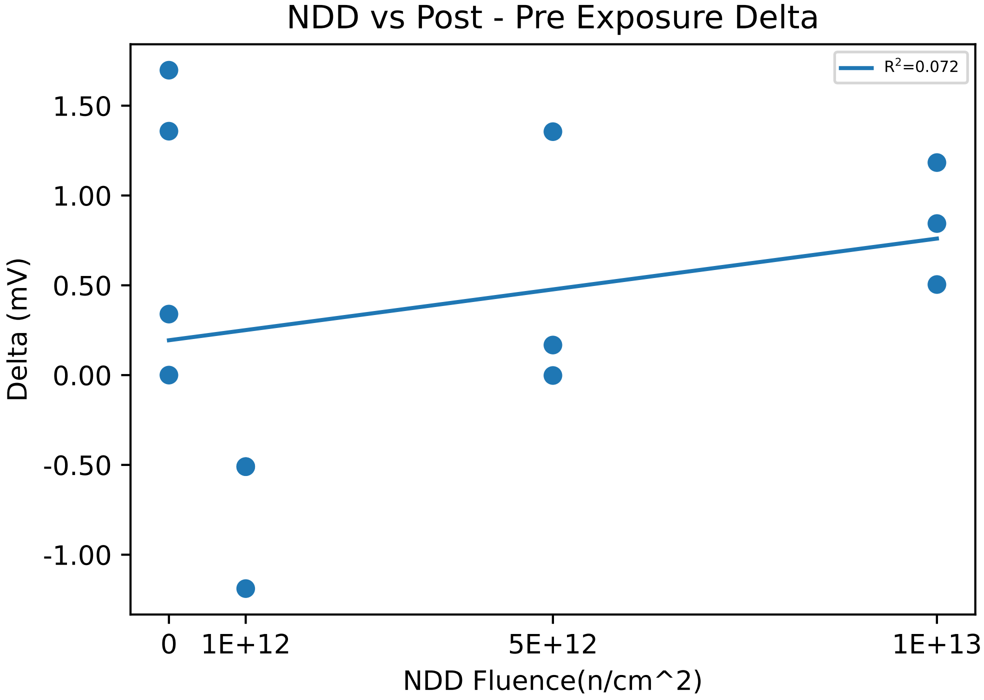
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	403.41	397.98	-5.4321
65	1e+12	NDD unbiased	400.01	397.3	-2.7189
66	1e+12	NDD unbiased	399.34	397.98	-1.3599
67	1e+13	NDD unbiased	397.99	400	2.0141
68	1e+13	NDD unbiased	408.84	405.42	-3.4151
70	1e+13	NDD unbiased	398.65	399.99	1.3371
71	5e+12	NDD unbiased	404.09	406.11	2.0256
72	5e+12	NDD unbiased	402.73	403.4	0.6685
73	5e+12	NDD unbiased	397.98	402.71	4.7397
187	0	Correlation	395.94	402.73	6.7873
188	0	Correlation	396.62	400.69	4.0722
189	0	Correlation	396.63	400.02	3.3951
190	0	Correlation	395.95	400.02	4.0741

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	395.94	396.28	396.63	0.39229	400.02	400.87	402.73	1.2817	3.3951	4.5822	6.7873	1.5044
1e+12	399.34	400.92	403.41	2.1818	397.3	397.75	397.98	0.39312	-5.4321	-3.1703	-1.3599	2.0733
5e+12	397.98	401.6	404.09	3.2099	402.71	404.08	406.11	1.7969	0.6685	2.4779	4.7397	2.0729
1e+13	397.99	401.83	408.84	6.0829	399.99	401.8	405.42	3.1346	-3.4151	-0.0213	2.0141	2.9585

Device Test: 17.6 VDO_250MA_LV(VIN|DROPOUT/OUT//2.25//250//@VDO_250MA_LV)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

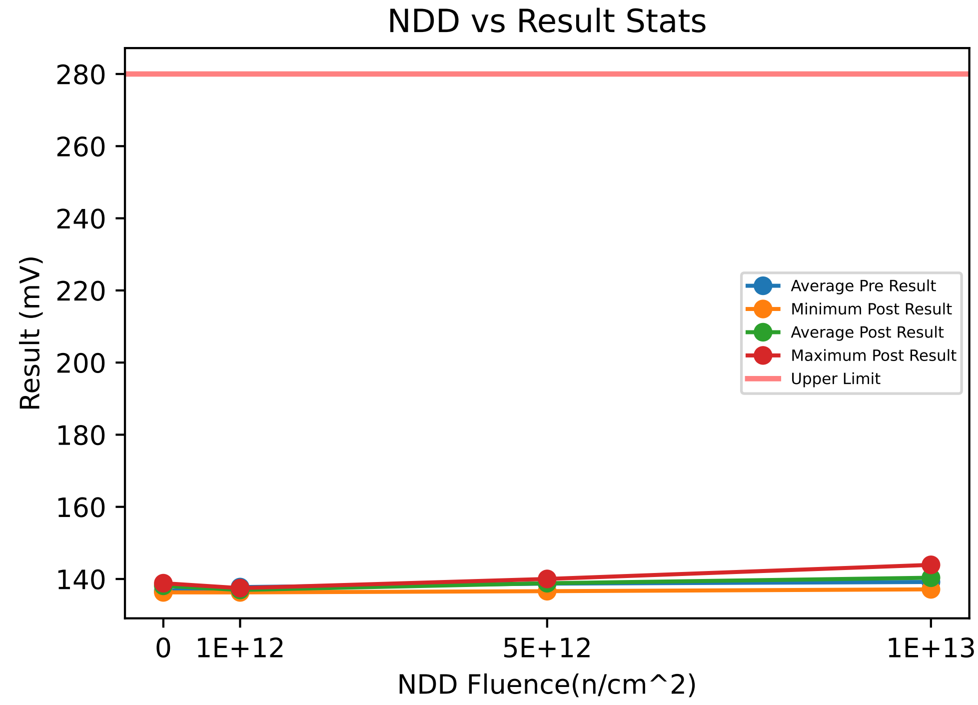
Test Results (Upper Limit = 141.0 (mV))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	69.41	68.221	-1.1887
65	1e+12	NDD unbiased	69.07	68.56	-0.5092
66	1e+12	NDD unbiased	69.24	68.73	-0.51
67	1e+13	NDD unbiased	68.223	68.727	0.5043
68	1e+13	NDD unbiased	71.446	72.629	1.1833
70	1e+13	NDD unbiased	69.579	70.422	0.8438
71	5e+12	NDD unbiased	70.428	70.425	-0.0022
72	5e+12	NDD unbiased	70.089	70.256	0.1674
73	5e+12	NDD unbiased	68.051	69.406	1.3554
187	0	Correlation	68.221	69.919	1.6976
188	0	Correlation	68.73	70.088	1.358
189	0	Correlation	67.883	68.223	0.3397
190	0	Correlation	69.411	69.411	0

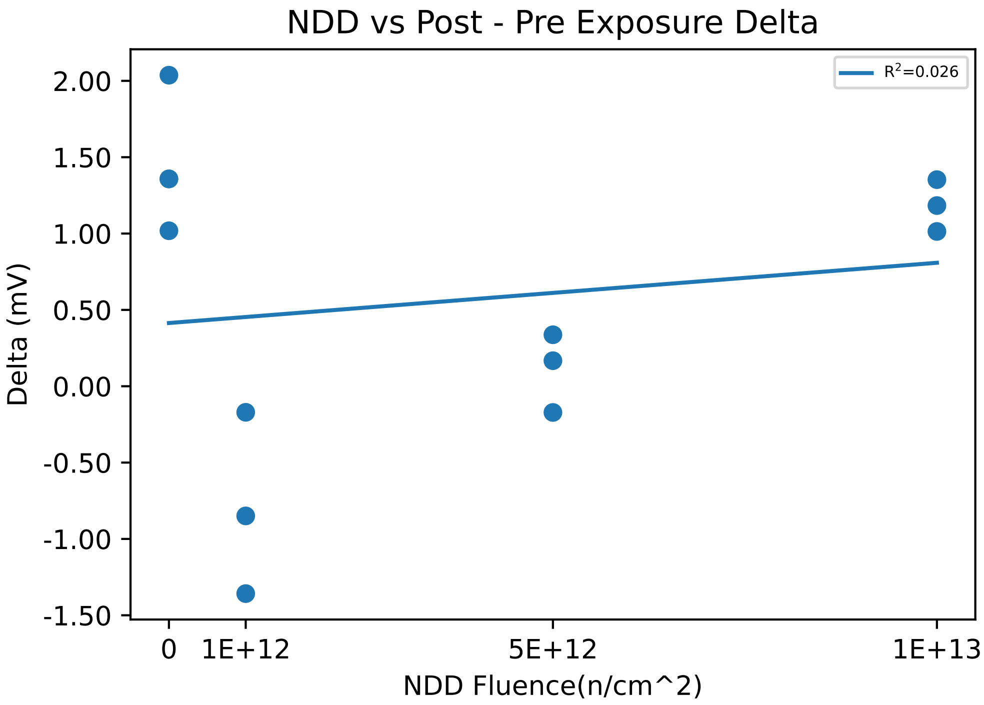
Test Statistics (mV)

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	67.883	68.561	69.411	0.66463	68.223	69.41	70.088	0.84225	0	0.84883	1.6976	0.80816
1e+12	69.07	69.24	69.41	0.17	68.221	68.504	68.73	0.25928	-1.1887	-0.73597	-0.5092	0.39208
5e+12	68.051	69.522	70.428	1.2856	69.406	70.029	70.425	0.54612	-0.0022	0.50687	1.3554	0.73973
1e+13	68.223	69.749	71.446	1.6184	68.727	70.593	72.629	1.9567	0.5043	0.8438	1.1833	0.3395

Device Test: 17.9 VDO_500MA_LV(VIN|DROPOUT/OUT//2.25//500//@VDO_500MA_LV)



NDD vs Result Stats



NDD vs Post - Pre Exposure Delta

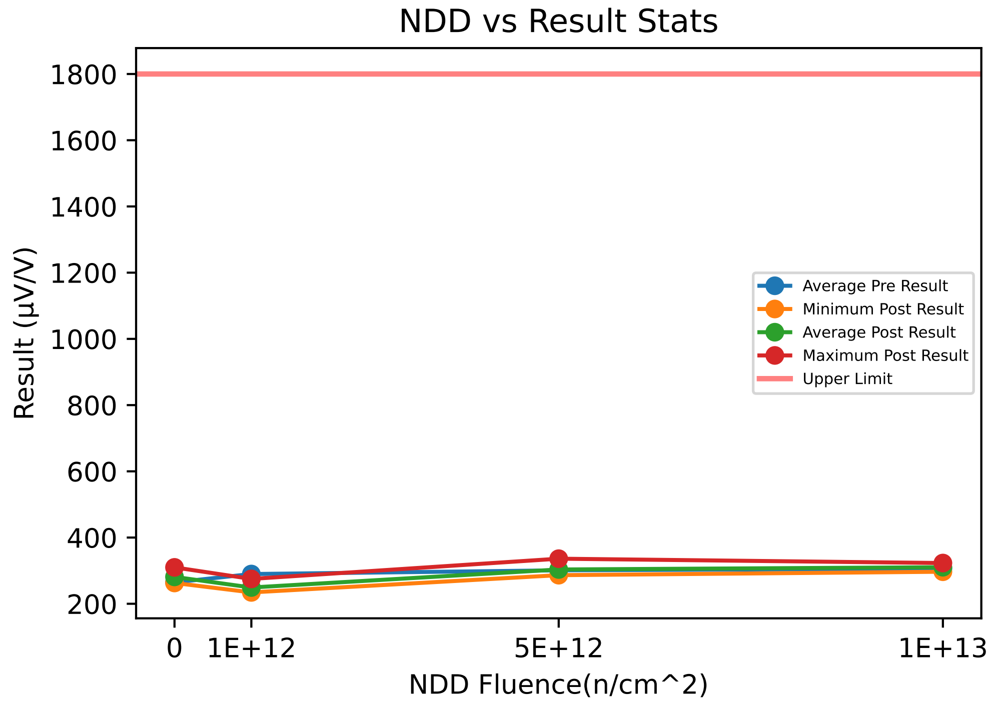
Test Results (Upper Limit = 280.0 (mV))

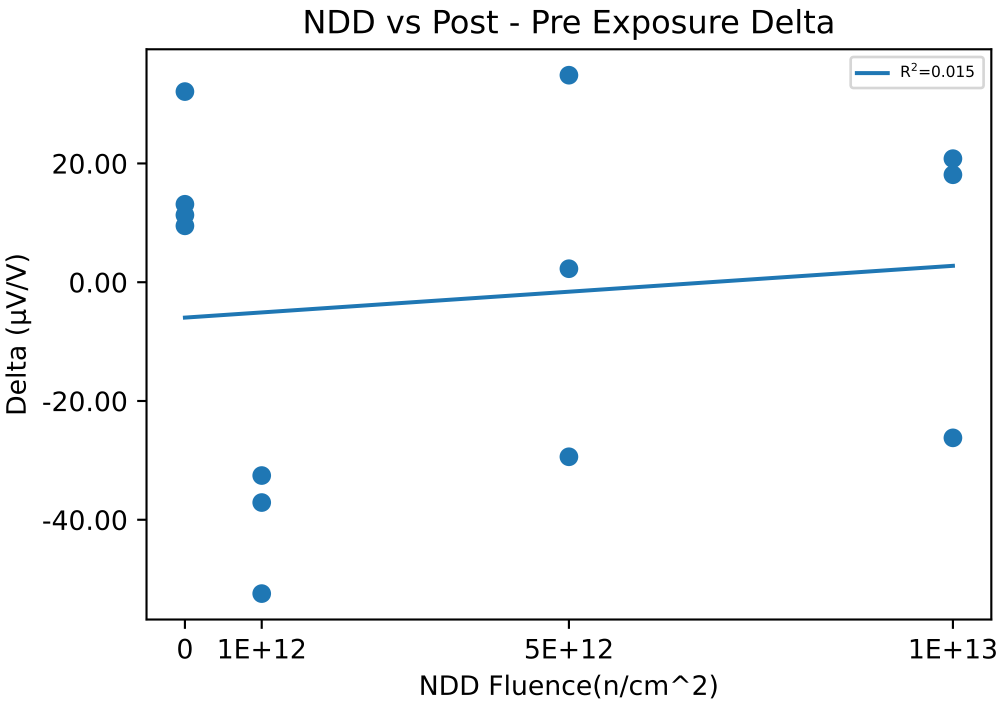
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	137.64	136.28	-1.358
65	1e+12	NDD unbiased	137.98	137.13	-0.8492
66	1e+12	NDD unbiased	137.64	137.47	-0.1707
67	1e+13	NDD unbiased	135.95	137.13	1.1833
68	1e+13	NDD unbiased	142.56	143.92	1.353
70	1e+13	NDD unbiased	139	140.01	1.0137
71	5e+12	NDD unbiased	139.68	140.02	0.3372
72	5e+12	NDD unbiased	140.02	139.85	-0.1717
73	5e+12	NDD unbiased	136.45	136.62	0.1673
187	0	Correlation	136.62	138.66	2.037
188	0	Correlation	137.3	138.66	1.358
189	0	Correlation	135.27	136.29	1.0183
190	0	Correlation	137.47	138.83	1.3578

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	135.27	136.67	137.47	1.0027	136.29	138.11	138.83	1.2187	1.0183	1.4428	2.037	0.42727
1e+12	137.64	137.76	137.98	0.19587	136.28	136.96	137.47	0.61179	-1.358	-0.79263	-0.1707	0.59567
5e+12	136.45	138.72	140.02	1.9677	136.62	138.83	140.02	1.9134	-0.1717	0.11093	0.3372	0.25909
1e+13	135.95	139.17	142.56	3.3122	137.13	140.35	143.92	3.4065	1.0137	1.1833	1.353	0.16965

Device Test: 18.4 LINE_REG_2p25(VIN|REGULATION/OUT/2.25/0.6//10//@LINE_REG_2p25)





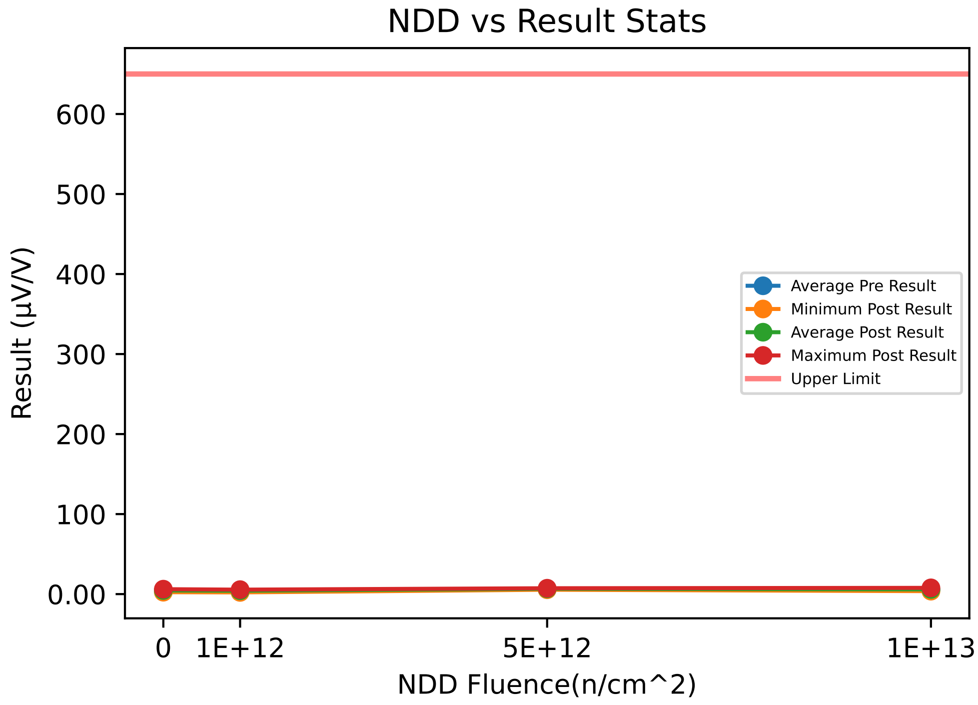
Test Results (Upper Limit = 1800.0 (µV/V))

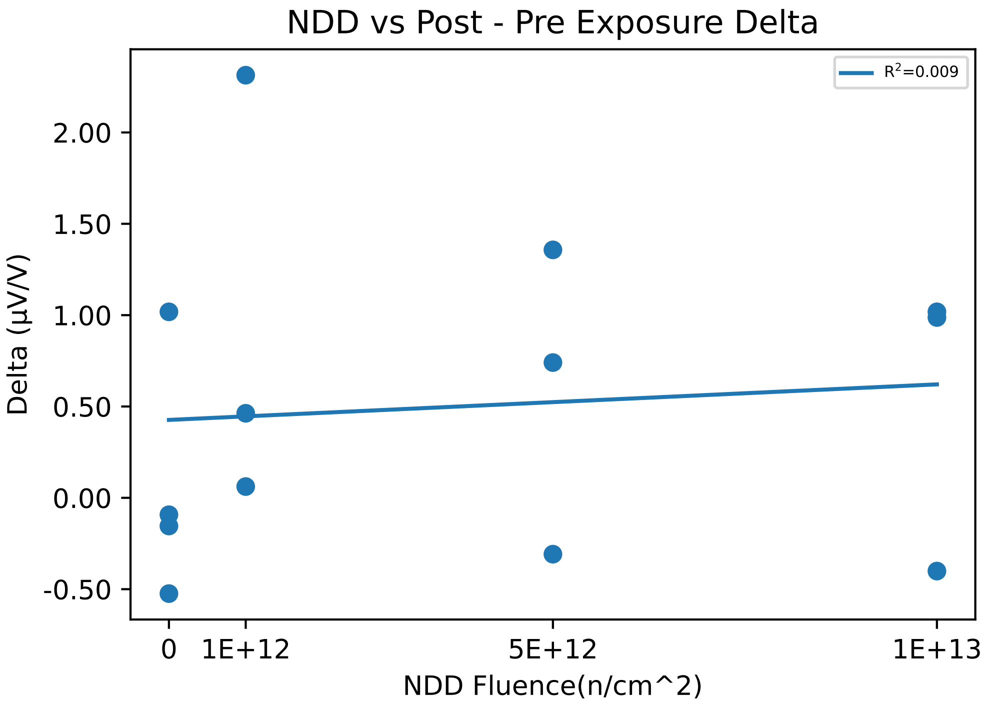
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	266.9	234.35	-32.552
65	1e+12	NDD unbiased	290.41	237.98	-52.433
66	1e+12	NDD unbiased	312.16	275.07	-37.1
67	1e+13	NDD unbiased	304.91	323	18.096
68	1e+13	NDD unbiased	337.48	311.27	-26.207
70	1e+13	NDD unbiased	275.96	296.77	20.808
71	5e+12	NDD unbiased	285.91	288.18	2.2737
72	5e+12	NDD unbiased	315.76	286.37	-29.393
73	5e+12	NDD unbiased	301.29	336.15	34.86
187	0	Correlation	298.59	309.9	11.311
188	0	Correlation	249.73	262.85	13.127
189	0	Correlation	237.08	269.18	32.102
190	0	Correlation	273.26	282.75	9.4956

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	237.08	264.66	298.59	27.133	262.85	281.17	309.9	20.872	9.4956	16.509	32.102	10.501
1e+12	266.9	289.83	312.16	22.639	234.35	249.13	275.07	22.533	-52.433	-40.695	-32.552	10.417
5e+12	285.91	300.98	315.76	14.929	286.37	303.57	336.15	28.232	-29.393	2.5803	34.86	32.128
1e+13	275.96	306.11	337.48	30.778	296.77	310.35	323	13.143	-26.207	4.2325	20.808	26.396

Device Test: 18.5 LINE_REG(VIN|REGULATION/OUT/14/0.6//10//@LINE_REG)





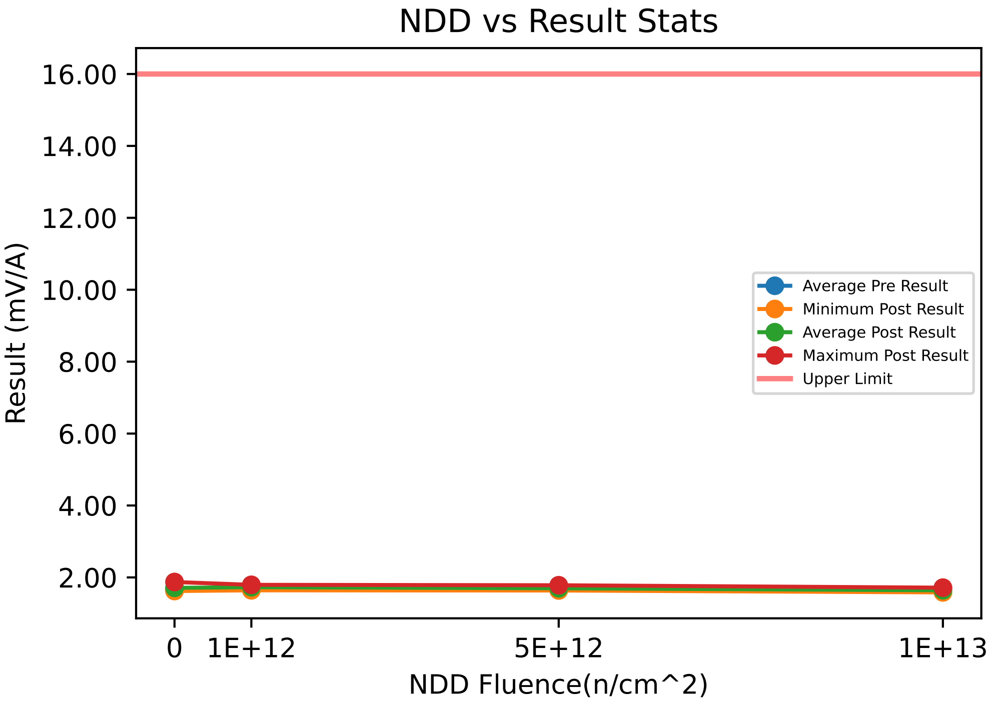
Test Results (Upper Limit = 650.0 (µV/V))

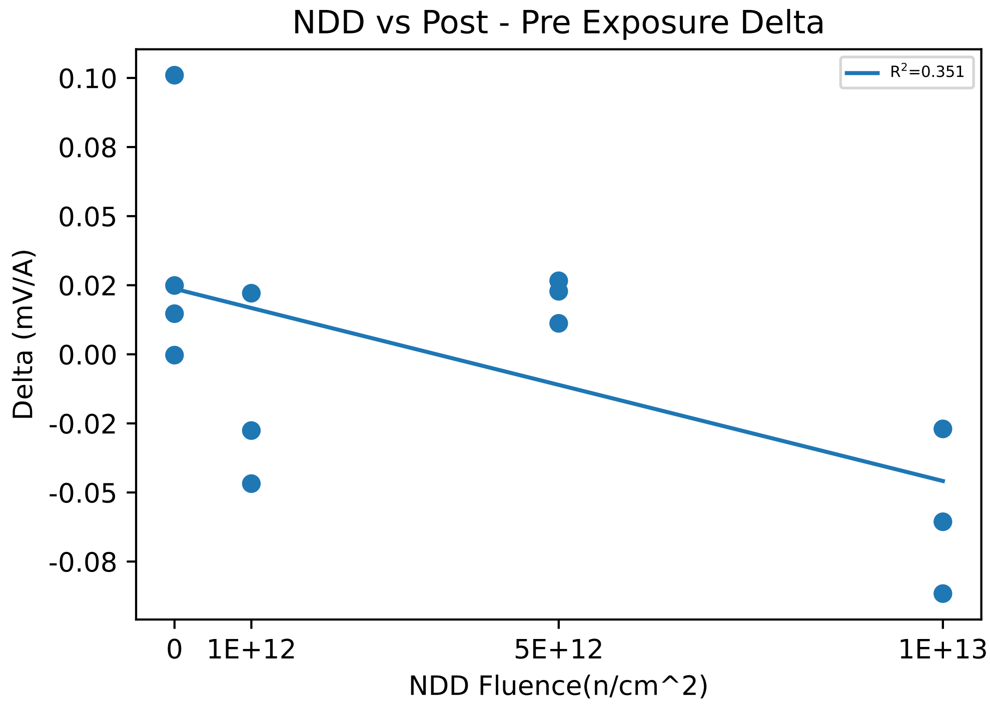
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	2.0666	2.1283	0.0617
65	1e+12	NDD unbiased	4.3183	4.7811	0.4628
66	1e+12	NDD unbiased	3.2697	5.5831	2.3134
67	1e+13	NDD unbiased	6.7859	7.8041	1.0182
68	1e+13	NDD unbiased	5.0895	6.0766	0.9871
70	1e+13	NDD unbiased	4.0716	3.6707	-0.4009
71	5e+12	NDD unbiased	5.7681	5.4597	-0.3084
72	5e+12	NDD unbiased	5.7989	7.1562	1.3573
73	5e+12	NDD unbiased	6.6009	7.3413	0.7404
187	0	Correlation	3.9481	4.9662	1.0181
188	0	Correlation	2.4676	2.3751	-0.0925
189	0	Correlation	5.0894	4.5652	-0.5242
190	0	Correlation	6.3232	6.1691	-0.1541

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	2.4676	4.4571	6.3232	1.6431	2.3751	4.5189	6.1691	1.5834	-0.5242	0.061825	1.0181	0.66541
1e+12	2.0666	3.2182	4.3183	1.1267	2.1283	4.1642	5.5831	1.8081	0.0617	0.94597	2.3134	1.2011
5e+12	5.7681	6.056	6.6009	0.47218	5.4597	6.6524	7.3413	1.037	-0.3084	0.59643	1.3573	0.84213
1e+13	4.0716	5.3157	6.7859	1.3712	3.6707	5.8505	7.8041	2.076	-0.4009	0.5348	1.0182	0.81049

Device Test: 19.5 LOAD_REG(VOUT|REGULATION/OUT/5/3.3////@LOAD_REG)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

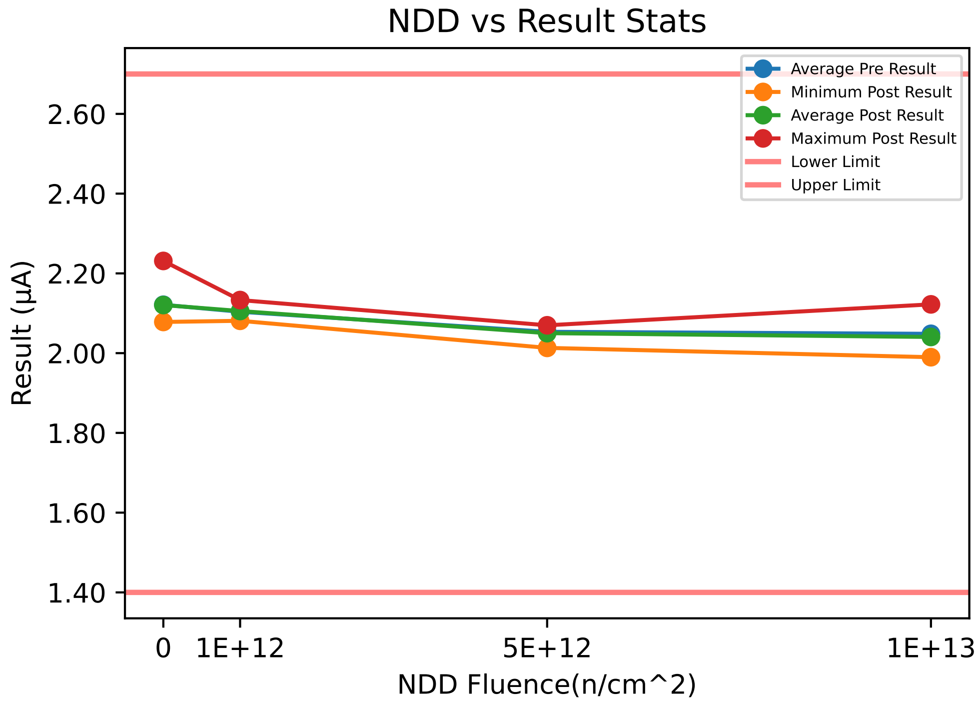
Test Results (Upper Limit = 16.0 (mV/A))

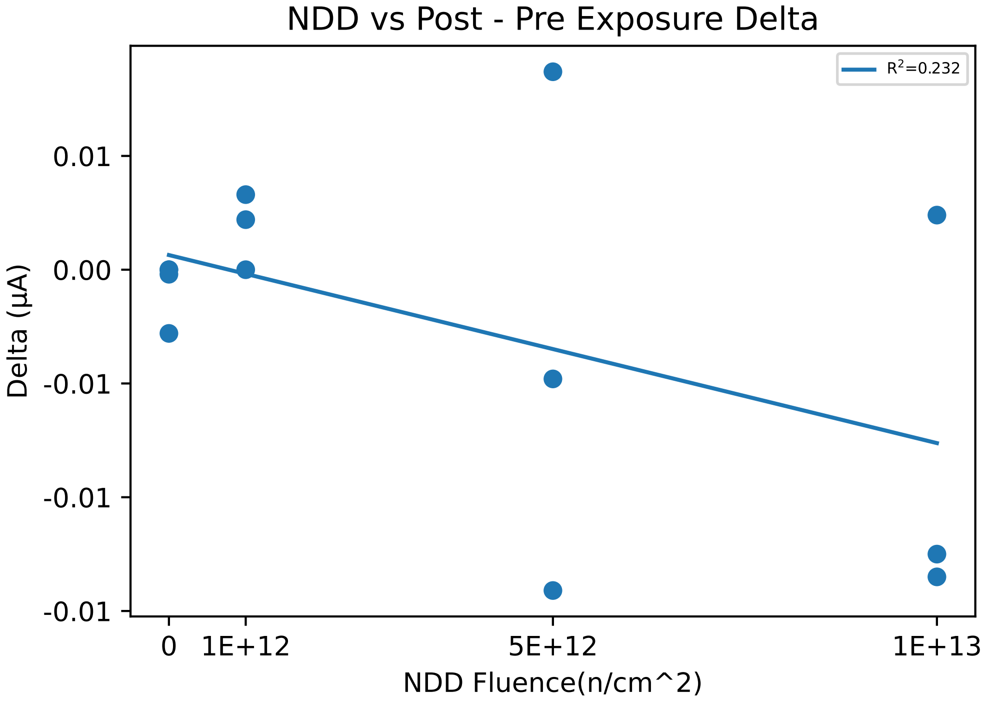
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	1.7714	1.7935	0.0221
65	1e+12	NDD unbiased	1.7775	1.7499	-0.0276
66	1e+12	NDD unbiased	1.6875	1.6407	-0.0468
67	1e+13	NDD unbiased	1.7151	1.6285	-0.0866
68	1e+13	NDD unbiased	1.6101	1.5831	-0.027
70	1e+13	NDD unbiased	1.7752	1.7146	-0.0606
71	5e+12	NDD unbiased	1.6482	1.6748	0.0266
72	5e+12	NDD unbiased	1.6249	1.6361	0.0112
73	5e+12	NDD unbiased	1.7589	1.7817	0.0228
187	0	Correlation	1.5964	1.6213	0.0249
188	0	Correlation	1.6542	1.6689	0.0147
189	0	Correlation	1.6753	1.675	-0.0003
190	0	Correlation	1.7711	1.8721	0.101

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	1.5964	1.6743	1.7711	0.072672	1.6213	1.7093	1.8721	0.11114	-0.0003	0.035075	0.101	0.045152
1e+12	1.6875	1.7455	1.7775	0.050293	1.6407	1.728	1.7935	0.078712	-0.0468	-0.017433	0.0221	0.035557
5e+12	1.6249	1.6773	1.7589	0.071593	1.6361	1.6975	1.7817	0.075415	0.0112	0.0202	0.0266	0.0080225
1e+13	1.6101	1.7001	1.7752	0.083561	1.5831	1.6421	1.7146	0.066791	-0.0866	-0.058067	-0.027	0.029881

Device Test: 20.1 I_SS(TIMING|CURRENT/SS/2.25/0.6//10//@I_SS)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

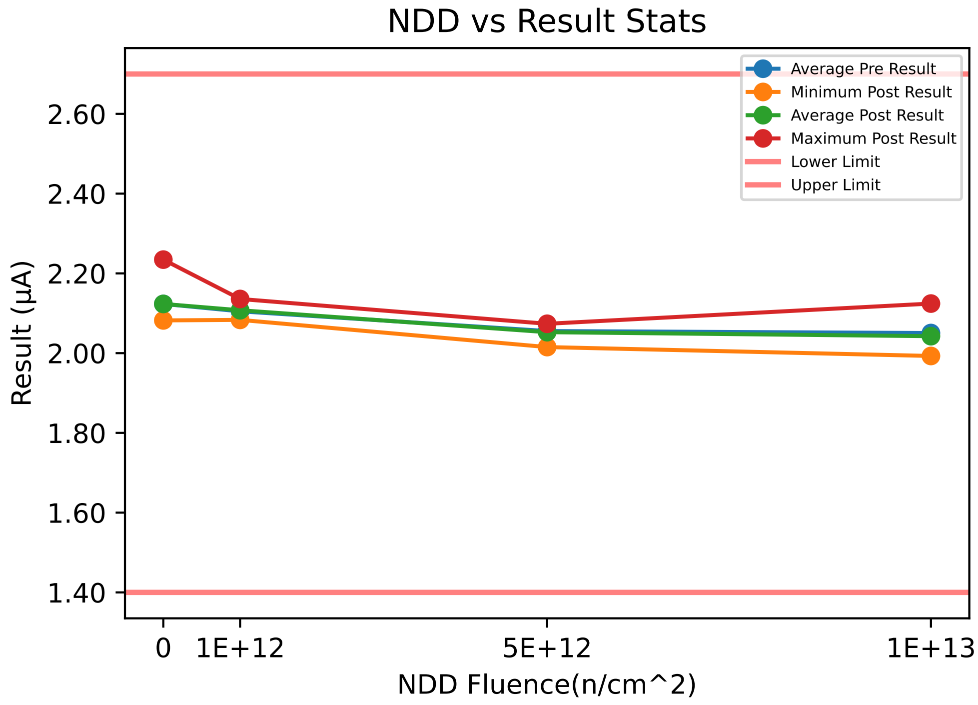
Test Results (Lower Limit = 1.4, Upper Limit = 2.7 (µA))

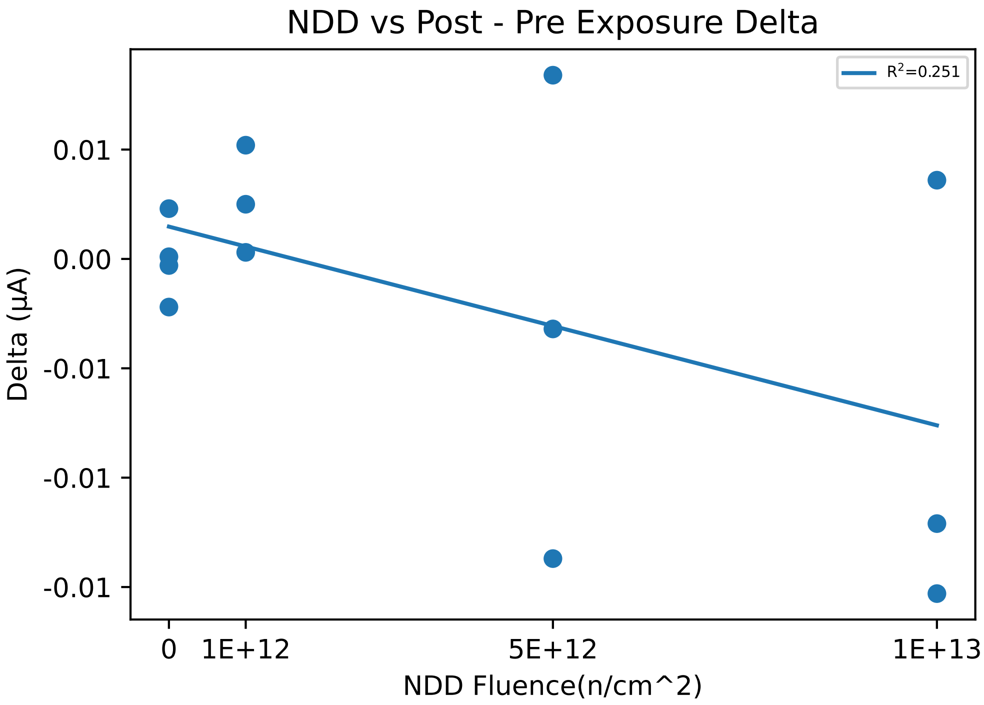
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	2.1298	2.1331	0.0033
65	1e+12	NDD unbiased	2.0811	2.0811	0
66	1e+12	NDD unbiased	2.1004	2.1026	0.0022
67	1e+13	NDD unbiased	2.0231	2.0096	-0.0135
68	1e+13	NDD unbiased	1.9874	1.9898	0.0024
70	1e+13	NDD unbiased	2.1348	2.1223	-0.0125
71	5e+12	NDD unbiased	2.0746	2.0698	-0.0048
72	5e+12	NDD unbiased	2.0814	2.0673	-0.0141
73	5e+12	NDD unbiased	2.0045	2.0132	0.0087
187	0	Correlation	2.0782	2.0782	0
188	0	Correlation	2.0923	2.0923	0
189	0	Correlation	2.0808	2.0806	-0.0002
190	0	Correlation	2.234	2.2312	-0.0028

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	2.0782	2.1213	2.234	0.075366	2.0782	2.1206	2.2312	0.074007	-0.0028	-0.00075	0	0.0013699
1e+12	2.0811	2.1038	2.1298	0.024524	2.0811	2.1056	2.1331	0.026129	0	0.0018333	0.0033	0.0016803
5e+12	2.0045	2.0535	2.0814	0.042571	2.0132	2.0501	2.0698	0.031981	-0.0141	-0.0034	0.0087	0.011464
1e+13	1.9874	2.0484	2.1348	0.076896	1.9898	2.0406	2.1223	0.071472	-0.0135	-0.0078667	0.0024	0.0089052

Device Test: 20.2 I_SS(TIMING|CURRENT/SS/14/13.3//10//@I_SS)


NDD vs Result Stats


NDD vs Post - Pre Exposure Delta

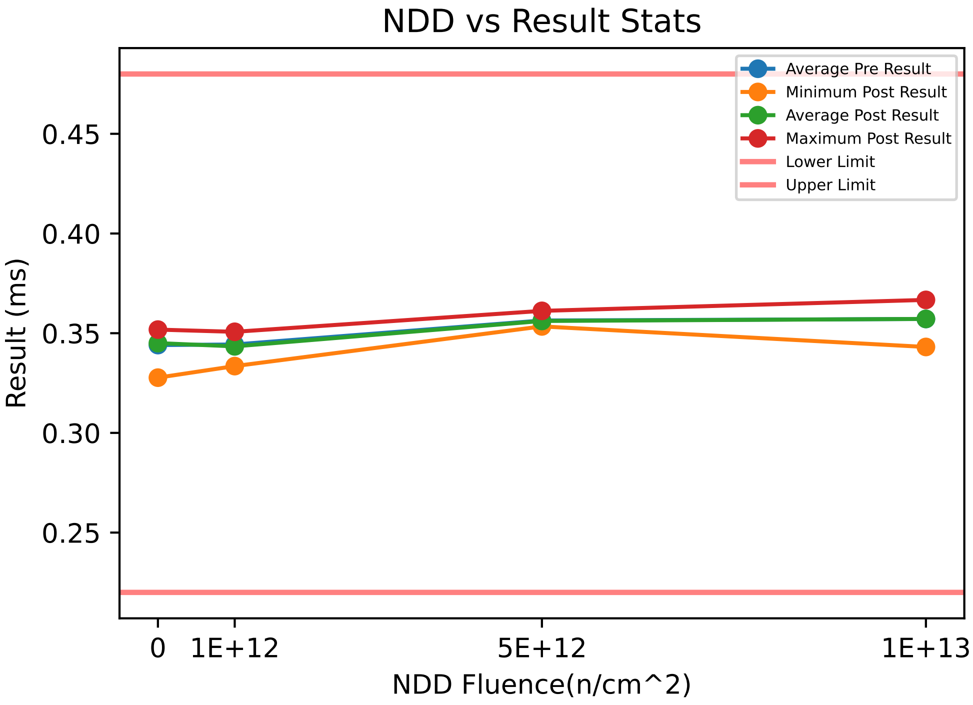
Test Results (Lower Limit = 1.4, Upper Limit = 2.7 (µA))

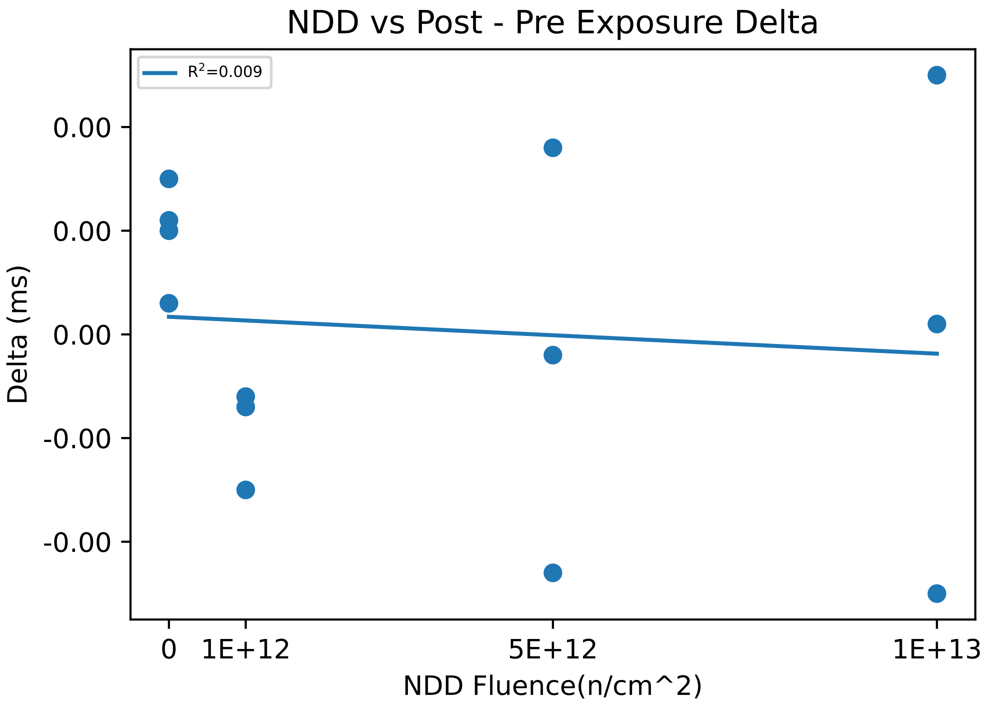
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	2.1306	2.1358	0.0052
65	1e+12	NDD unbiased	2.0831	2.0834	0.0003
66	1e+12	NDD unbiased	2.1009	2.1034	0.0025
67	1e+13	NDD unbiased	2.0256	2.0103	-0.0153
68	1e+13	NDD unbiased	1.9893	1.9929	0.0036
70	1e+13	NDD unbiased	2.1364	2.1243	-0.0121
71	5e+12	NDD unbiased	2.0768	2.0736	-0.0032
72	5e+12	NDD unbiased	2.0826	2.0689	-0.0137
73	5e+12	NDD unbiased	2.0068	2.0152	0.0084
187	0	Correlation	2.0798	2.0821	0.0023
188	0	Correlation	2.0941	2.0938	-0.0003
189	0	Correlation	2.0829	2.083	0.0001
190	0	Correlation	2.2367	2.2345	-0.0022

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	2.0798	2.1234	2.2367	0.075799	2.0821	2.1234	2.2345	0.07429	-0.0022	-2.5e-05	0.0023	0.0018464
1e+12	2.0831	2.1049	2.1306	0.023997	2.0834	2.1075	2.1358	0.026443	0.0003	0.0026667	0.0052	0.0024542
5e+12	2.0068	2.0554	2.0826	0.042189	2.0152	2.0526	2.0736	0.032446	-0.0137	-0.0028333	0.0084	0.011055
1e+13	1.9893	2.0504	2.1364	0.07663	1.9929	2.0425	2.1243	0.071373	-0.0153	-0.0079333	0.0036	0.010115

Device Test: 20.3 TSS_1NF(LEVEL|TIMING/SS/5/3.3//10//@TSS_1NF)





Test Results (Lower Limit = 0.22, Upper Limit = 0.48 (ms))

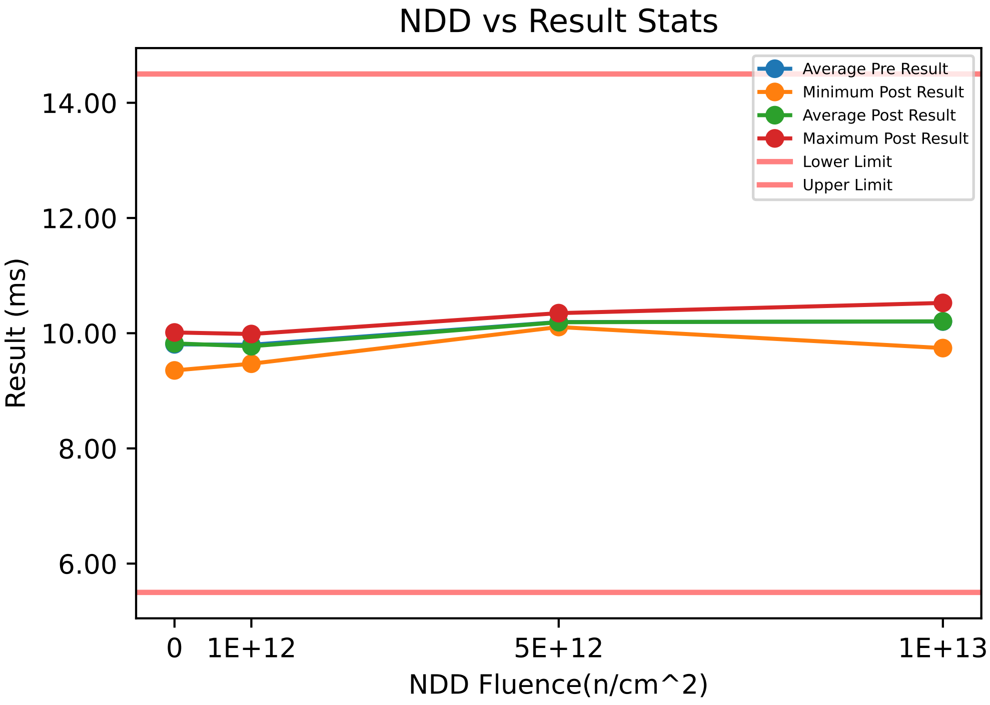
Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	0.3341	0.3335	-0.0006
65	1e+12	NDD unbiased	0.3514	0.3507	-0.0007
66	1e+12	NDD unbiased	0.3475	0.346	-0.0015
67	1e+13	NDD unbiased	0.3592	0.3617	0.0025
68	1e+13	NDD unbiased	0.3692	0.3667	-0.0025
70	1e+13	NDD unbiased	0.343	0.3431	0.0001
71	5e+12	NDD unbiased	0.354	0.3538	-0.0002
72	5e+12	NDD unbiased	0.3516	0.3534	0.0018
73	5e+12	NDD unbiased	0.3635	0.3612	-0.0023
187	0	Correlation	0.3507	0.3518	0.0011
188	0	Correlation	0.3488	0.3491	0.0003
189	0	Correlation	0.3505	0.3515	0.001
190	0	Correlation	0.3262	0.3277	0.0015

Test Statistics (ms)

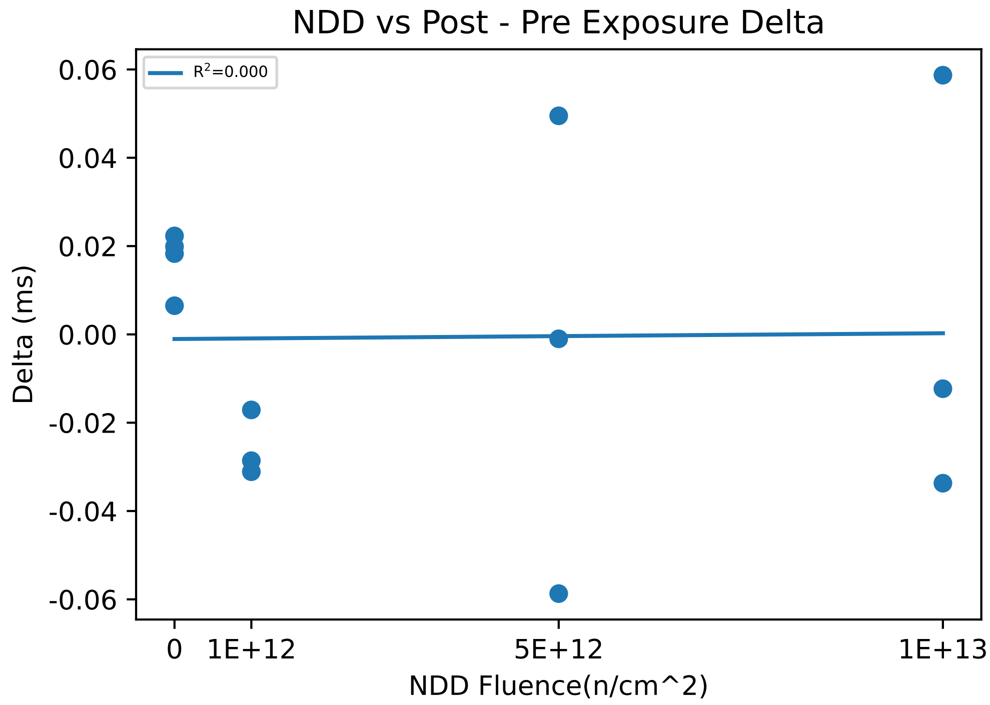
Fluence(n/cm^2)	Pre Exposure Min	Pre Exposure Avg	Pre Exposure Max	Pre Exposure Std	Post Exposure Min	Post Exposure Avg	Post Exposure Max	Post Exposure Std	Min Delta	Avg Delta	Max Delta	Std Delta
0	0.3262	0.34405	0.3507	0.01193	0.3277	0.34502	0.3518	0.011613	0.0003	0.000975	0.0015	0.00049917
1e+12	0.3341	0.34433	0.3514	0.0090743	0.3335	0.3434	0.3507	0.0088899	-0.0015	-0.00093333	-0.0006	0.00049329
5e+12	0.3516	0.35637	0.3635	0.0062931	0.3534	0.35613	0.3612	0.0043924	-0.0023	-0.00023333	0.0018	0.0020502
1e+13	0.343	0.35713	0.3692	0.013222	0.3431	0.35717	0.3667	0.012436	-0.0025	3.3333e-05	0.0025	0.0025007

Device Test: 20.4 TSS_33NF(LEVEL|TIMING/SS/5/3.3//10//@TSS_33NF)

NDD vs Result Stats



NDD vs Post - Pre Exposure Delta



Test Results (Lower Limit = 5.5, Upper Limit = 14.5 (ms))

Serial #	Fluence(n/cm^2)	Exposure Conditions	Pre Result	Post Result	Delta
64	1e+12	NDD unbiased	9.4986	9.47	-0.0286
65	1e+12	NDD unbiased	10.003	9.9857	-0.0171
66	1e+12	NDD unbiased	9.8955	9.8644	-0.0311
67	1e+13	NDD unbiased	10.293	10.352	0.0587
68	1e+13	NDD unbiased	10.559	10.526	-0.0337
70	1e+13	NDD unbiased	9.7539	9.7416	-0.0123
71	5e+12	NDD unbiased	10.117	10.116	-0.001
72	5e+12	NDD unbiased	10.058	10.107	0.0495
73	5e+12	NDD unbiased	10.407	10.348	-0.0587
187	0	Correlation	9.9945	10.013	0.0183
188	0	Correlation	9.9008	9.9207	0.0199
189	0	Correlation	9.9992	10.006	0.0065
190	0	Correlation	9.3315	9.3538	0.0223

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	9.3315	9.8065	9.9992	0.31989	9.3538	9.8232	10.013	0.31575	0.0065	0.01675	0.0223	0.0070283
1e+12	9.4986	9.799	10.003	0.2656	9.47	9.7734	9.9857	0.26963	-0.0311	-0.0256	-0.0171	0.0074666
5e+12	10.058	10.194	10.407	0.18696	10.107	10.19	10.348	0.13678	-0.0587	-0.0034	0.0495	0.05414
1e+13	9.7539	10.202	10.559	0.41045	9.7416	10.206	10.526	0.41186	-0.0337	0.0042333	0.0587	0.048368

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