



Abstract

This report covers the radiation characterization results of the THVD9491-SP, a full duplex RS-422/RS-485 transceiver using a 1.65V to 5.5V logic supply for data and enable logic signals, and a 3V to 5.5V bus side supply. The study was done to determine total ionizing dose (TID) effects under high dose rate (HDR) up to 100krad(Si) as a one time characterization. The results show that all samples passed within the specified limits up to 100krad(Si) after 672hr anneal at room temperature (resulting in an effective dose rate of 41.33mrad(Si)/s).

Radiation lot acceptance testing (RLAT) is performed using five units at a dose level of 100krad(Si) for future wafer lots per MIL-STD-883 TM 1019 with an annealed effective dose rate of no less than 33mrad(Si)/s. All future wafer lots are tested under the same conditions. TID HDR characterization was performed per TM 1019.

The THVD9491-SP LBC9 process technology contains Bipolar and CMOS components. In addition to an HDR TID, an ELDRS characterization was performed on technology process node (LBC9) that is used by this product. Results showed that worst case values post-irradiation were still within pre-radiation specification limits for both HDR and LDR, hence no ELDRS effects were exhibited. Thus, HDR is performed on each wafer lot for future RLAT testing.

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1 Device Information

THVD9491-SP is a full duplex RS-422/RS-485 transceiver using a 1.65V to 5.5V logic supply for data and enable logic signals, and a 3V to 5.5V bus side supply. The devices have slew rate select feature that enables the devices to be used at two maximum speeds based on the SLR pin setting.

This device features integrated IEC ESD protection, eliminating the need for external system level protection components. Symmetric $\pm 12\text{V}$ input common-mode range makes reliable data communication over longer cable run lengths and/or in the presence of large ground loop voltages. Enhanced 250mV receiver hysteresis provides high noise rejection. In addition, the receiver fail-safe feature makes sure of a logic high when the inputs are open or shorted together.

1.1 Device Details

[Table 1-1](#) lists the THVD9491-SP device information used for TID HDR characterization and qualification.

Table 1-1. Device and Exposure Details

TID HDR Details: Up To 100krad(Si)	
TI Device Number	THVD9491-SP
SMD Number	5962R2522201PXE
Package	14D SOIC
Technology	LBC9
Die Lot Number	5315924
A/T Lot Number	6015111
Lot Trace Code	61A9QSK
Quantity Tested	15 irradiated devices + 5 control
Lot Accept or Reject	Devices passed 100krad(Si)
HDR Radiation Facility	Texas Instruments CLAB in Dallas, Texas
HDR Dose Level	Up to 100krad(Si)
HDR Dose Rate	142.81rad(Si)/s ionizing radiation
Effective Dose Rate 100krad(Si) with 672 hour Anneal	41.33mrad(Si)/s
Anneal Conditions	25°C for 672 hours(100krad(Si))
HDR Radiation Source	Gammacell 220 Excel (GC-220E) Co-60
Irradiation Temperature	Ambient, room temperature

2 Total Dose Test Setup

2.1 Test Overview

The THVD9491-SP samples were irradiated at a high dose rate of 142.81rad(Si)/s up to 100krad(Si) (41.33mrad(Si)/s effective dose rate with 672 hour anneal) and then put through full electrical parametric testing on the production automated test equipment (ATE). The samples were functional and passed all electrical parametric tests with readings within datasheet electrical specification limits.

2.2 Test Description and Facilities

The THVD9491-SP HDR exposure was performed on biased devices in a Co-60 gamma cell at TI's facility in Dallas, Texas. The unattenuated dose rate of this cell is 142.81rad(Si)/s (41.33mrad(Si)/s effective dose rate with 672 hour anneal). After exposure, the devices were packed in dry ice (per MIL-STD-883 Method 1019.9 section 3.10) and full post-radiation electrical evaluation using Texas Instruments ATE was conducted. ATE test limits are set per datasheet electrical limits based on qualification and characterization data. Post radiation measurements were taken within 30 minutes of removing the devices from the dry ice container. The devices were allowed to reach room temperature prior to electrical post radiation measurements.

2.3 Test Setup Details

The devices were tested in biased conditions as described in the following sections.

2.3.1 Bias Diagram

Figure 2-1 shows the bias conditions for each pin during irradiation.

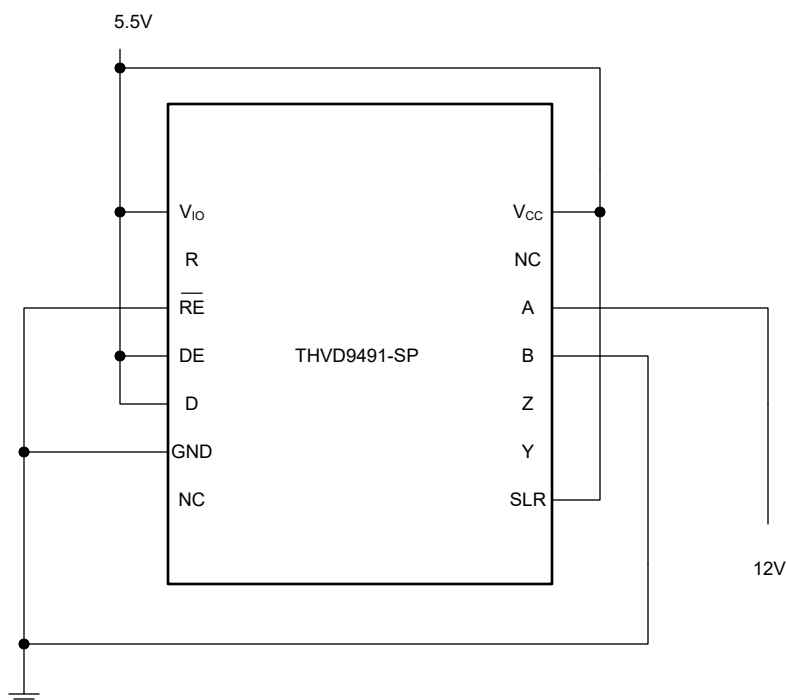


Figure 2-1. THVD9491-SP Bias Diagram

2.4 Test Configuration and Condition

That is, after a predetermined TID level was reached, an electrical test was performed on a given sample of parts to verify that the units are within specified datasheet electrical test limits. The HDR RLAT units are irradiated to 100krad(Si) with 672 hour anneal, and parametrically tested on ATE.

[Table 2-1](#) lists the serialized samples used for TID HDR biased and characterization.

Table 2-1. HDR Biased Device Information

Control Group	HDR Dose Rate = 142.81rad(Si)/s (effective dose rate at 100krad(Si) with 672 hour anneal = 41.33mrad(Si)/s)				
Total Samples: 5	Total Exposed Samples: 15				
	Exposure Levels				
0krad (Si)	30krad (Si)	50krad(Si)	50krad(Si) + 168hr Anneal	100krad(Si)	100krad(Si) + 672hr Anneal
-	1 - 5	6 - 10	6a - 10a	11 - 15	11a - 15a

3 TID Characterization Test Results

3.1 TID Characterization Summary Results

The parametric data for the THVD9491-SP passes up to 100krad(Si) HDR TID irradiation. The drifts of the electrical parameters through HDR were within the datasheet limits.

Overall, the THVD9491-SP showed a strong degree of hardness to HDR TID irradiation up to 100krad(Si). The measurements taken post-irradiation for each sample set showed a marginal shift for most parameters at the device's TID specification level. The parameters that did show a degree of change between pre- and post-irradiation were still within the electrical performance characteristics specified in the datasheet electrical parameters. For the datasheet electrical parameters and associated tests, see [THVD9491-SP Radiation-Hardened ±40V Fault-Protected 3V to 5.5V RS-485 Transceiver with Flexible I/O Supply and IEC ESD](#).

See [Appendix A](#) for HDR report up to 100krad(Si).

3.2 Specification Compliance Matrix

Table 3-1. Electrical Parameters Table

Parameter	Test Conditions	T _A = -55°C to +125°C			Unit	Test Name/Number
		MIN	TYP	MAX		
V _{OD}	R _L = 60Ω, -12V ≤ V _{Itest} ≤ 12V	1.5			V	VODH_60Z_3V
	R _L = 100Ω	1.5				VODH, VODL
Δ V _{OD}	Change in differential output voltage	-200		200	mV	DEL_VOD
V _{OC}	Common-mode output voltage, R _L = 54Ω or 100Ω	1	V _{CC} /2	3	V	VOC
ΔV _{OC(SS)}	Change in steady-state common-mode output voltage, R _L = 54Ω or 100Ω	-250		250	mV	DEL_VOC
I _{OS}	Short-circuit output current, DE = V _{IO} , -40V ≤ (V _Y or V _Z) ≤ 40V, or Y shorted to Z	-250		250	mA	IOSY_DL, IOSY_DH, IOSZ_DL, IOSZ_DH
I _I	Bus input current, DE = 0V, V _I = 12V		75	125	μA	LEAKAGE_12V, LEAKAGE_N7V
	V _{CC} and V _{IO} = 0V or 5.5V, V _I = -7V	-100	60			
V _{OH}	Output high voltage, I _{OH} = -8mA, V _{IO} = 3V to 3.6V or 4.5V to 5.5V	V _{IO} - 0.4	V _{IO} - 0.2		V	VOH_1p65, VOH_1p95, VOH_2p25, VOH_2p75, VOH_3, VOH_3p6, VOH_4p5, VOH_5p5
	Output high voltage, I _{OH} = -4mA, V _{IO} = 1.65V to 1.95V or 2.25V to 2.75V	V _{IO} - 0.4	V _{IO} - 0.2			
V _{OL}	Output low voltage, I _{OL} = -8mA, V _{IO} = 3V to 3.6V or 4.5V to 5.5V		0.2	0.4	V	VOL_1p65, VOL_1p95, VOL_2p25, VOL_2p75, VOL_3, VOL_3p6, VOL_4p5, VOL_5p5
	Output low voltage, I _{OL} = -4mA, V _{IO} = 1.65V to 1.95V or 2.25V to 2.75V		0.2	0.4		
I _{OZ}	Output high-impedance current, R pin, V _O = 0V or V _{IO} , RE = V _{IO}	-1		1	μA	IOZ_RGND
I _{IN}	Input current (DE, SLR), 1.65V ≤ V _{IO} ≤ 5.5V, 0V ≤ V _{IN} ≤ V _{IO}			5	μA	IIH_DE, IIL_DE, IIH_SLR, IIL_DLR
	Input current (D, RE), 1.65V ≤ V _{IO} ≤ 5.5V, 0V ≤ V _{IN} ≤ V _{IO}	-5				IIH_D, IIL_D, IIH_RE, IIL_RE
I _{CC}	Supply current (quiescent), Driver and receiver enabled	V _{CC} = 4.5V to 5.5V, RE = 0V, DE = V _{IO} , No load	4	7.2	mA	ICC_BOTH
		V _{CC} = 3V to 3.6V, RE = 0V, DE = V _{IO} , No load	3.5	7		
	Supply current (quiescent), Driver enabled, receiver disabled	V _{CC} = 4.5V to 5.5V, RE = V _{IO} , DE = V _{IO} , No load	4	7		ICC_DE
		V _{CC} = 3V to 3.6V, RE = V _{IO} , DE = V _{IO} , No load	3	6		
	Supply current (quiescent), Driver disabled, receiver enabled	V _{CC} = 4.5V to 5.5V, RE = 0V, DE = 0V, No load	4	7		ICC_RE
		V _{CC} = 3V to 3.6V, RE = 0V, DE = 0V, No load	3	6		
	Supply current (quiescent), Driver and receiver disabled	V _{CC} = 4.5V to 5.5V, RE = V _{IO} , DE = 0V, D = open, No load	2	5		ICC_DD_RD
		V _{CC} = 3V to 3.6V, RE = V _{IO} , DE = 0V, D = open, No load	2	5		
I _{IO}	Logic supply current (quiescent), V _{IO} = 3 to 3.6V, DE = 0V, RE = 0V, No load	Driver disabled, Receiver enabled, SLR = GND	45	200	μA	IIO_RE_SLRL
		Driver disabled, Receiver enabled, SLR = V _{IO}	33	200		IIO_RE_SLRH
	Logic supply current (quiescent), V _{IO} = 3 to 3.6V, DE = 0V, RE = V _{IO} , No load	Driver disabled, Receiver disabled, SLR = GND	45	200		IIO_RD_SLRL
		Driver disabled, Receiver disabled, SLR = V _{IO}	33	200		IIO_RD_SLRH

4 Reference Documents

Texas Instruments total ionizing dose radiation (total dose) test procedure follows the standards put forth in MIL-STD-883 TM 1019. The document can be found at the DLA website.

A Appendix: HDR TID Report Data

This appendix provides the THVD9491-SP TID HDR report. The report shows the variation for each parameter up to 100krad(Si).

Radiation Level	PARTID	Recorded Value			
		DEL_VOC			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	3.06832	4.13780	.	.
	2	3.44324	4.35651	.	.
	3	3.13255	4.30963	.	.
	4	3.24017	4.07531	.	.
	5	3.10131	4.30963	.	.
50	6	2.03902	1.90940k	2.96001	.
	7	2.35271	1.90615k	2.97560	.
	8	2.41436	1.90460k	4.03269	.
	9	2.13268	1.90890k	4.20991	.
	10	2.05650	1.90649k	4.22569	.
100	11	2.22636	-1.50443k	1.90529k	6.46051
	12	2.25739	-1.50034k	1.90822k	6.08618
	13	2.19430	-1.50159k	-327.46747	5.77450
	14	2.16411	-1.49723k	1.90865k	5.24182
	15	2.28838	-1.49793k	1.90946k	5.82125

Radiation Level	PARTID	Delta		
		DEL_VOC		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	1.07	.	.
	2	0.91	.	.
	3	1.18	.	.
	4	0.84	.	.
	5	1.21	.	.
50	6	1907.36	0.92	.
	7	1903.79	0.62	.
	8	1902.18	1.62	.
	9	1906.76	2.08	.
	10	1904.43	2.17	.
100	11	-1506.66	1903.06	4.23
	12	-1502.60	1905.97	3.83
	13	-1503.78	-329.66	3.58
	14	-1499.39	1906.48	3.08
	15	-1500.22	1907.17	3.53

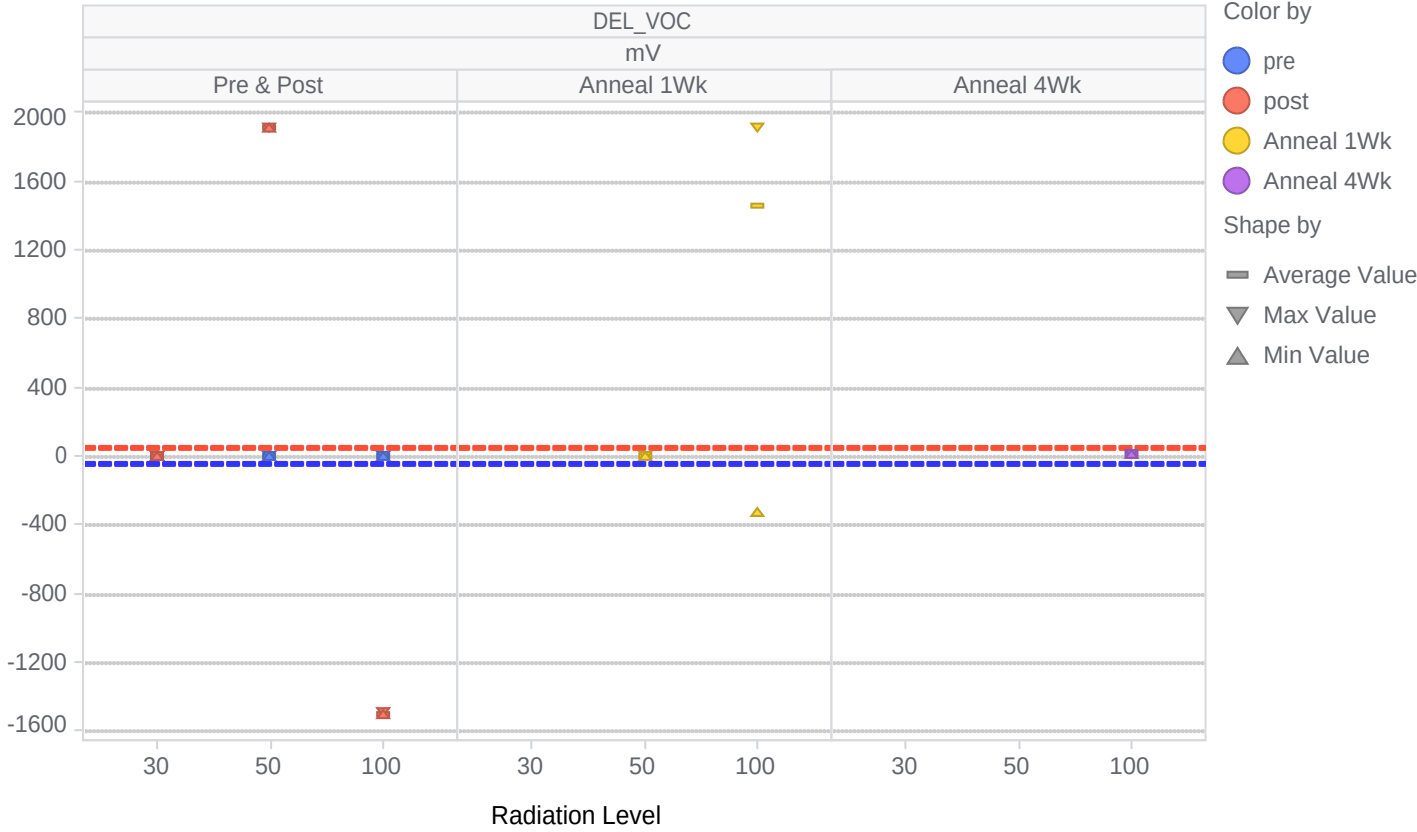
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	3.44324	4.35651	.	.
	Avg	3.20	4.24	.	.
	Min	3.07	4.08	.	.
50	Max	2.41436	1909.39641	4.22569	.
	Avg	2.20	1907.10	3.68	.
	Min	2.04	1904.60	2.96	.
100	Max	2.28838	-1497.22791	1909.45911	6.46051
	Avg	2.23	-1500.30	1460.83	5.88
	Min	2.16	-1504.43	-327.47	5.24



Radiation Level	PARTID	Recorded Value			
		DEL_VOD			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	-3.89301	-75.53213	.	.
	2	-4.98651	-73.72008	.	.
	3	-4.08047	-76.31319	.	.
	4	-4.08048	-75.06350	.	.
	5	-3.14320	-75.12598	.	.
50	6	0.88490	0.88490	-71.32702	.
	7	0.54084	1.13489	-71.38951	.
	8	0.54860	1.00984	-74.01443	.
	9	1.00984	1.13489	-74.01399	.
	10	1.13489	1.00984	-72.60760	.
100	11	0.47983	-1.98125k	6.07014k	-81.08085
	12	1.10403	-1.99275k	6.06248k	-74.48494
	13	0.80033	-1.98962k	-718.51677	-75.13540
	14	0.20514	-2.00760k	6.06554k	-77.92460
	15	0.17458	-2.00775k	6.05482k	-71.77186

Radiation Level	PARTID	Delta		
		DEL_VOD		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-71.64	.	.
	2	-68.73	.	.
	3	-72.23	.	.
	4	-70.98	.	.
	5	-71.98	.	.
50	6	0.00	-72.21	.
	7	0.59	-71.93	.
	8	0.46	-74.56	.
	9	0.13	-75.02	.
	10	-0.13	-73.74	.
100	11	-1981.72	6069.66	-81.56
	12	-1993.85	6061.37	-75.59
	13	-1990.42	-719.32	-75.94
	14	-2007.80	6065.33	-78.13
	15	-2007.93	6054.64	-71.95

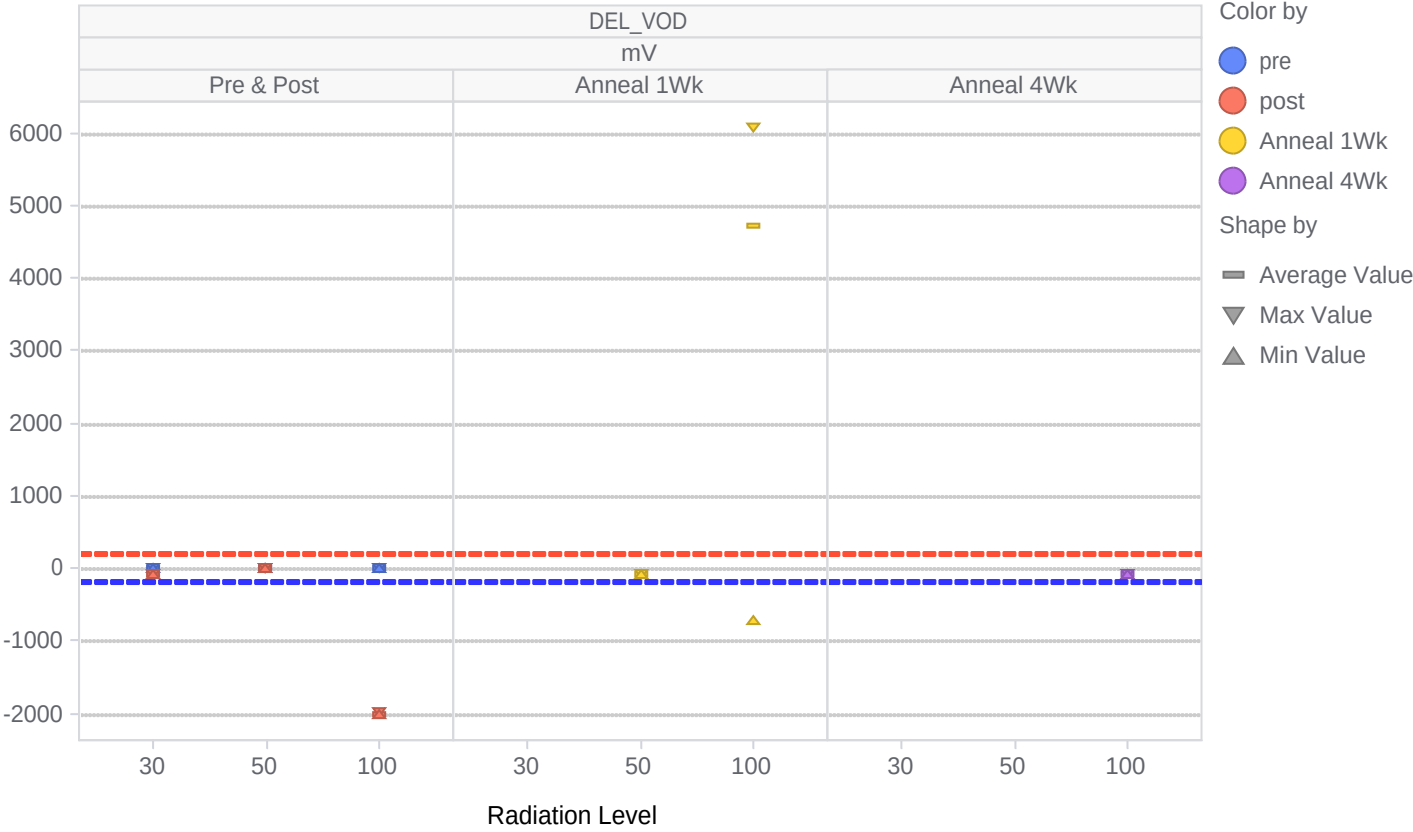
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	-3.14320	-73.72008	.	.
	Avg	-4.04	-75.15	.	.
	Min	-4.99	-76.31	.	.
50	Max	1.13489	1.13489	-71.32702	.
	Avg	0.82	1.03	-72.67	.
	Min	0.54	0.88	-74.01	.
100	Max	1.10403	-1981.24516	6070.13559	-71.77186
	Avg	0.55	-1995.79	4706.89	-76.08
	Min	0.17	-2007.75	-718.52	-81.08



Radiation Level	PARTID	Recorded Value			
		ICC_BOTH			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	3.66539	3.79497	.	.
	2	3.64162	3.77796	.	.
	3	3.62623	3.77402	.	.
	4	3.63521	3.76624	.	.
	5	3.62999	3.76652	.	.
50	6	3.63257	6.42958	3.70263	.
	7	3.69307	6.58614	3.67008	.
	8	3.66417	6.38699	3.76352	.
	9	3.53742	6.33922	3.76080	.
	10	3.59284	6.50943	3.86324	.
100	11	3.67182	14.28462	4.86902	4.20780
	12	3.60848	14.20700	4.62978	4.10383
	13	3.61224	14.97197	4.62784	4.11106
	14	3.62944	13.60615	4.89723	4.18053
	15	3.60196	13.94796	4.57967	4.08502

Radiation Level	PARTID	Delta		
		ICC_BOTH		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.13	.	.
	2	0.14	.	.
	3	0.15	.	.
	4	0.13	.	.
	5	0.14	.	.
50	6	2.80	0.07	.
	7	2.89	-0.02	.
	8	2.72	0.10	.
	9	2.80	0.22	.
	10	2.92	0.27	.
100	11	10.61	1.20	0.54
	12	10.60	1.02	0.50
	13	11.36	1.02	0.50
	14	9.98	1.27	0.55
	15	10.35	0.98	0.48

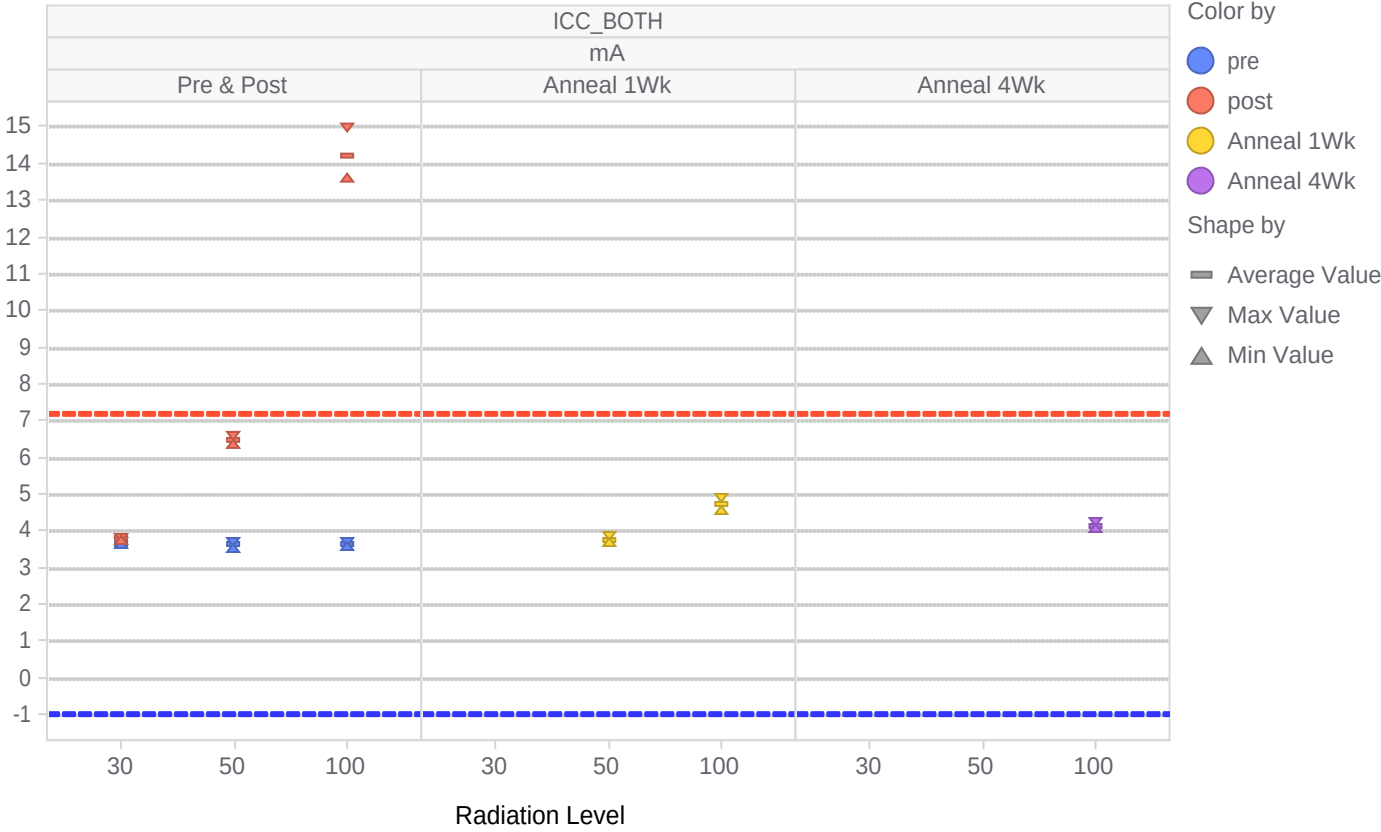
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	3.66539	3.79497	.	.
	Avg	3.64	3.78	.	.
	Min	3.63	3.77	.	.
50	Max	3.69307	6.58614	3.86324	.
	Avg	3.62	6.45	3.75	.
	Min	3.54	6.34	3.67	.
100	Max	3.67182	14.97197	4.89723	4.20780
	Avg	3.62	14.20	4.72	4.14
	Min	3.60	13.61	4.58	4.09



Radiation Level	PARTID	Recorded Value			
		ICC_DD_RD			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.00011	2.37494	.	.
	2	0.00009	2.13667	.	.
	3	0.00009	3.00893	.	.
	4	0.00009	2.67838	.	.
	5	0.00010	2.66365	.	.
50	6	0.00008	13.91712	0.61399	.
	7	0.00015	14.37419	0.61127	.
	8	0.00008	13.78789	0.51216	.
	9	0.00007	13.81683	0.47735	.
	10	0.00008	14.21397	0.52042	.
100	11	0.00007	47.12575	7.58010	3.61921
	12	0.00016	44.03075	6.69509	2.58151
	13	0.00009	47.08313	6.72884	2.75399
	14	0.00008	41.55500	7.54403	3.62317
	15	0.00008	42.85738	6.36224	2.61654

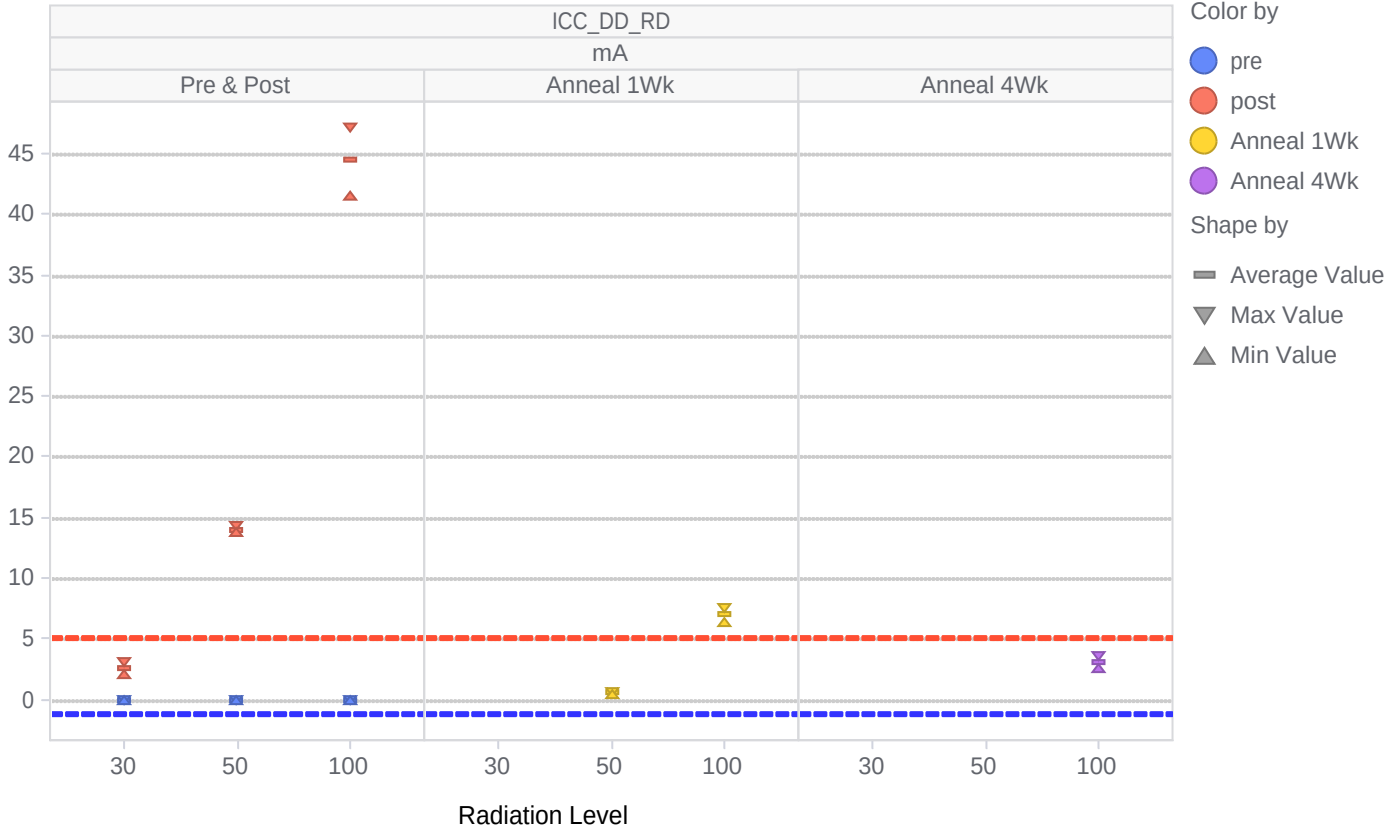
Radiation Level	PARTID	Delta		
		ICC_DD_RD		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	2.37	.	.
	2	2.14	.	.
	3	3.01	.	.
	4	2.68	.	.
	5	2.66	.	.
50	6	13.92	0.61	.
	7	14.37	0.61	.
	8	13.79	0.51	.
	9	13.82	0.48	.
	10	14.21	0.52	.
100	11	47.13	7.58	3.62
	12	44.03	6.69	2.58
	13	47.08	6.73	2.75
	14	41.55	7.54	3.62
	15	42.86	6.36	2.62

Colors

Delta > 50% of Pre

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.00011	3.00893	.	.
	Avg	0.00	2.57	.	.
	Min	0.00	2.14	.	.
50	Max	0.00015	14.37419	0.61399	.
	Avg	0.00	14.02	0.55	.
	Min	0.00	13.79	0.48	.
100	Max	0.00016	47.12575	7.58010	3.62317
	Avg	0.00	44.53	6.98	3.04
	Min	0.00	41.55	6.36	2.58



Radiation Level	PARTID	Recorded Value			
		ICC_DE			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.58605	2.89456	.	.
	2	2.58749	2.88704	.	.
	3	2.57975	2.89951	.	.
	4	2.57475	3.94716	.	.
	5	2.57552	3.94712	.	.
50	6	2.56264	7.38308	2.69589	.
	7	2.62164	7.60570	2.64457	.
	8	2.59426	7.37891	2.68384	.
	9	2.51680	7.33476	2.67186	.
	10	2.56079	7.51468	2.72712	.
100	11	2.60356	17.81755	5.28918	4.40760
	12	2.55302	17.41839	4.96799	3.90379
	13	2.56451	18.44677	4.95475	4.27653
	14	2.57886	16.59668	5.33673	3.33074
	15	2.55573	17.02125	4.90705	3.18085

Radiation Level	PARTID	Delta		
		ICC_DE		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.31	.	.
	2	0.30	.	.
	3	0.32	.	.
	4	1.37	.	.
	5	1.37	.	.
50	6	4.82	0.13	.
	7	4.98	0.02	.
	8	4.78	0.09	.
	9	4.82	0.16	.
	10	4.95	0.17	.
100	11	15.21	2.69	1.80
	12	14.87	2.41	1.35
	13	15.88	2.39	1.71
	14	14.02	2.76	0.75
	15	14.47	2.35	0.63

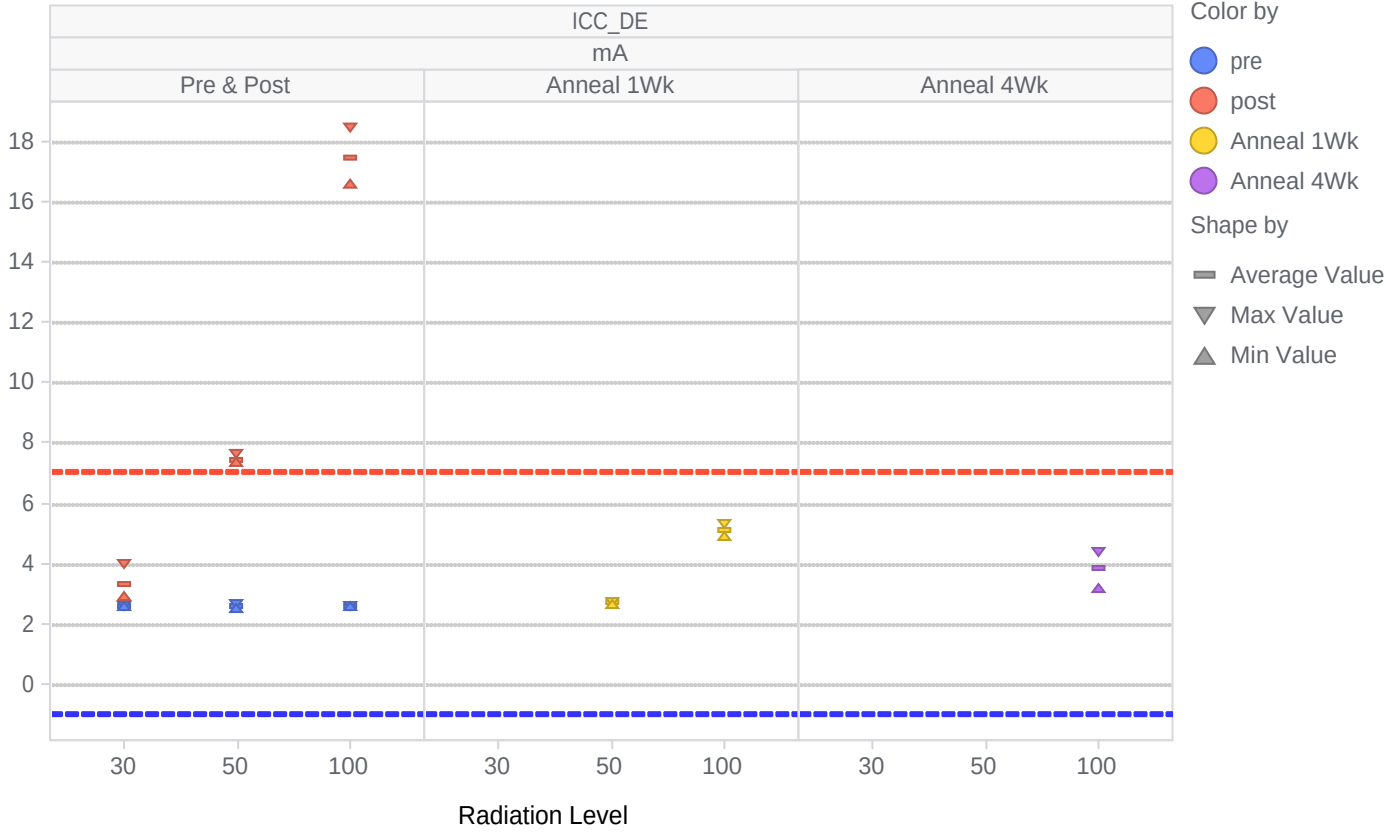
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.58749	3.94716	.	.
	Avg	2.58	3.32	.	.
	Min	2.57	2.89	.	.
50	Max	2.62164	7.60570	2.72712	.
	Avg	2.57	7.44	2.68	.
	Min	2.52	7.33	2.64	.
100	Max	2.60356	18.44677	5.33673	4.40760
	Avg	2.57	17.46	5.09	3.82
	Min	2.55	16.60	4.91	3.18



Radiation Level	PARTID	Recorded Value			
		ICC_RE			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	1.79864	3.21337	.	.
	2	1.78015	3.04372	.	.
	3	1.76150	3.79991	.	.
	4	1.77377	3.22480	.	.
	5	1.76986	3.22826	.	.
50	6	1.78223	11.52092	2.15576	.
	7	1.80557	11.91224	2.15035	.
	8	1.79054	11.36557	2.15856	.
	9	1.71656	11.37846	2.13869	.
	10	1.73971	11.72499	2.23937	.
100	11	1.79384	38.02287	6.56324	3.98312
	12	1.76856	35.76350	5.88845	3.43728
	13	1.75520	37.97590	5.97338	3.62980
	14	1.76906	33.66518	6.49366	4.26552
	15	1.75835	34.69159	5.64345	3.61315

Radiation Level	PARTID	Delta		
		ICC_RE		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	1.41	.	.
	2	1.26	.	.
	3	2.04	.	.
	4	1.45	.	.
	5	1.46	.	.
50	6	9.74	0.37	.
	7	10.11	0.34	.
	8	9.58	0.37	.
	9	9.66	0.42	.
	10	9.99	0.50	.
100	11	36.23	4.77	2.19
	12	33.99	4.12	1.67
	13	36.22	4.22	1.87
	14	31.90	4.72	2.50
	15	32.93	3.89	1.85

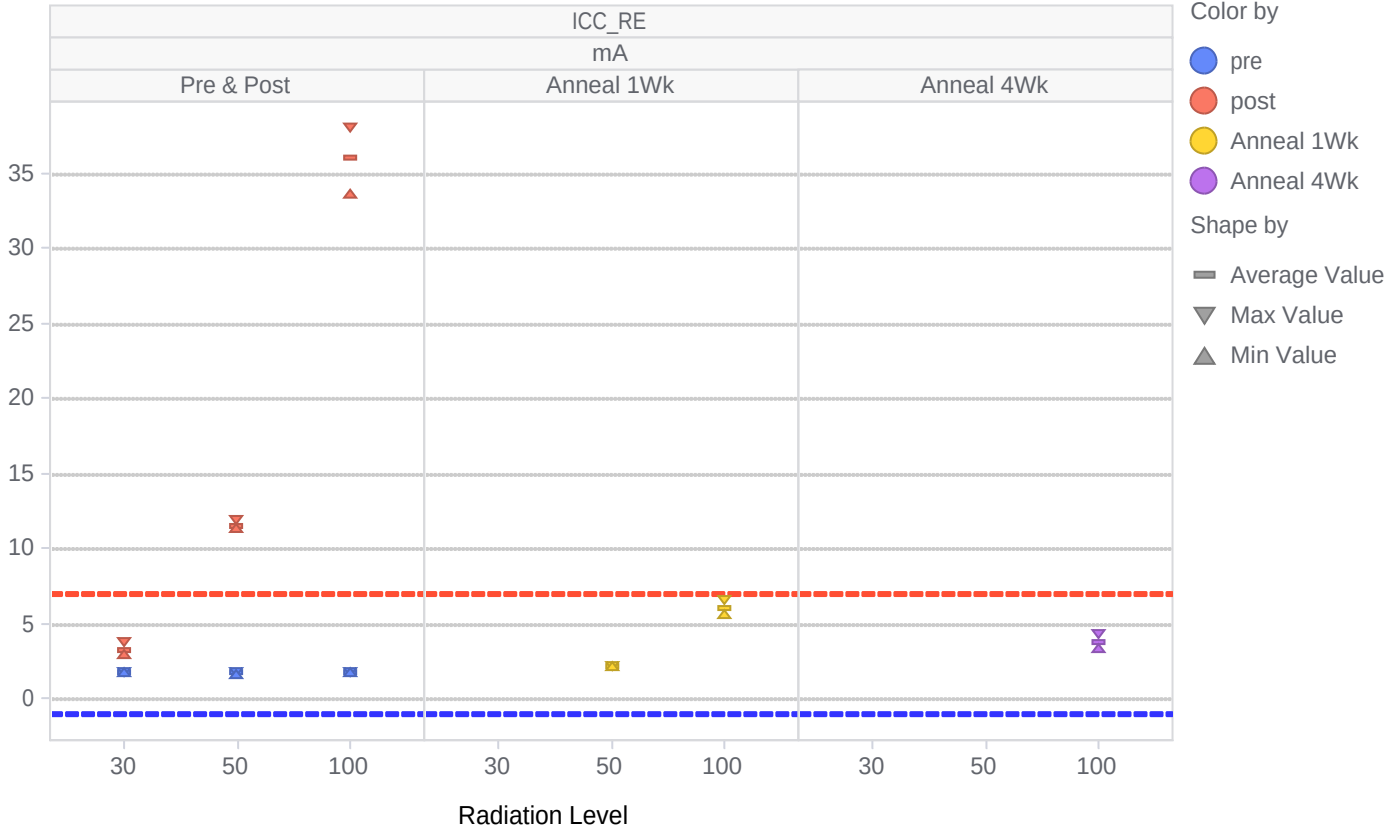
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	1.79864	3.79991	.	.
	Avg	1.78	3.30	.	.
	Min	1.76	3.04	.	.
50	Max	1.80557	11.91224	2.23937	.
	Avg	1.77	11.58	2.17	.
	Min	1.72	11.37	2.14	.
100	Max	1.79384	38.02287	6.56324	4.26552
	Avg	1.77	36.02	6.11	3.79
	Min	1.76	33.67	5.64	3.44



Radiation Level	PARTID	Recorded Value			
		IIH_D			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.00543	0.00355	.	.
	2	0.00418	0.00606	.	.
	3	0.00229	0.00606	.	.
	4	0.00418	0.00418	.	.
	5	0.00480	0.00606	.	.
50	6	0.00398	0.00649	0.00649	.
	7	0.00649	0.00712	0.00649	.
	8	0.00649	0.00460	0.00586	.
	9	0.00460	0.00460	0.00523	.
	10	0.00586	0.00586	0.00523	.
100	11	0.00523	0.00775	0.00649	0.00460
	12	0.00523	0.00837	0.00649	0.00649
	13	0.00712	0.00712	0.00775	0.00649
	14	0.00837	0.00900	0.00460	0.00398
	15	0.00712	0.00837	0.00586	0.00460

Radiation Level	PARTID	Delta		
		IIH_D		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	0.00	0.00
	12	0.00	0.00	0.00
	13	0.00	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

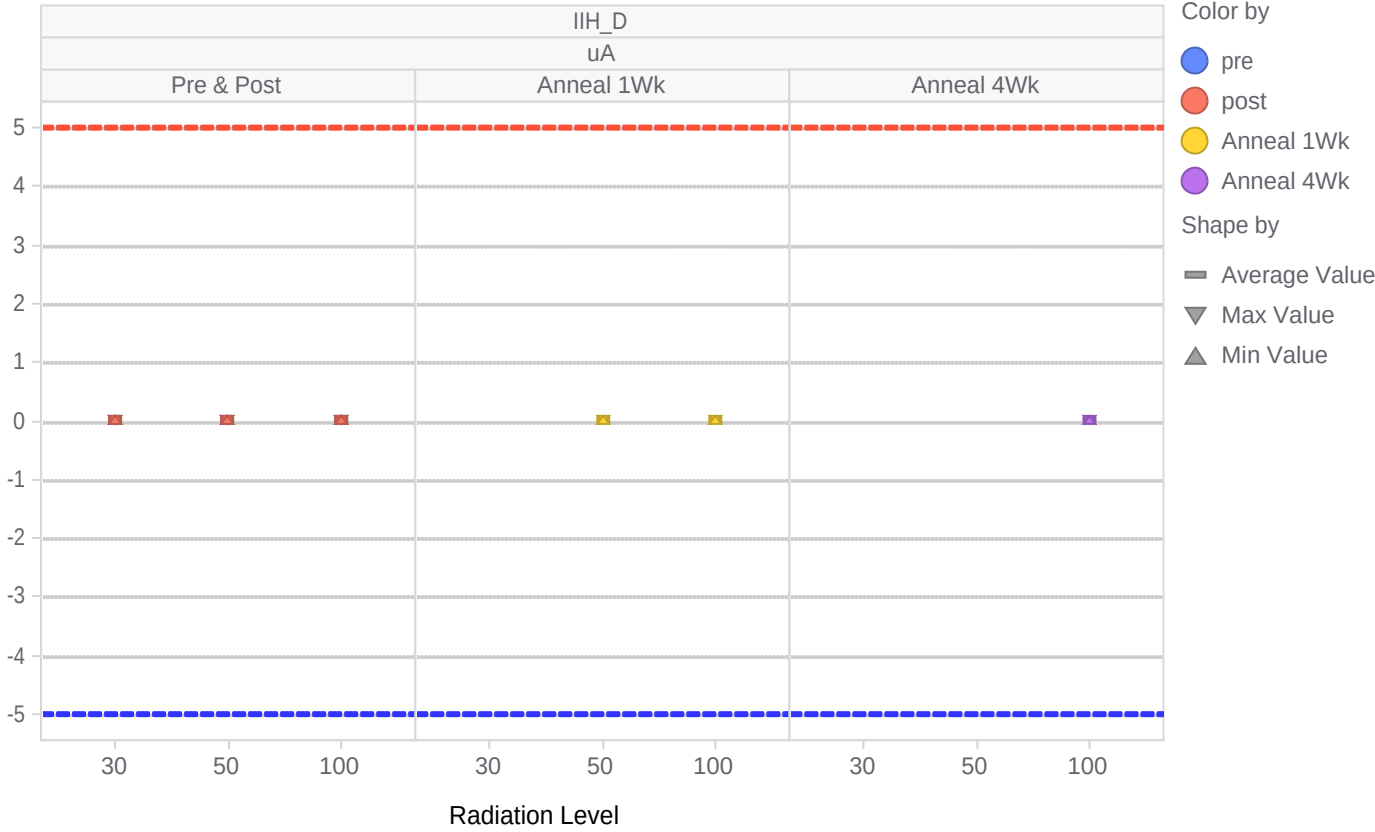
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.00543	0.00606	.	.
	Avg	0.00	0.01	.	.
	Min	0.00	0.00	.	.
50	Max	0.00649	0.00712	0.00649	.
	Avg	0.01	0.01	0.01	.
	Min	0.00	0.00	0.01	.
100	Max	0.00837	0.00900	0.00775	0.00649
	Avg	0.01	0.01	0.01	0.01
	Min	0.01	0.01	0.00	0.00



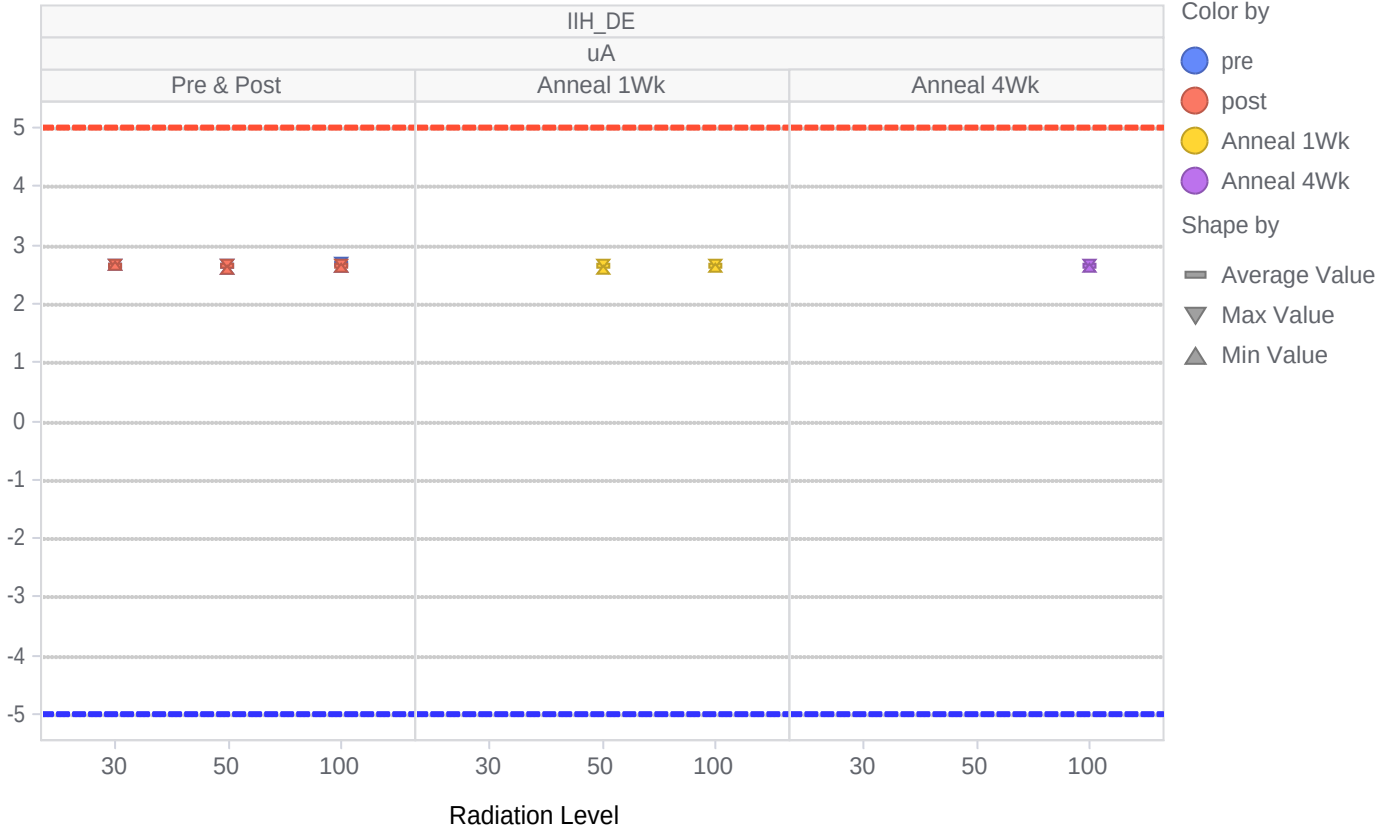
Radiation Level	PARTID	Recorded Value			
		IIH_DE			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.63168	2.63105	.	.
	2	2.68448	2.68071	.	.
	3	2.64676	2.64362	.	.
	4	2.66374	2.64739	.	.
	5	2.65179	2.64802	.	.
50	6	2.61305	2.61493	2.61556	.
	7	2.68656	2.67965	2.58540	.
	8	2.68405	2.65326	2.66143	.
	9	2.58917	2.58729	2.65578	.
	10	2.62310	2.65955	2.67714	.
100	11	2.68405	2.67525	2.67525	2.67400
	12	2.62562	2.67651	2.67651	2.67525
	13	2.68656	2.60174	2.66646	2.67086
	14	2.67463	2.67651	2.60048	2.59608
	15	2.69662	2.66834	2.67840	2.67588

Radiation Level	PARTID	Delta		
		IIH_DE		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	-0.02	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	-0.01	-0.10	.
	8	-0.03	-0.02	.
	9	0.00	0.07	.
	10	0.04	0.05	.
100	11	-0.01	-0.01	-0.01
	12	0.05	0.05	0.05
	13	-0.08	-0.02	-0.02
	14	0.00	-0.07	-0.08
	15	-0.03	-0.02	-0.02

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.68448	2.68071	.	.
	Avg	2.66	2.65	.	.
	Min	2.63	2.63	.	.
50	Max	2.68656	2.67965	2.67714	.
	Avg	2.64	2.64	2.64	.
	Min	2.59	2.59	2.59	.
100	Max	2.69662	2.67651	2.67840	2.67588
	Avg	2.67	2.66	2.66	2.66
	Min	2.63	2.60	2.60	2.60



Radiation Level	PARTID	Recorded Value			
		IIH_RE			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.01463	0.01651	.	.
	2	0.01777	0.01526	.	.
	3	0.01337	0.01589	.	.
	4	0.01463	0.01463	.	.
	5	0.01526	0.01714	.	.
50	6	0.00456	0.00330	0.00330	.
	7	0.00393	0.00393	0.00079	.
	8	0.00330	0.00456	0.00205	.
	9	0.00393	0.00456	0.00268	.
	10	0.00330	0.00205	0.00205	.
100	11	0.00456	0.00456	0.00205	0.00330
	12	0.00268	0.00519	0.00393	0.00142
	13	0.00393	0.00519	0.00142	0.00142
	14	0.00268	0.00582	0.00268	0.00393
	15	0.00582	0.00393	0.00268	0.00268

Radiation Level	PARTID	Delta		
		IIH_RE		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	0.00	0.00
	12	0.00	0.00	0.00
	13	0.00	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

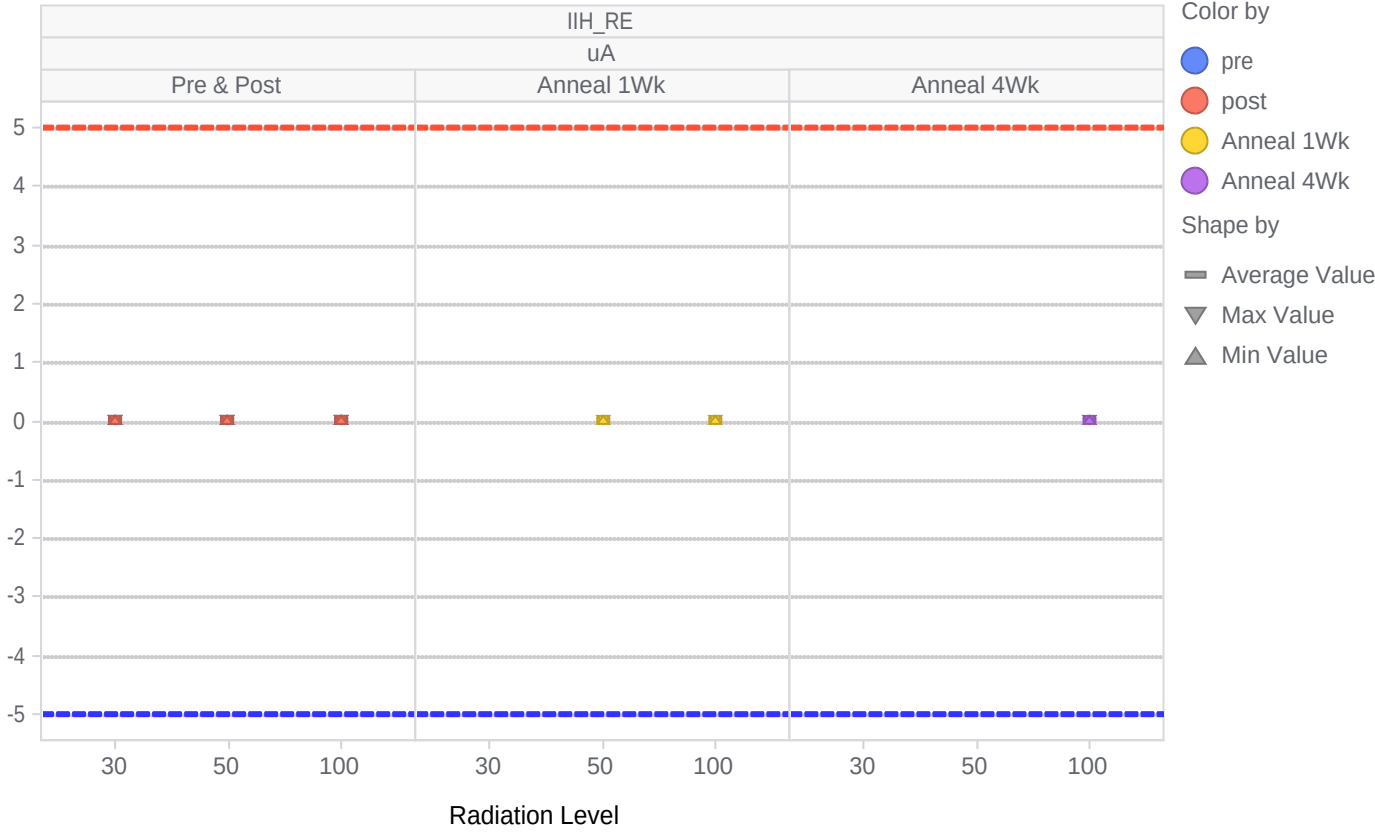
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.01777	0.01714	.	.
	Avg	0.02	0.02	.	.
	Min	0.01	0.01	.	.
50	Max	0.00456	0.00456	0.00330	.
	Avg	0.00	0.00	0.00	.
	Min	0.00	0.00	0.00	.
100	Max	0.00582	0.00582	0.00393	0.00393
	Avg	0.00	0.00	0.00	0.00
	Min	0.00	0.00	0.00	0.00



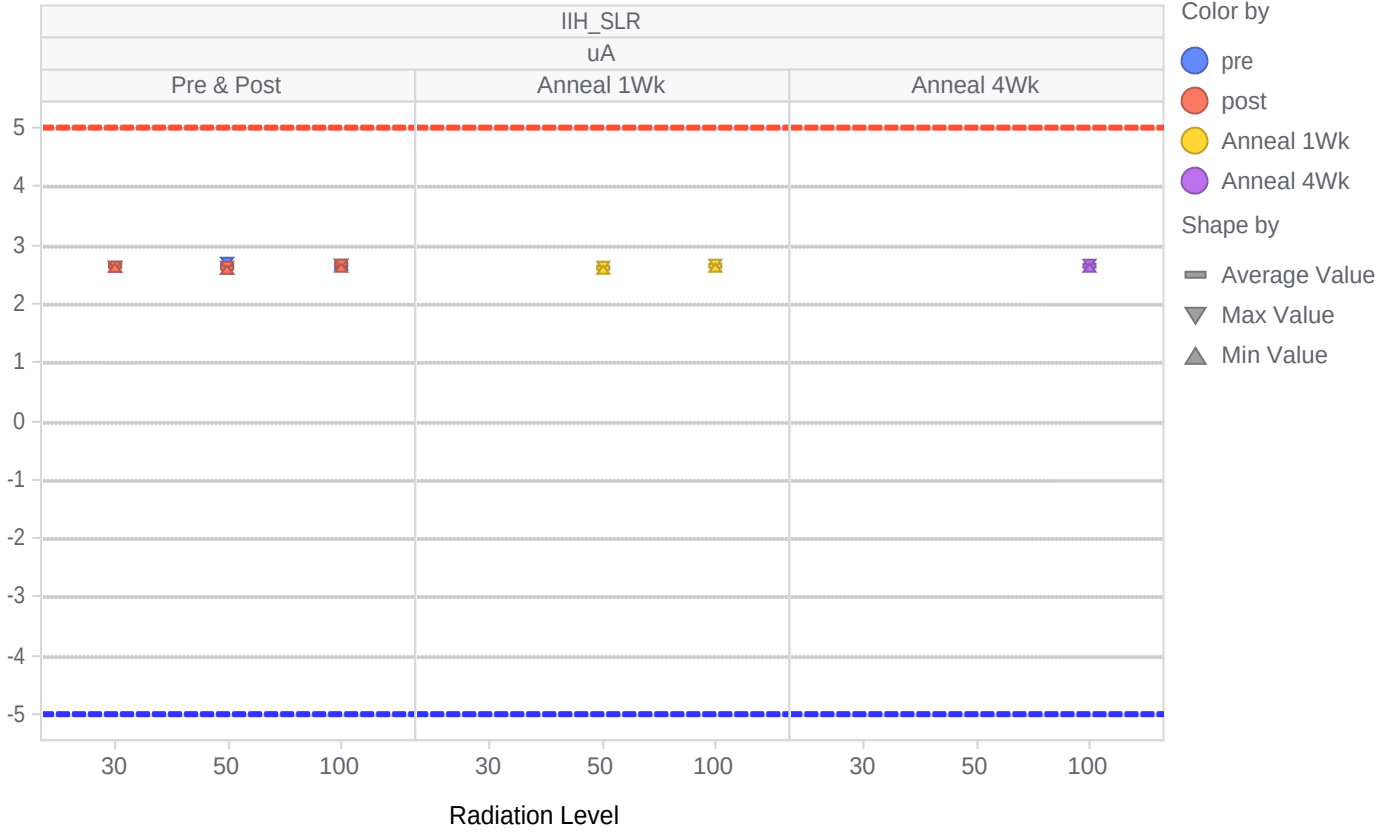
Radiation Level	PARTID	Recorded Value			
		IIH_SLR			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.65156	2.64716	.	.
	2	2.66161	2.65596	.	.
	3	2.62201	2.61699	.	.
	4	2.65658	2.63521	.	.
	5	2.64024	2.63396	.	.
50	6	2.62072	2.57794	2.57605	.
	7	2.67608	2.65909	2.60876	.
	8	2.69935	2.61757	2.65406	.
	9	2.61506	2.60751	2.61820	.
	10	2.58926	2.65595	2.65720	.
100	11	2.66224	2.65783	2.65532	2.65406
	12	2.64211	2.69118	2.68866	2.69055
	13	2.64903	2.61128	2.68111	2.68237
	14	2.65091	2.66727	2.60939	2.61002
	15	2.64462	2.68426	2.66916	2.66790

Radiation Level	PARTID	Delta		
		IIH_SLR		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	-0.01	.	.
	3	-0.01	.	.
	4	-0.02	.	.
	5	-0.01	.	.
50	6	-0.04	-0.04	.
	7	-0.02	-0.07	.
	8	-0.08	-0.05	.
	9	-0.01	0.00	.
	10	0.07	0.07	.
100	11	0.00	-0.01	-0.01
	12	0.05	0.05	0.05
	13	-0.04	0.03	0.03
	14	0.02	-0.04	-0.04
	15	0.04	0.02	0.02

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.66161	2.65596	.	.
	Avg	2.65	2.64	.	.
	Min	2.62	2.62	.	.
50	Max	2.69935	2.65909	2.65720	.
	Avg	2.64	2.62	2.62	.
	Min	2.59	2.58	2.58	.
100	Max	2.66224	2.69118	2.68866	2.69055
	Avg	2.65	2.66	2.66	2.66
	Min	2.64	2.61	2.61	2.61



Radiation Level	PARTID	Recorded Value			
		IIL_D			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	-0.77866	-0.77765	.	.
	2	-0.78986	-0.78942	.	.
	3	-0.78023	-0.78243	.	.
	4	-0.78407	-0.77904	.	.
	5	-0.78055	-0.77916	.	.
50	6	-0.77330	-0.77210	-0.77204	.
	7	-0.79983	-0.79121	-0.76230	.
	8	-0.79681	-0.78317	-0.78329	.
	9	-0.76468	-0.76274	-0.78688	.
	10	-0.77361	-0.78260	-0.79235	.
100	11	-0.79260	-0.78725	-0.91972	-0.79839
	12	-0.77870	-0.79518	-0.73237	-0.80468
	13	-0.79367	-0.76902	-0.98217	-0.79965
	14	-0.78933	-0.79235	-0.85727	-0.78017
	15	-0.79077	-0.78593	-0.85727	-0.80405

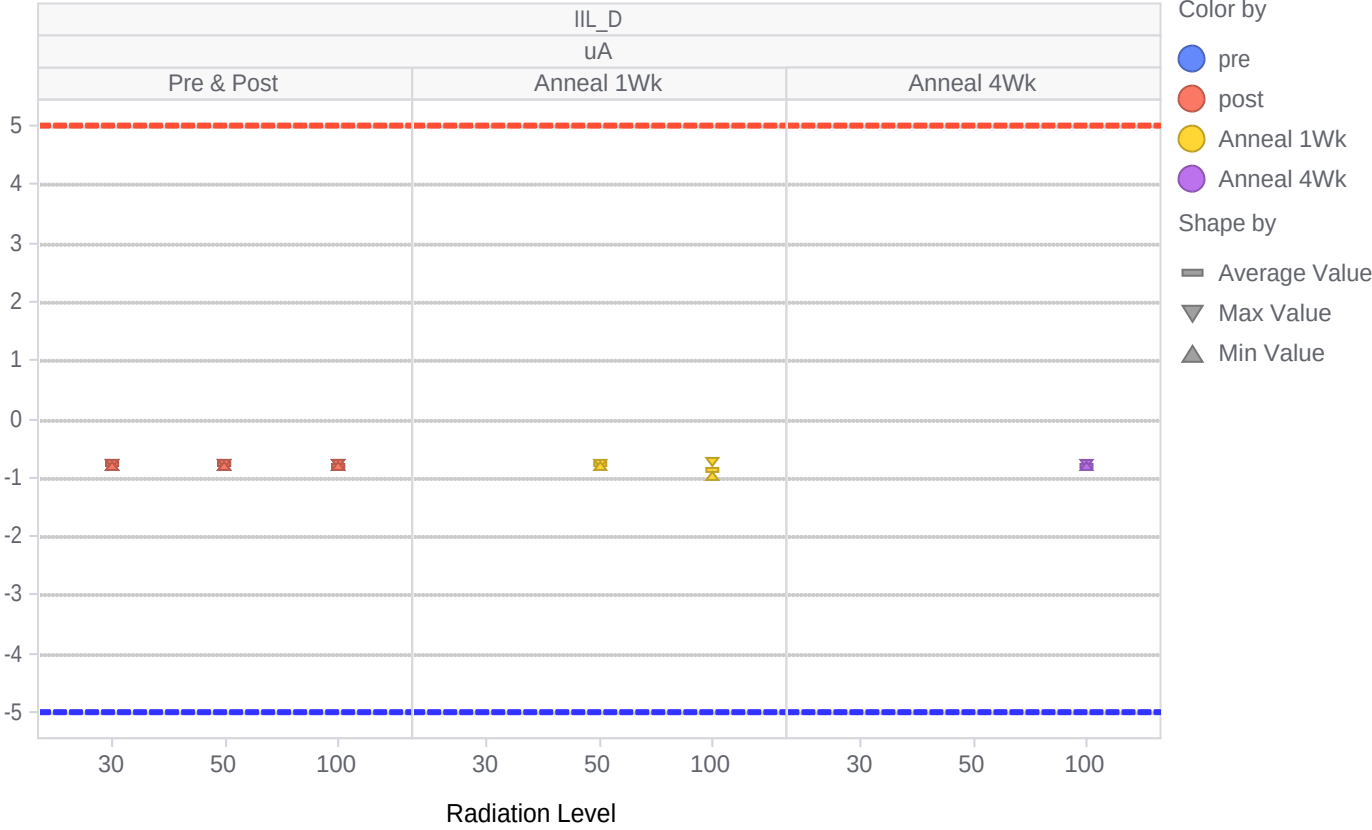
Radiation Level	PARTID	Delta		
		IIL_D		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.01	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.01	0.04	.
	8	0.01	0.01	.
	9	0.00	-0.02	.
	10	-0.01	-0.02	.
100	11	0.01	-0.13	-0.01
	12	-0.02	0.05	-0.03
	13	0.02	-0.19	-0.01
	14	0.00	-0.07	0.01
	15	0.00	-0.07	-0.01

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	-0.77866	-0.77765	.	.
	Avg	-0.78	-0.78	.	.
	Min	-0.79	-0.79	.	.
50	Max	-0.76468	-0.76274	-0.76230	.
	Avg	-0.78	-0.78	-0.78	.
	Min	-0.80	-0.79	-0.79	.
100	Max	-0.77870	-0.76902	-0.73237	-0.78017
	Avg	-0.79	-0.79	-0.87	-0.80
	Min	-0.79	-0.80	-0.98	-0.80



Radiation Level	PARTID	Recorded Value			
		IIL_DE			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.00638	0.00625	.	.
	2	0.00612	0.00619	.	.
	3	0.00675	0.00455	.	.
	4	0.00625	0.00619	.	.
	5	0.00612	0.00619	.	.
50	6	0.00725	0.00568	0.00719	.
	7	0.00430	0.00581	0.00663	.
	8	0.00788	0.00600	0.00656	.
	9	0.00732	0.00606	0.00462	.
	10	0.00719	0.00612	0.00732	.
100	11	0.00688	0.00242	-0.04833	-0.00208
	12	0.00694	0.00311	-0.04833	-0.00082
	13	0.00707	0.00210	0.13914	0.00107
	14	0.00688	0.00235	0.01416	-0.00396
	15	0.00707	0.00273	0.07665	-0.00333

Radiation Level	PARTID	Delta		
		IIL_DE		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	-0.06	-0.01
	12	0.00	-0.06	-0.01
	13	0.00	0.13	-0.01
	14	0.00	0.01	-0.01
	15	0.00	0.07	-0.01

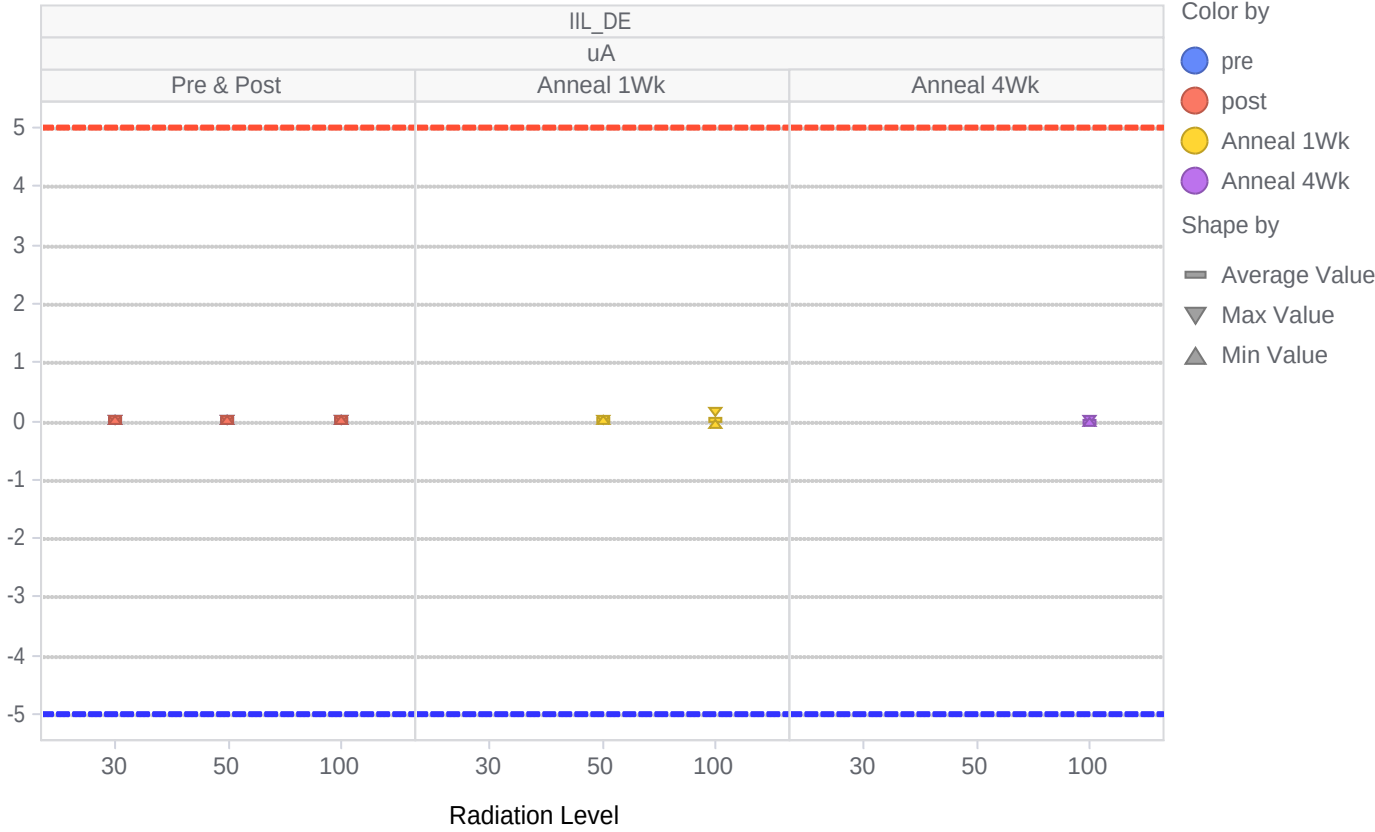
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.00675	0.00625	.	.
	Avg	0.01	0.01	.	.
	Min	0.01	0.00	.	.
50	Max	0.00788	0.00612	0.00732	.
	Avg	0.01	0.01	0.01	.
	Min	0.00	0.01	0.00	.
100	Max	0.00707	0.00311	0.13914	0.00107
	Avg	0.01	0.00	0.03	0.00
	Min	0.01	0.00	-0.05	0.00



Radiation Level	PARTID	Recorded Value			
		IIL_RE			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	-0.77555	-0.77435	.	.
	2	-0.78587	-0.78442	.	.
	3	-0.77529	-0.77385	.	.
	4	-0.78222	-0.77643	.	.
	5	-0.77813	-0.77674	.	.
50	6	-0.77150	-0.77036	-0.77332	.
	7	-0.79381	-0.79149	-0.76433	.
	8	-0.79369	-0.78526	-0.78828	.
	9	-0.76552	-0.76383	-0.78627	.
	10	-0.77420	-0.78728	-0.79180	.
100	11	-0.79293	-0.78872	-0.94860	-0.80228
	12	-0.77432	-0.79111	-0.76106	-0.80605
	13	-0.79457	-0.76879	-0.69854	-0.80102
	14	-0.79174	-0.78941	-0.82357	-0.78154
	15	-0.79784	-0.78897	-0.88609	-0.80354

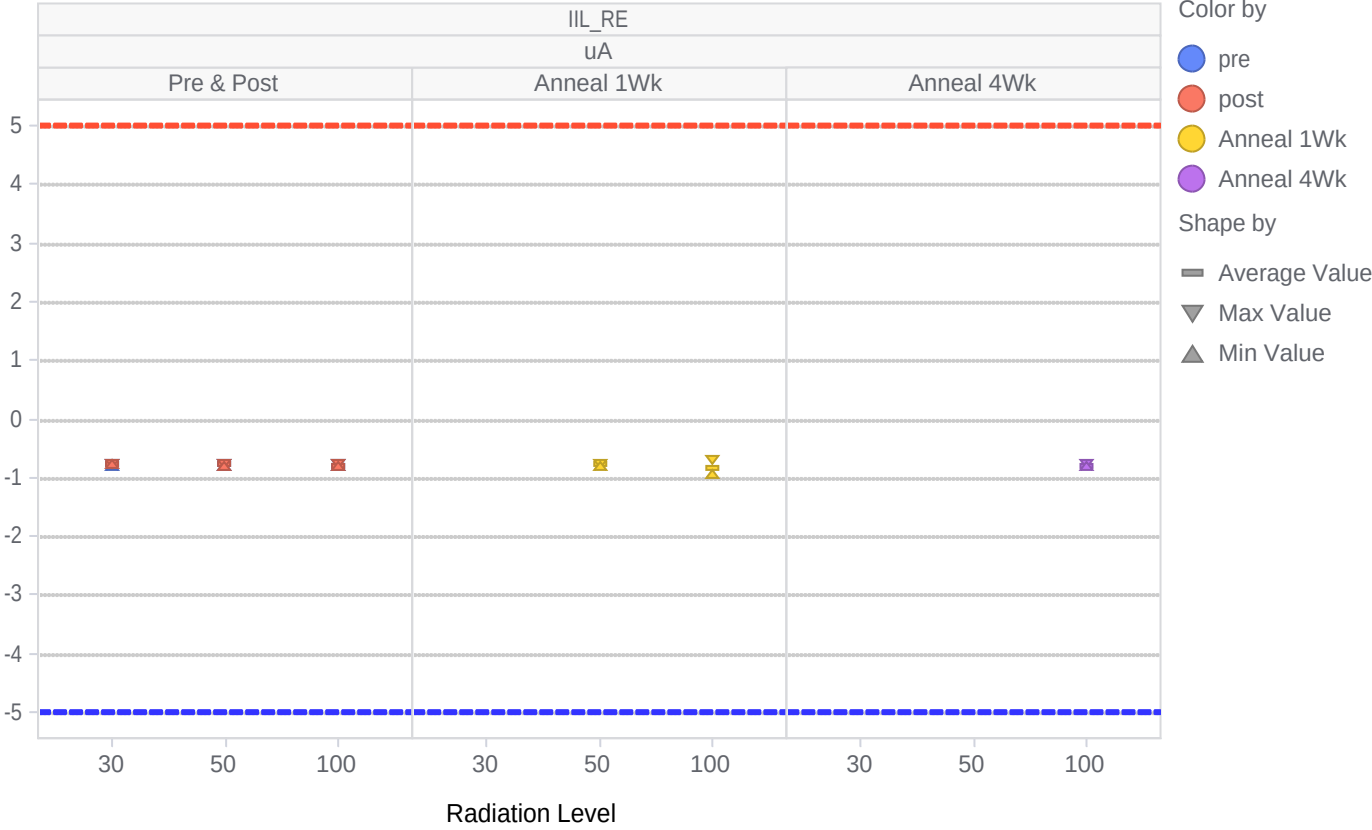
Radiation Level	PARTID	Delta		
		IIL_RE		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.01	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.03	.
	8	0.01	0.01	.
	9	0.00	-0.02	.
	10	-0.01	-0.02	.
100	11	0.00	-0.16	-0.01
	12	-0.02	0.01	-0.03
	13	0.03	0.10	-0.01
	14	0.00	-0.03	0.01
	15	0.01	-0.09	-0.01

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	-0.77529	-0.77385	.	.
	Avg	-0.78	-0.78	.	.
	Min	-0.79	-0.78	.	.
50	Max	-0.76552	-0.76383	-0.76433	.
	Avg	-0.78	-0.78	-0.78	.
	Min	-0.79	-0.79	-0.79	.
100	Max	-0.77432	-0.76879	-0.69854	-0.78154
	Avg	-0.79	-0.79	-0.82	-0.80
	Min	-0.80	-0.79	-0.95	-0.81



Radiation Level	PARTID	Recorded Value			
		IIL_SLR			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.00737	0.00762	.	.
	2	0.00749	0.00724	.	.
	3	0.00831	0.00623	.	.
	4	0.00718	0.00768	.	.
	5	0.00806	0.00787	.	.
50	6	0.00499	0.00241	0.00392	.
	7	0.00442	0.00191	0.00379	.
	8	0.00499	0.00203	0.00329	.
	9	0.00593	0.00310	0.00442	.
	10	0.00436	0.00191	0.00411	.
100	11	0.00430	-0.00300	0.14691	0.00367
	12	0.00468	-0.00099	0.20945	0.00304
	13	0.00531	-0.00307	0.08437	0.00178
	14	0.00461	-0.00212	0.02184	0.00304
	15	0.00512	-0.00244	-0.04070	0.00241

Radiation Level	PARTID	Delta		
		IIL_SLR		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	-0.01	0.14	0.00
	12	-0.01	0.20	0.00
	13	-0.01	0.08	0.00
	14	-0.01	0.02	0.00
	15	-0.01	-0.05	0.00

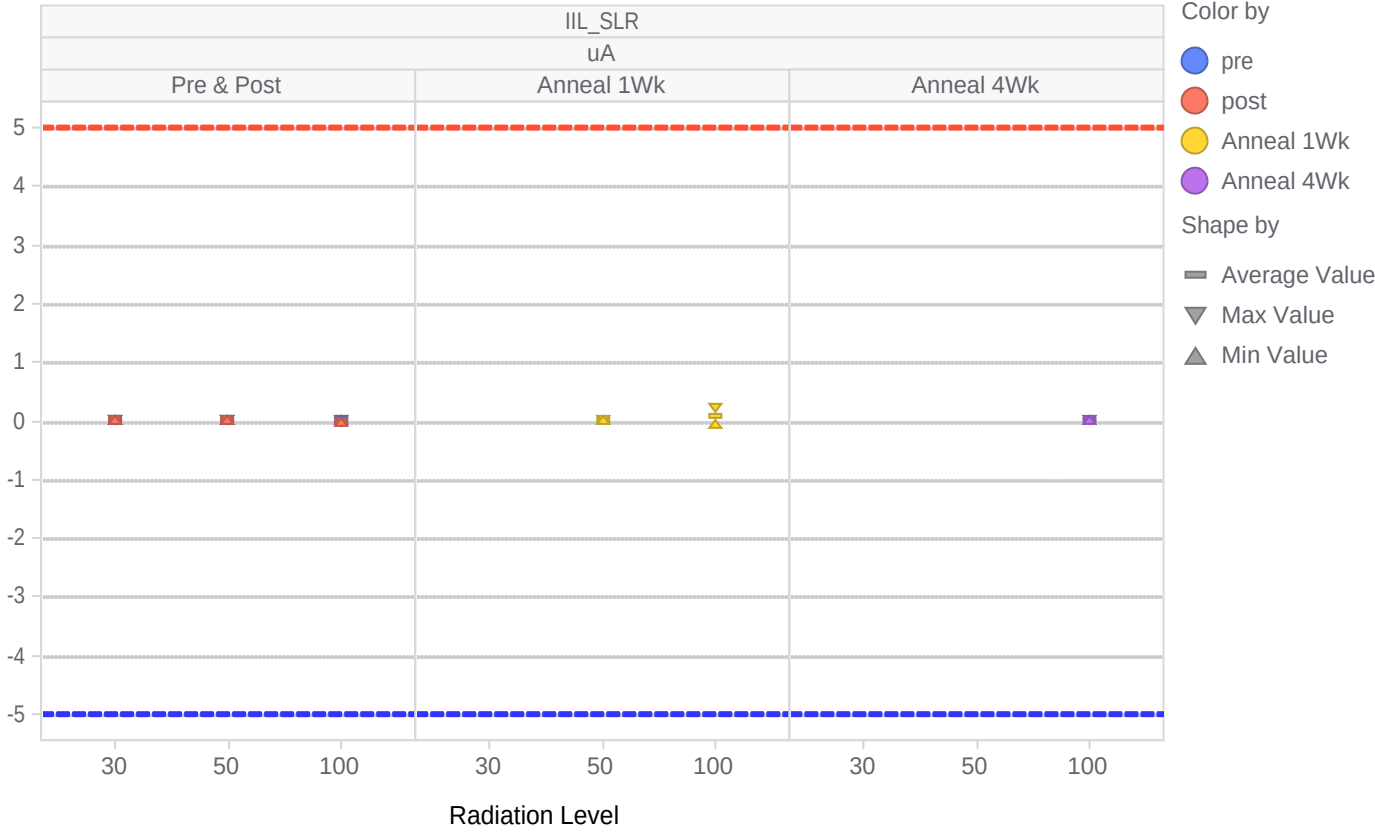
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.00831	0.00787	.	.
	Avg	0.01	0.01	.	.
	Min	0.01	0.01	.	.
50	Max	0.00593	0.00310	0.00442	.
	Avg	0.00	0.00	0.00	.
	Min	0.00	0.00	0.00	.
100	Max	0.00531	-0.00099	0.20945	0.00367
	Avg	0.00	0.00	0.08	0.00
	Min	0.00	0.00	-0.04	0.00



Radiation Level	PARTID	Recorded Value			
		IIO_RD_SLRH			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.00990	54.96046	.	.
	2	0.00772	44.88051	.	.
	3	0.00815	55.37613	.	.
	4	0.00804	47.47844	.	.
	5	0.00806	46.54319	.	.
50	6	0.00867	312.19987	23.43593	.
	7	0.00857	315.58209	22.16599	.
	8	0.00850	321.18958	20.58873	.
	9	0.00906	310.94198	23.72849	.
	10	0.00915	313.57651	22.61656	.
100	11	0.00831	1.19375k	177.50659	84.61184
	12	0.00900	1.12424k	149.35982	72.26184
	13	0.00885	1.18444k	127.58694	58.26135
	14	0.00849	1.06954k	193.91462	95.25097
	15	0.00866	1.07494k	136.66409	64.56964

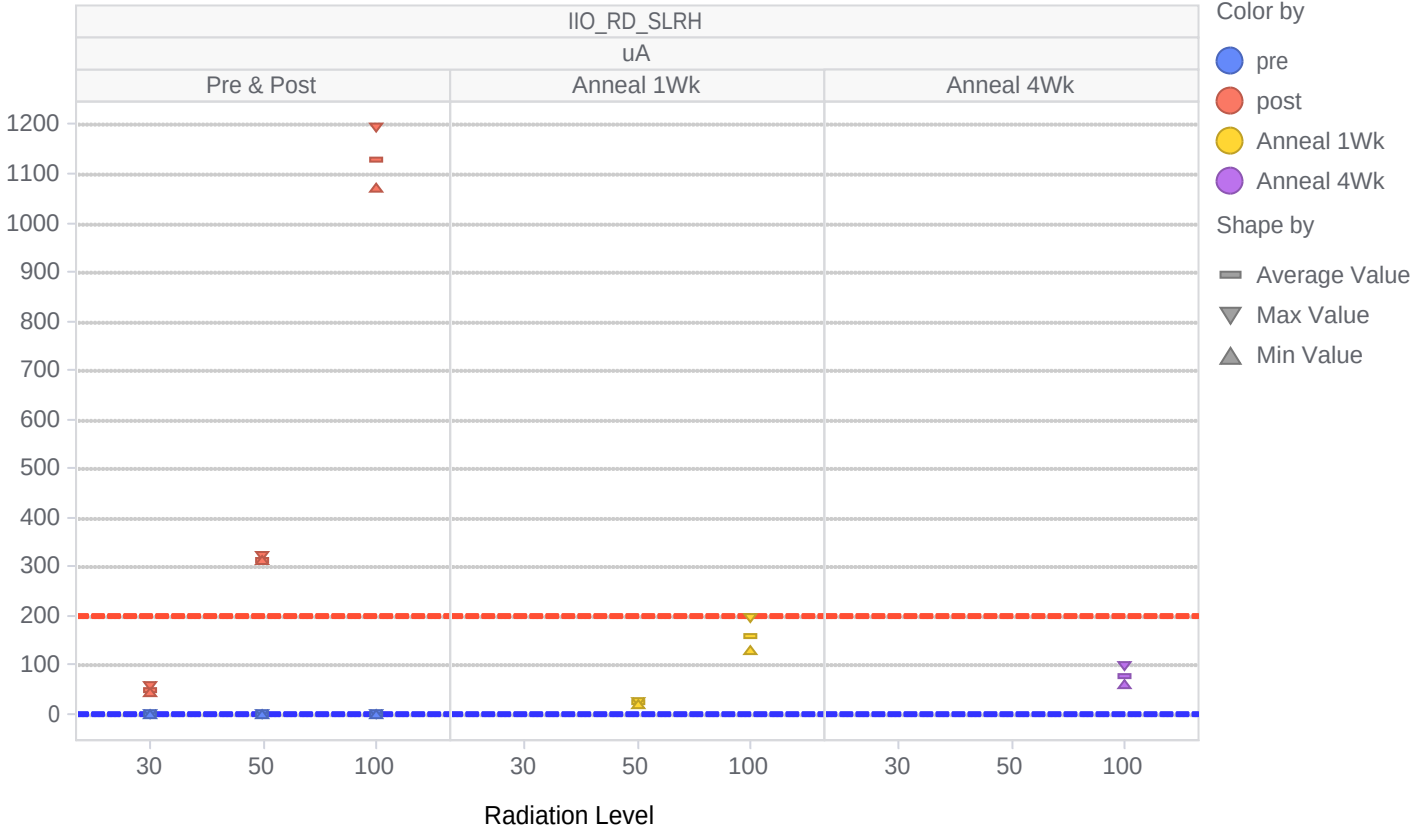
Radiation Level	PARTID	Delta		
		IIO_RD_SLRH		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	54.95	.	.
	2	44.87	.	.
	3	55.37	.	.
	4	47.47	.	.
	5	46.54	.	.
50	6	312.19	23.43	.
	7	315.57	22.16	.
	8	321.18	20.58	.
	9	310.93	23.72	.
	10	313.57	22.61	.
100	11	1193.74	177.50	84.60
	12	1124.23	149.35	72.25
	13	1184.43	127.58	58.25
	14	1069.54	193.91	95.24
	15	1074.94	136.66	64.56

Colors

Delta > 50% of Pre

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.00990	55.37613	.	.
	Avg	0.01	49.85	.	.
	Min	0.01	44.88	.	.
50	Max	0.00915	321.18958	23.72849	.
	Avg	0.01	314.70	22.51	.
	Min	0.01	310.94	20.59	.
100	Max	0.00900	1193.75146	193.91462	95.25097
	Avg	0.01	1129.38	157.01	74.99
	Min	0.01	1069.54	127.59	58.26



Radiation Level	PARTID	Recorded Value			
		IIO_RD_SLRL			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.01826	47.47844	.	.
	2	0.01596	38.12591	.	.
	3	0.01652	46.95886	.	.
	4	0.01641	39.06116	.	.
	5	0.01635	39.37292	.	.
50	6	0.01721	382.56796	25.87727	.
	7	0.01721	383.30833	25.12995	.
	8	0.01688	383.75819	23.71781	.
	9	0.01744	382.03792	25.38722	.
	10	0.01779	392.46152	24.70262	.
100	11	0.01680	1.47753k	218.77501	102.10386
	12	0.01734	1.39444k	182.35600	87.04227
	13	0.01728	1.47242k	154.20611	70.20628
	14	0.01698	1.31019k	238.83805	113.44899
	15	0.01711	1.32537k	160.24470	73.96752

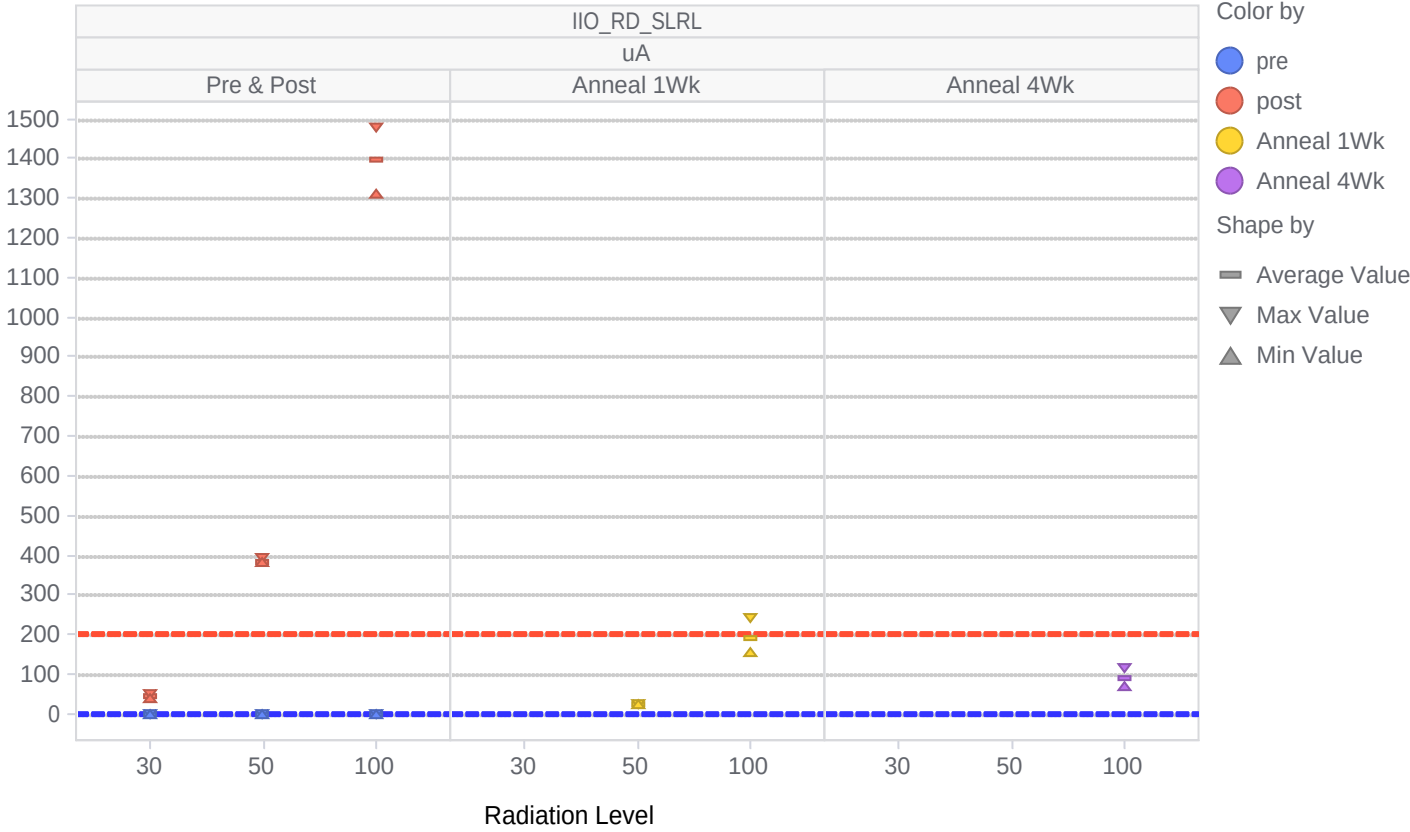
Radiation Level	PARTID	Delta		
		IIO_RD_SLRL		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	47.46	.	.
	2	38.11	.	.
	3	46.94	.	.
	4	39.04	.	.
	5	39.36	.	.
50	6	382.55	25.86	.
	7	383.29	25.11	.
	8	383.74	23.70	.
	9	382.02	25.37	.
	10	392.44	24.68	.
100	11	1477.51	218.76	102.09
	12	1394.42	182.34	87.02
	13	1472.40	154.19	70.19
	14	1310.17	238.82	113.43
	15	1325.36	160.23	73.95

Colors

Delta > 50% of Pre

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.01826	47.47844	.	.
	Avg	0.02	42.20	.	.
	Min	0.02	38.13	.	.
50	Max	0.01779	392.46152	25.87727	.
	Avg	0.02	384.83	24.96	.
	Min	0.02	382.04	23.72	.
100	Max	0.01734	1477.52929	238.83805	113.44899
	Avg	0.02	1395.99	190.88	89.35
	Min	0.02	1310.19	154.21	70.21



Radiation Level	PARTID	Recorded Value			
		IIO_RE_SLRH			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	3.13778	58.49364	.	.
	2	3.16085	47.58235	.	.
	3	3.12291	47.99802	.	.
	4	3.14675	48.30978	.	.
	5	3.14544	49.34895	.	.
50	6	3.10234	100.92717	29.87368	.
	7	3.20004	110.13969	7.90270	.
	8	3.18471	104.33749	31.35660	.
	9	3.08173	99.04864	7.12564	.
	10	3.12384	102.83486	33.15544	.
100	11	3.16289	388.03279	56.91285	99.60470
	12	3.11418	363.74823	46.96308	72.99841
	13	3.15892	384.69330	37.66309	71.24760
	14	3.16111	345.54495	60.22735	100.96466
	15	3.17661	343.66015	44.47642	72.13792

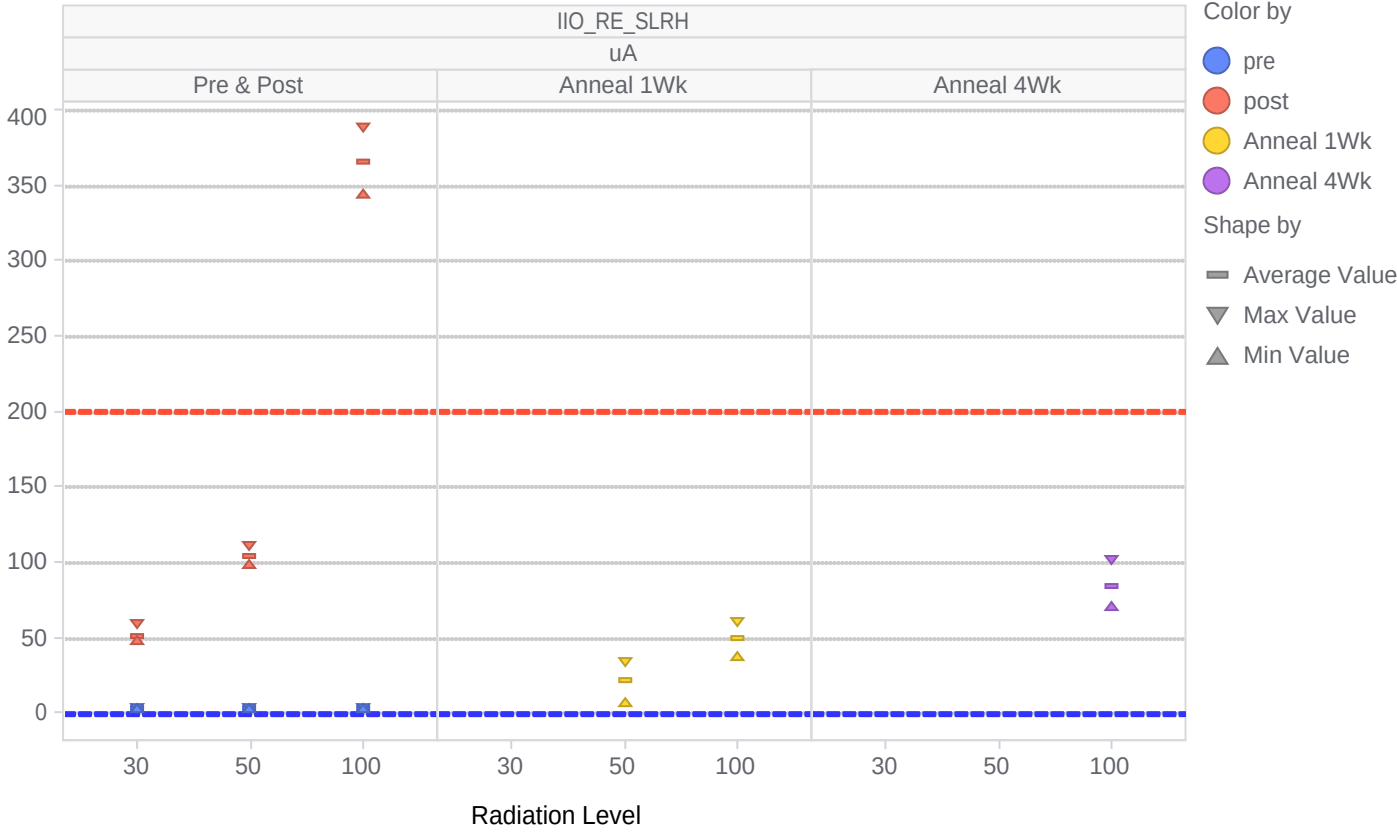
Radiation Level	PARTID	Delta		
		IIO_RE_SLRH		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	55.36	.	.
	2	44.42	.	.
	3	44.88	.	.
	4	45.16	.	.
	5	46.20	.	.
50	6	97.82	26.77	.
	7	106.94	4.70	.
	8	101.15	28.17	.
	9	95.97	4.04	.
	10	99.71	30.03	.
100	11	384.87	53.75	96.44
	12	360.63	43.85	69.88
	13	381.53	34.50	68.09
	14	342.38	57.07	97.80
	15	340.48	41.30	68.96

Colors

Delta > 50% of Pre

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	3.16085	58.49364	.	.
	Avg	3.14	50.35	.	.
	Min	3.12	47.58	.	.
50	Max	3.20004	110.13969	33.15544	.
	Avg	3.14	103.46	21.88	.
	Min	3.08	99.05	7.13	.
100	Max	3.17661	388.03279	60.22735	100.96466
	Avg	3.15	365.14	49.25	83.39
	Min	3.11	343.66	37.66	71.25



Radiation Level	PARTID	Recorded Value			
		IIO_RE_SLRL			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	3.15929	53.94410	.	.
	2	3.17832	44.62066	.	.
	3	3.14026	42.51015	.	.
	4	3.16379	45.30436	.	.
	5	3.16330	45.31882	.	.
50	6	3.12015	171.39823	32.31345	.
	7	3.21722	178.11473	10.93062	.
	8	3.20271	166.98721	34.53229	.
	9	3.09911	170.26841	8.78541	.
	10	3.14103	181.91032	35.27626	.
100	11	3.18381	671.44132	98.28015	117.12172
	12	3.13191	634.39843	80.01651	87.67992
	13	3.17614	673.66974	64.35929	83.20815
	14	3.17869	586.99859	105.08619	119.09188
	15	3.19394	595.30314	67.92268	81.65555

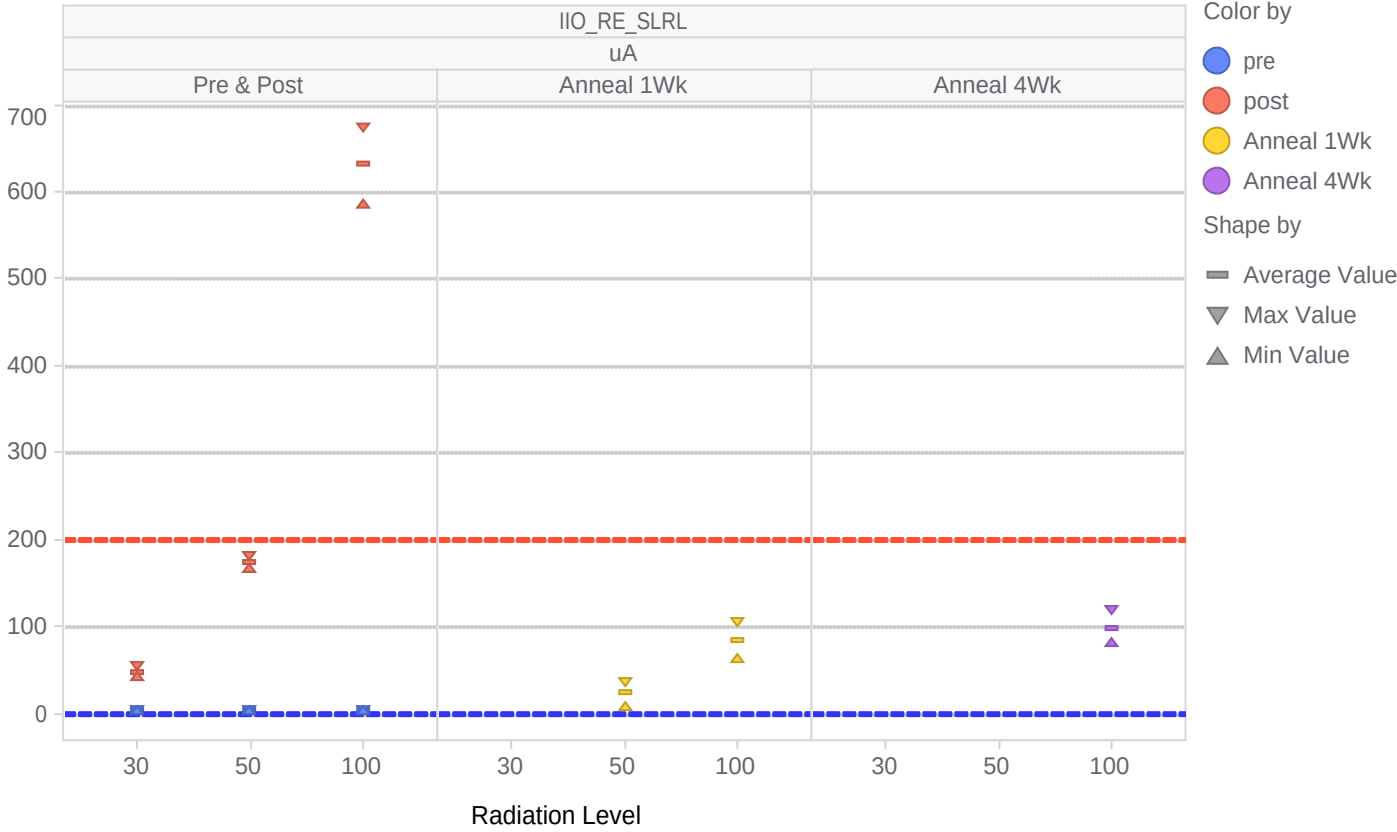
Radiation Level	PARTID	Delta		
		IIO_RE_SLRL		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	50.78	.	.
	2	41.44	.	.
	3	39.37	.	.
	4	42.14	.	.
	5	42.16	.	.
50	6	168.28	29.19	.
	7	174.90	7.71	.
	8	163.78	31.33	.
	9	167.17	5.69	.
	10	178.77	32.14	.
100	11	668.26	95.10	113.94
	12	631.27	76.88	84.55
	13	670.49	61.18	80.03
	14	583.82	101.91	115.91
	15	592.11	64.73	78.46

Colors

Delta > 50% of Pre

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	3.17832	53.94410	.	.
	Avg	3.16	46.34	.	.
	Min	3.14	42.51	.	.
50	Max	3.21722	181.91032	35.27626	.
	Avg	3.16	173.74	24.37	.
	Min	3.10	166.99	8.79	.
100	Max	3.19394	673.66974	105.08619	119.09188
	Avg	3.17	632.36	83.13	97.75
	Min	3.13	587.00	64.36	81.66



Radiation Level	PARTID	Recorded Value			
		IOSY_DH			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.00434	0.00496	.	.
	2	0.00309	0.00434	.	.
	3	0.00372	0.00372	.	.
	4	0.00309	0.00558	.	.
	5	0.00496	0.00621	.	.
50	6	0.00492	0.00305	0.00305	.
	7	0.00492	0.00367	0.00554	.
	8	0.00429	0.00367	0.00429	.
	9	0.00367	0.00367	0.00180	.
	10	0.00678	0.00305	0.00492	.
100	11	0.00741	0.00803	0.00492	0.00242
	12	0.00741	0.00741	0.00429	0.00492
	13	0.00429	0.00741	0.00616	0.00367
	14	0.00616	0.00678	0.00305	0.00367
	15	0.00367	0.00616	0.00492	0.00367

Radiation Level	PARTID	Delta		
		IOSY_DH		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	0.00	0.00
	12	0.00	0.00	0.00
	13	0.00	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

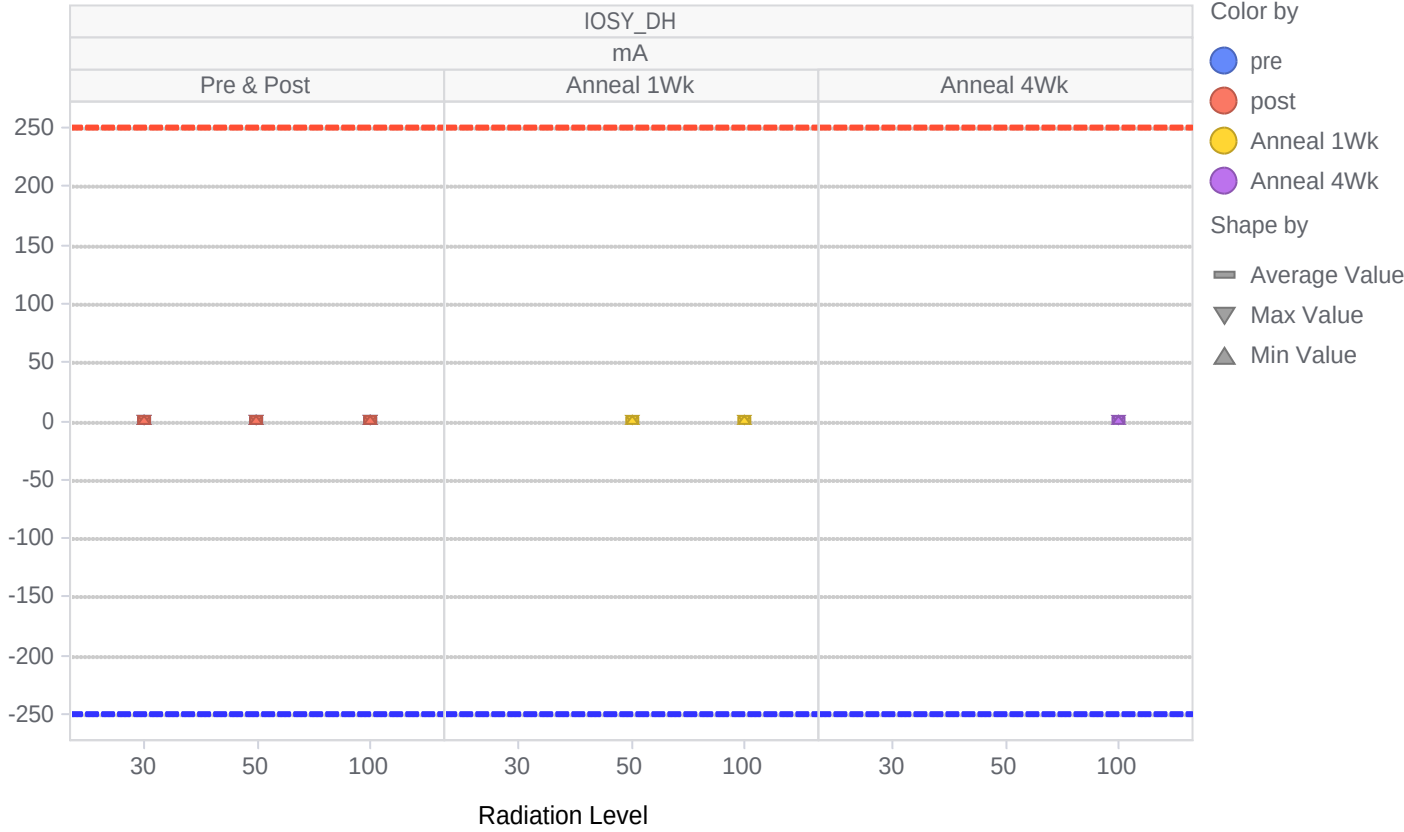
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.00496	0.00621	.	.
	Avg	0.00	0.00	.	.
	Min	0.00	0.00	.	.
50	Max	0.00678	0.00367	0.00554	.
	Avg	0.00	0.00	0.00	.
	Min	0.00	0.00	0.00	.
100	Max	0.00741	0.00803	0.00616	0.00492
	Avg	0.01	0.01	0.00	0.00
	Min	0.00	0.01	0.00	0.00



Radiation Level	PARTID	Recorded Value			
		IOSY_DL			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	25.21804	26.57798	.	.
	2	29.85765	29.99900	.	.
	3	30.02578	30.66839	.	.
	4	24.60408	28.85576	.	.
	5	28.35886	28.92114	.	.
50	6	22.05040	34.60651	21.05258	.
	7	21.98562	35.42307	24.49261	.
	8	23.69848	34.07646	20.83209	.
	9	27.71402	32.21912	20.03297	.
	10	24.53684	34.88866	20.22979	.
100	11	22.17435	22.08964	23.33473	19.24692
	12	24.42348	23.88533	21.44498	22.40667
	13	23.73647	17.09620	25.81680	20.12702
	14	23.97378	29.66480	22.88752	17.30797
	15	24.97097	33.70711	21.97566	19.04200

Radiation Level	PARTID	Delta		
		IOSY_DL		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	1.36	.	.
	2	0.14	.	.
	3	0.64	.	.
	4	4.25	.	.
	5	0.56	.	.
50	6	12.56	-1.00	.
	7	13.44	2.51	.
	8	10.38	-2.87	.
	9	4.51	-7.68	.
	10	10.35	-4.31	.
100	11	-0.08	1.16	-2.93
	12	-0.54	-2.98	-2.02
	13	-6.64	2.08	-3.61
	14	5.69	-1.09	-6.67
	15	8.74	-3.00	-5.93

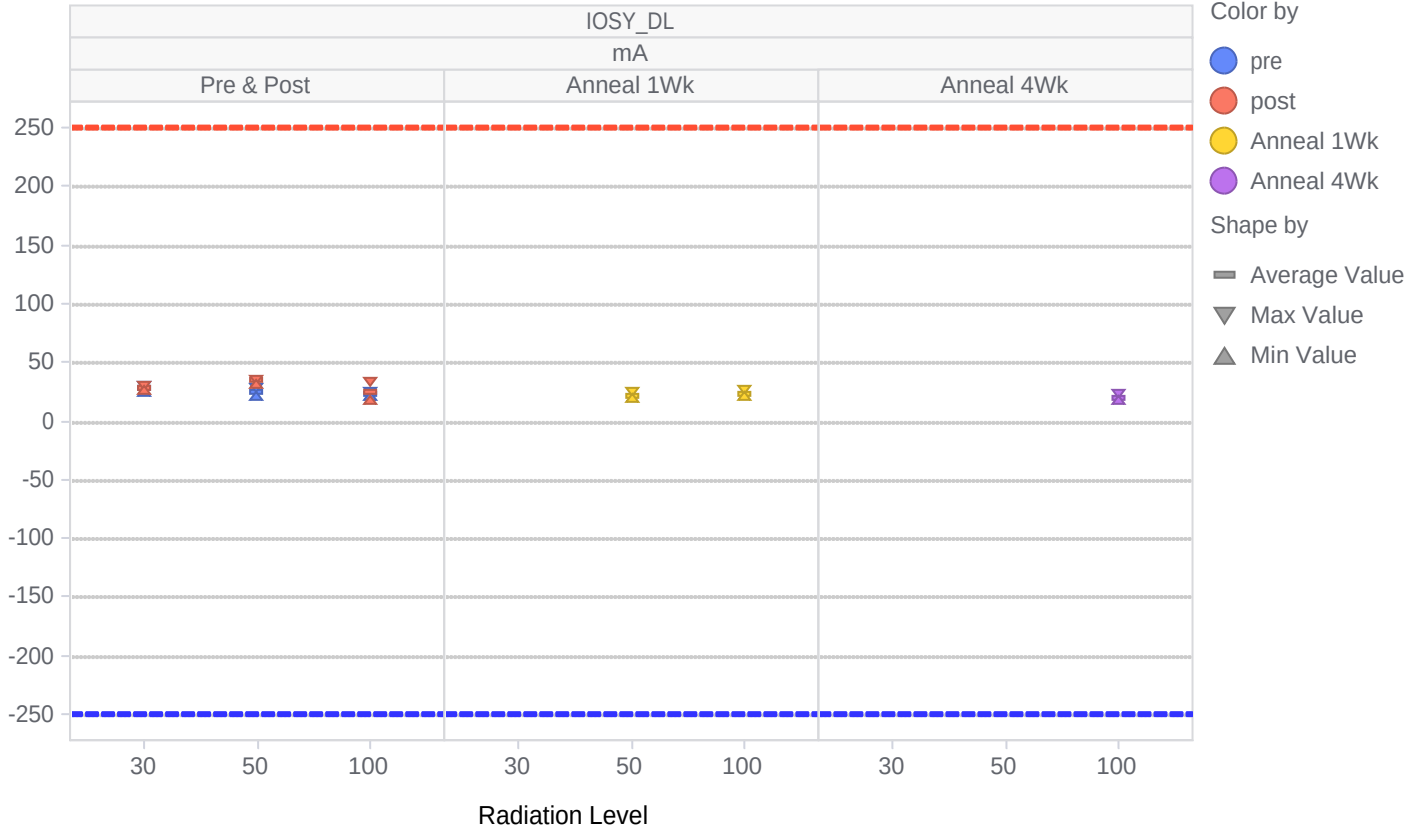
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	30.02578	30.66839	.	.
	Avg	27.61	29.00	.	.
	Min	24.60	26.58	.	.
50	Max	27.71402	35.42307	24.49261	.
	Avg	24.00	34.24	21.33	.
	Min	21.99	32.22	20.03	.
100	Max	24.97097	33.70711	25.81680	22.40667
	Avg	23.86	25.29	23.09	19.63
	Min	22.17	17.10	21.44	17.31



Radiation Level	PARTID	Recorded Value			
		IOSZ_DH			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	23.66820	26.43420	.	.
	2	29.00169	29.67561	.	.
	3	29.42048	30.24063	.	.
	4	23.63397	29.04463	.	.
	5	28.09068	29.02285	.	.
50	6	21.21315	35.98638	20.54385	.
	7	20.61925	33.51172	24.03992	.
	8	23.00730	51.07239	20.60928	.
	9	26.84551	88.06862	19.49191	.
	10	23.08832	55.63096	19.61966	.
100	11	21.00874	151.56463	12.83253	15.58390
	12	23.02413	155.12165	19.84775	20.25033
	13	22.40344	153.80803	24.51978	19.62527
	14	22.48009	155.35907	12.81383	15.08660
	15	23.38869	151.65998	21.99649	16.00143

Radiation Level	PARTID	Delta		
		IOSZ_DH		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	2.77	.	.
	2	0.67	.	.
	3	0.82	.	.
	4	5.41	.	.
	5	0.93	.	.
50	6	14.77	-0.67	.
	7	12.89	3.42	.
	8	28.07	-2.40	.
	9	61.22	-7.35	.
	10	32.54	-3.47	.
100	11	130.56	-8.18	-5.42
	12	132.10	-3.18	-2.77
	13	131.40	2.12	-2.78
	14	132.88	-9.67	-7.39
	15	128.27	-1.39	-7.39

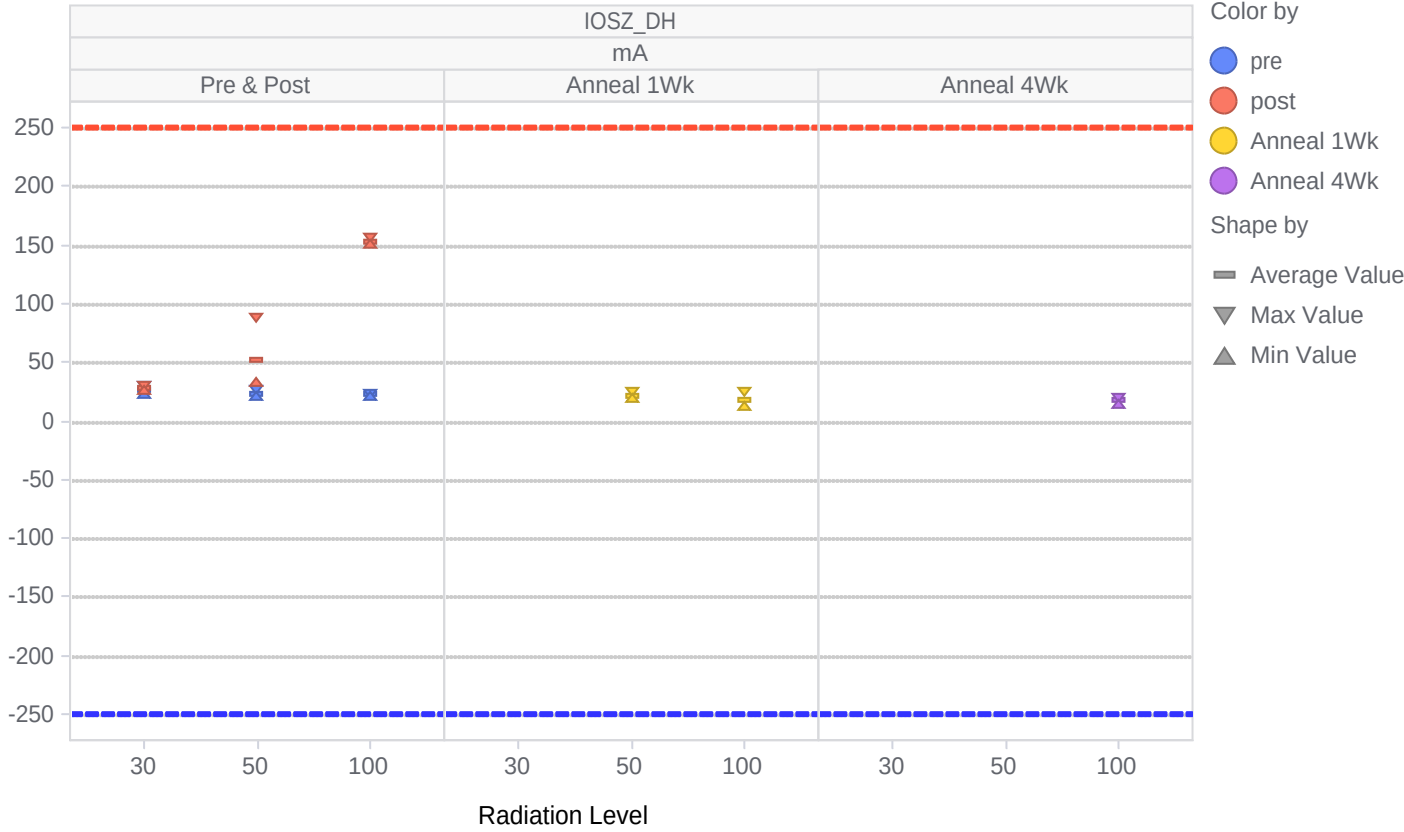
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	29.42048	30.24063	.	.
	Avg	26.76	28.88	.	.
	Min	23.63	26.43	.	.
50	Max	26.84551	88.06862	24.03992	.
	Avg	22.95	52.85	20.86	.
	Min	20.62	33.51	19.49	.
100	Max	23.38869	155.35907	24.51978	20.25033
	Avg	22.46	153.50	18.40	17.31
	Min	21.01	151.56	12.81	15.09



Radiation Level	PARTID	Recorded Value			
		IOSZ_DL			
		mA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	0.00566	0.00815	.	.
	2	0.00379	0.00566	.	.
	3	0.00628	0.00690	.	.
	4	0.00441	0.00504	.	.
	5	0.00317	0.00628	.	.
50	6	0.00480	-0.00081	0.00480	.
	7	0.00231	0.00293	-0.00019	.
	8	0.00231	0.00418	0.00293	.
	9	0.00168	0.00168	0.00293	.
	10	0.00480	0.00231	0.00044	.
100	11	0.00542	0.00480	0.00293	0.00605
	12	0.00542	0.00729	0.00106	0.00231
	13	0.00293	0.00293	-0.00081	0.00231
	14	0.00605	0.00418	0.00106	0.00106
	15	0.00293	0.00293	-0.00019	0.00231

Radiation Level	PARTID	Delta		
		IOSZ_DL		
		mA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	-0.01	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	0.00	0.00
	12	0.00	0.00	0.00
	13	0.00	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

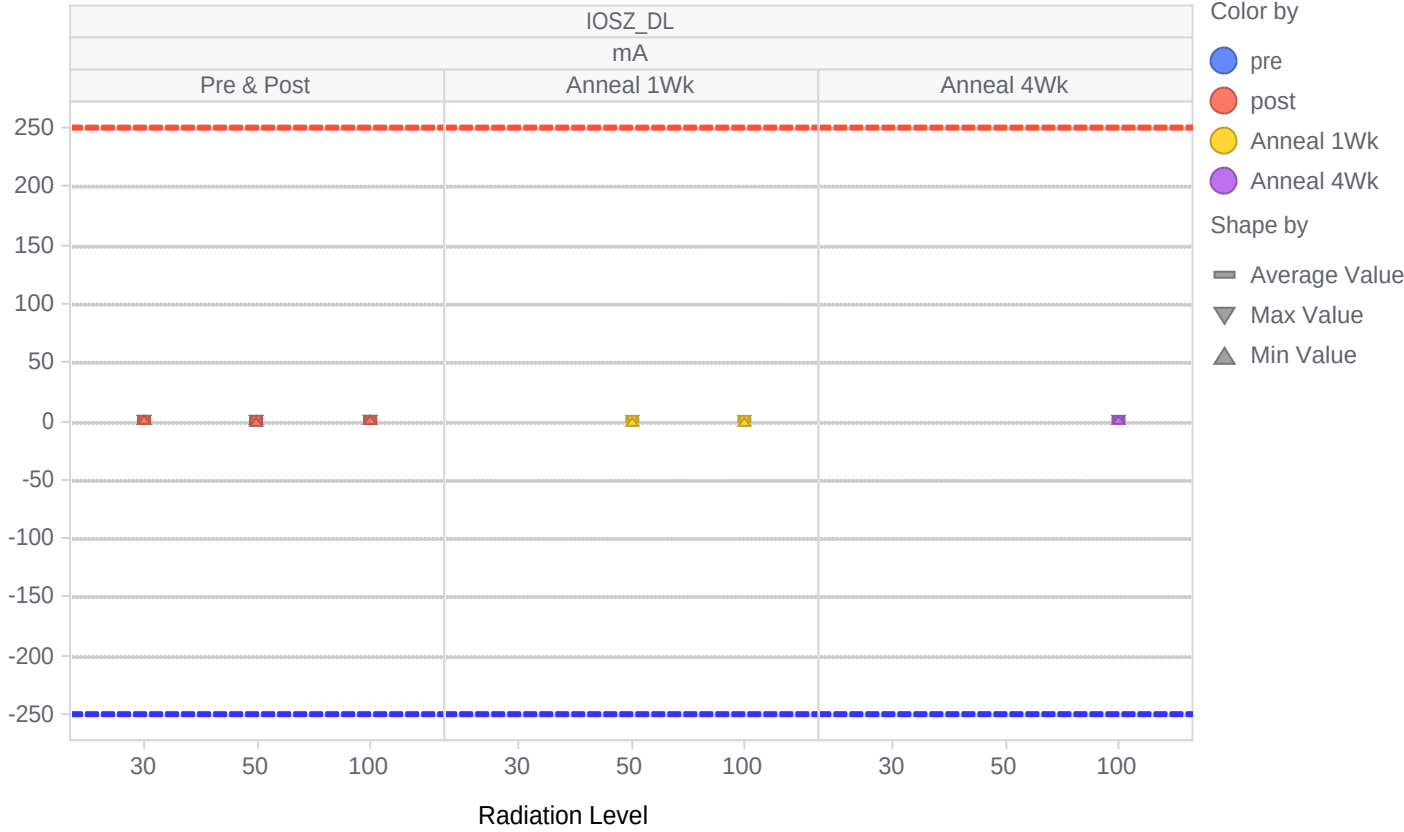
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	0.00628	0.00815	.	.
	Avg	0.00	0.01	.	.
	Min	0.00	0.01	.	.
50	Max	0.00480	0.00418	0.00480	.
	Avg	0.00	0.00	0.00	.
	Min	0.00	0.00	0.00	.
100	Max	0.00605	0.00729	0.00293	0.00605
	Avg	0.00	0.00	0.00	0.00
	Min	0.00	0.00	0.00	0.00



Radiation Level	PARTID	Recorded Value			
		IOZ_RGND			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	-0.00348	-0.00290	.	.
	2	-0.00333	-0.00278	.	.
	3	-0.00343	-0.00233	.	.
	4	-0.00325	-0.00254	.	.
	5	-0.00326	-0.00250	.	.
50	6	-0.00287	-0.00251	-0.00274	.
	7	-0.00313	-0.00265	-0.00284	.
	8	-0.00301	-0.00263	-0.00282	.
	9	-0.00312	-0.00249	-0.00277	.
	10	-0.00279	-0.00252	-0.00288	.
100	11	-0.00295	-0.00454	-0.00270	-0.00252
	12	-0.00298	-0.00415	-0.00307	-0.00249
	13	-0.00304	-0.00419	-0.00259	-0.00288
	14	-0.00310	0.08418	-0.00285	-0.00271
	15	-0.00298	0.05913	-0.00284	-0.00268

Radiation Level	PARTID	Delta		
		IOZ_RGND		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	0.00	0.00
	12	0.00	0.00	0.00
	13	0.00	0.00	0.00
	14	0.09	0.00	0.00
	15	0.06	0.00	0.00

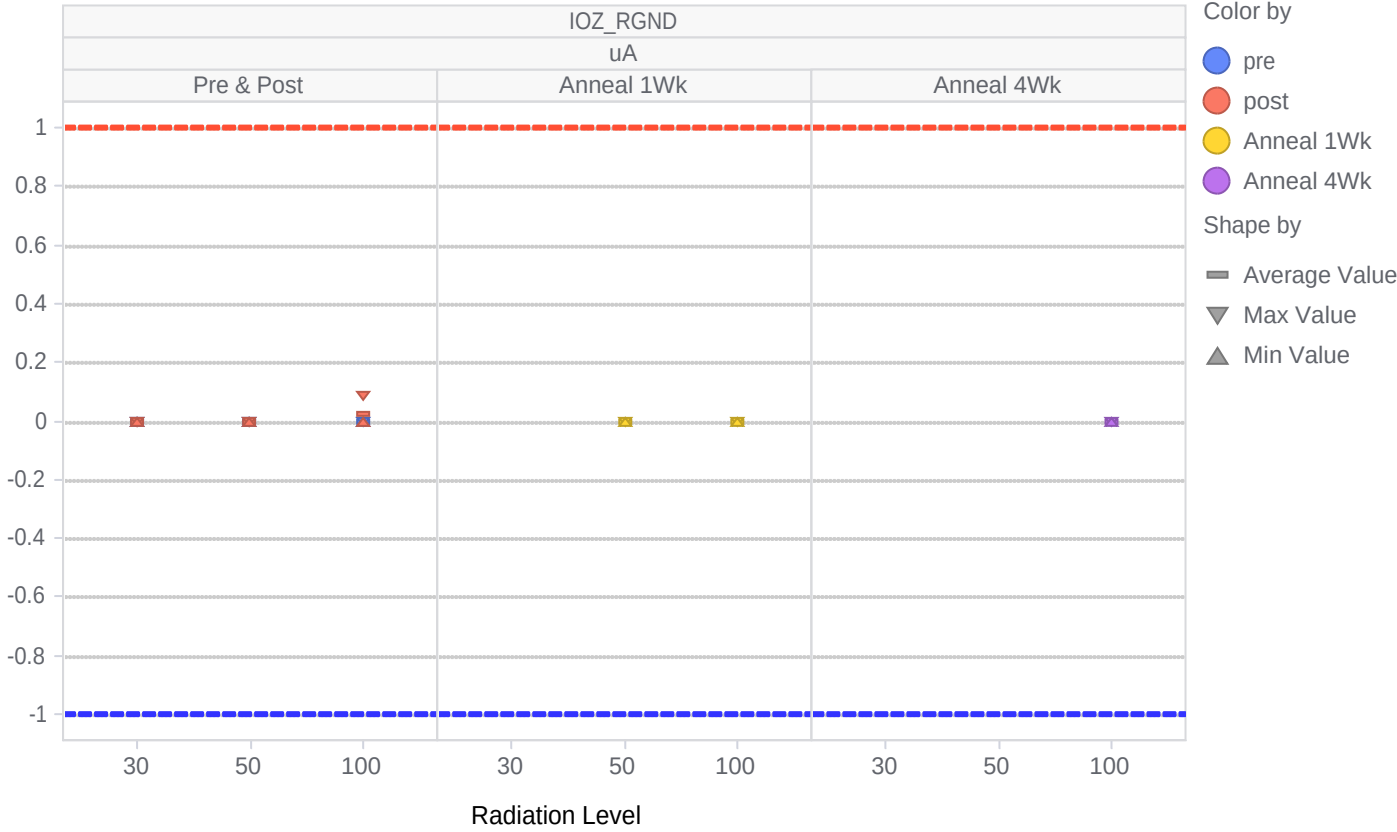
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	-0.00325	-0.00233	.	.
	Avg	0.00	0.00	.	.
	Min	0.00	0.00	.	.
50	Max	-0.00279	-0.00249	-0.00274	.
	Avg	0.00	0.00	0.00	.
	Min	0.00	0.00	0.00	.
100	Max	-0.00295	0.08418	-0.00259	-0.00249
	Avg	0.00	0.03	0.00	0.00
	Min	0.00	0.00	0.00	0.00



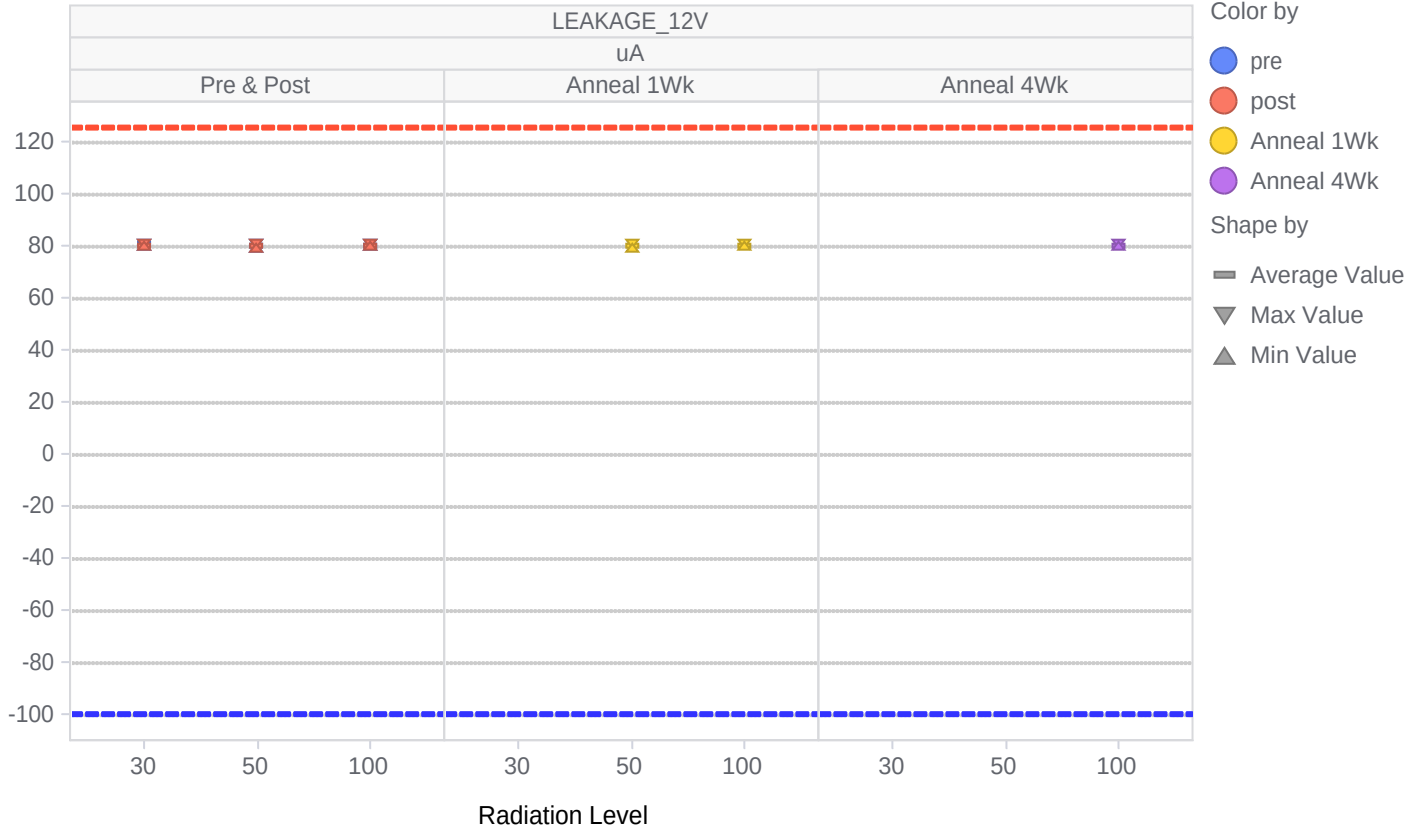
Radiation Level	PARTID	Recorded Value			
		LEAKAGE_12V			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	79.94825	79.89618	.	.
	2	80.73971	80.69805	.	.
	3	79.96069	79.95025	.	.
	4	80.61811	79.82503	.	.
	5	79.84590	79.85634	.	.
50	6	79.65264	79.46476	79.54826	.
	7	80.44586	80.26843	79.15164	.
	8	79.92742	79.36039	79.41257	.
	9	79.19339	79.14121	79.43345	.
	10	79.60045	79.33952	80.42499	.
100	11	79.68394	79.64220	79.64220	79.59001
	12	79.50021	80.00750	79.98662	79.96575
	13	79.61089	79.54826	80.37280	80.35193
	14	80.28930	80.38324	79.57957	79.55870
	15	79.68394	80.38324	80.35193	80.35193

Radiation Level	PARTID	Delta		
		LEAKAGE_12V		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.05	.	.
	2	-0.04	.	.
	3	-0.01	.	.
	4	-0.79	.	.
	5	0.01	.	.
50	6	-0.19	-0.10	.
	7	-0.18	-1.29	.
	8	-0.57	-0.51	.
	9	-0.05	0.24	.
	10	-0.26	0.82	.
100	11	-0.04	-0.04	-0.09
	12	0.51	0.49	0.47
	13	-0.06	0.76	0.74
	14	0.09	-0.71	-0.73
	15	0.70	0.67	0.67

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	80.73971	80.69805	.	.
	Avg	80.22	80.05	.	.
	Min	79.85	79.83	.	.
50	Max	80.44586	80.26843	80.42499	.
	Avg	79.76	79.51	79.59	.
	Min	79.19	79.14	79.15	.
100	Max	80.28930	80.38324	80.37280	80.35193
	Avg	79.75	79.99	79.99	79.96
	Min	79.50	79.55	79.58	79.56



Radiation Level	PARTID	Recorded Value			
		LEAKAGE_N7V			
		uA			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	-43.15329	-43.21590	.	.
	2	-43.59156	-43.69592	.	.
	3	-43.17416	-43.29938	.	.
	4	-43.54983	-43.24720	.	.
	5	-43.12199	-43.22634	.	.
50	6	-42.83577	-43.04452	-42.91927	.
	7	-43.18020	-43.46201	-42.70009	.
	8	-43.02364	-42.81490	-42.74184	.
	9	-42.73140	-42.78359	-42.80446	.
	10	-42.78359	-42.96102	-43.33676	.
100	11	-42.81490	-43.19064	-43.02364	-42.98189
	12	-42.78359	-43.40982	-43.16976	-43.12801
	13	-42.84621	-43.21151	-43.40982	-43.34720
	14	-43.18020	-43.56638	-42.95058	-43.16496
	15	-42.80446	-43.59769	-43.37851	-43.36807

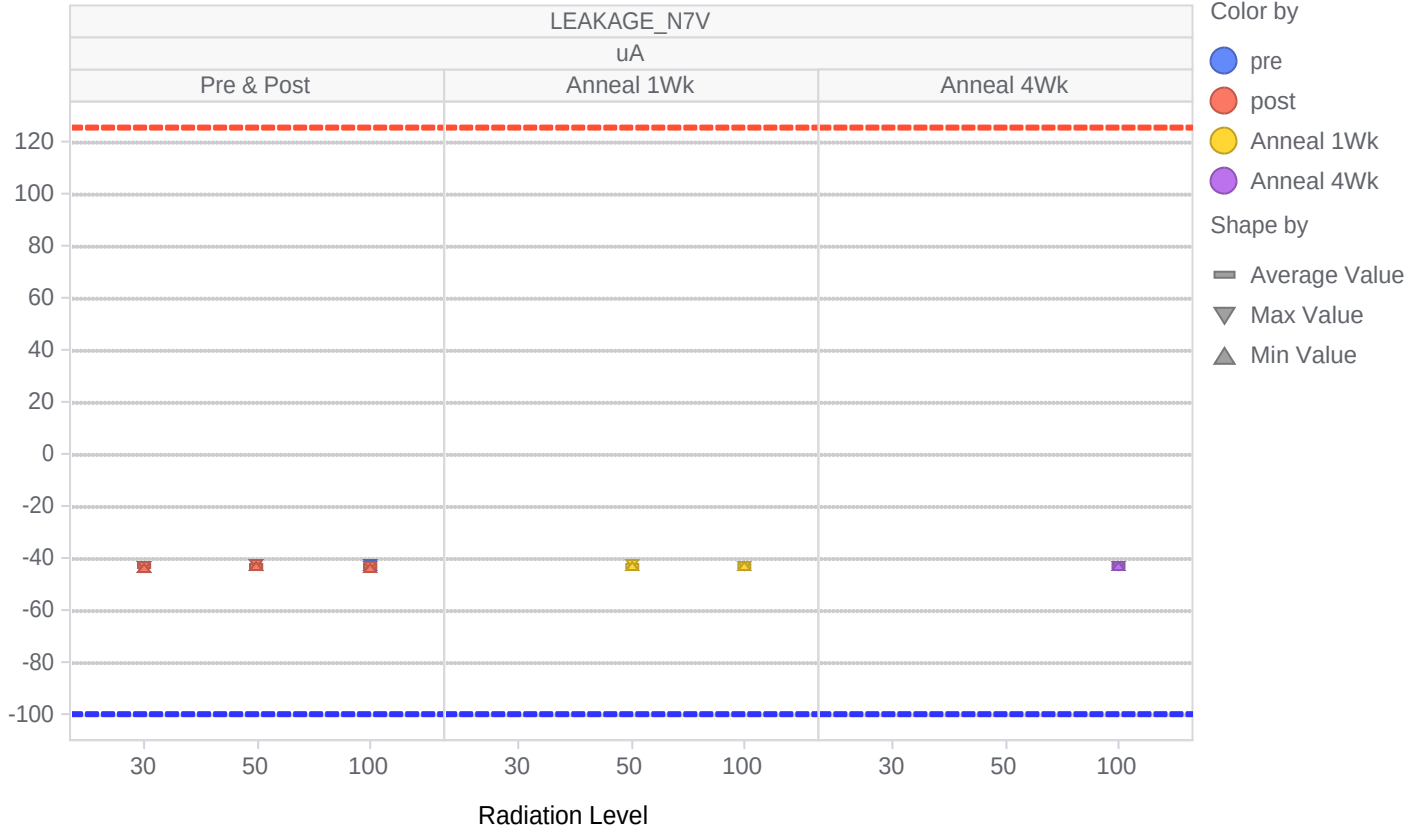
Radiation Level	PARTID	Delta		
		LEAKAGE_N7V		
		uA		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.06	.	.
	2	-0.10	.	.
	3	-0.13	.	.
	4	0.30	.	.
	5	-0.10	.	.
50	6	-0.21	-0.08	.
	7	-0.28	0.48	.
	8	0.21	0.28	.
	9	-0.05	-0.07	.
	10	-0.18	-0.55	.
100	11	-0.38	-0.21	-0.17
	12	-0.63	-0.39	-0.34
	13	-0.37	-0.56	-0.50
	14	-0.39	0.23	0.02
	15	-0.79	-0.57	-0.56

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	-43.12199	-43.21590	.	.
	Avg	-43.32	-43.34	.	.
	Min	-43.59	-43.70	.	.
50	Max	-42.73140	-42.78359	-42.70009	.
	Avg	-42.91	-43.01	-42.90	.
	Min	-43.18	-43.46	-43.34	.
100	Max	-42.78359	-43.19064	-42.95058	-42.98189
	Avg	-42.89	-43.40	-43.19	-43.20
	Min	-43.18	-43.60	-43.41	-43.37



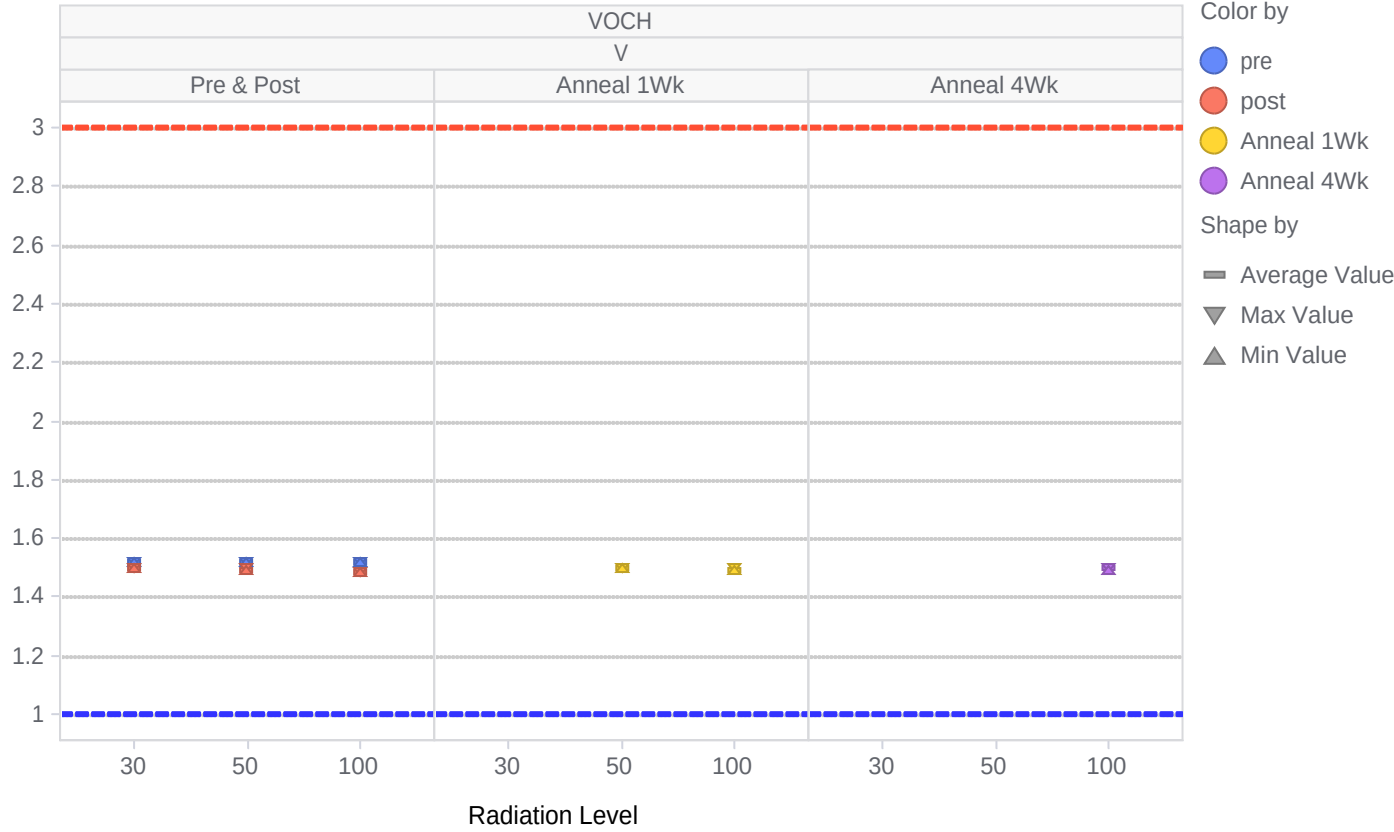
Radiation Level	PARTID	Recorded Value			
		VOCH			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	1.52123	1.50038	.	.
	2	1.52019	1.49977	.	.
	3	1.52100	1.50046	.	.
	4	1.52003	1.50011	.	.
	5	1.52097	1.50016	.	.
50	6	1.51848	1.49227	1.49872	.
	7	1.51763	1.49487	1.49872	.
	8	1.51854	1.49582	1.50023	.
	9	1.51832	1.49284	1.50095	.
	10	1.51827	1.49467	1.50031	.
100	11	1.52121	1.48633	1.49568	1.49720
	12	1.51912	1.48515	1.49437	1.49576
	13	1.52202	1.48399	1.49424	1.49537
	14	1.51954	1.48521	1.49354	1.49479
	15	1.52093	1.48521	1.49407	1.49532

Radiation Level	PARTID	Delta		
		VOCH		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.02	.	.
	2	-0.02	.	.
	3	-0.02	.	.
	4	-0.02	.	.
	5	-0.02	.	.
50	6	-0.03	-0.02	.
	7	-0.02	-0.02	.
	8	-0.02	-0.02	.
	9	-0.03	-0.02	.
	10	-0.02	-0.02	.
100	11	-0.03	-0.03	-0.02
	12	-0.03	-0.02	-0.02
	13	-0.04	-0.03	-0.03
	14	-0.03	-0.03	-0.02
	15	-0.04	-0.03	-0.03

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	1.52123	1.50046	.	.
	Avg	1.52	1.50	.	.
	Min	1.52	1.50	.	.
50	Max	1.51854	1.49582	1.50095	.
	Avg	1.52	1.49	1.50	.
	Min	1.52	1.49	1.50	.
100	Max	1.52202	1.48633	1.49568	1.49720
	Avg	1.52	1.49	1.49	1.50
	Min	1.52	1.48	1.49	1.49



Radiation Level	PARTID	Recorded Value			
		VOCL			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	1.52430	1.50567	.	.
	2	1.52363	1.50518	.	.
	3	1.52427	1.50576	.	.
	4	1.52327	1.50556	.	.
	5	1.52410	1.50549	.	.
50	6	1.52052	4.63512	1.50255	.
	7	1.51998	4.63345	1.50268	.
	8	1.52095	4.63301	1.50502	.
	9	1.52045	4.63468	1.50580	.
	10	1.52042	4.63374	1.50530	.
100	11	1.52353	0.28209	4.63363	1.50452
	12	1.52137	0.28539	4.63567	1.50307
	13	1.52422	0.28328	1.91373	1.49978
	14	1.52175	0.25545	4.63518	1.50171
	15	1.52322	0.28011	4.63737	1.50246

Radiation Level	PARTID	Delta		
		VOCL		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.02	.	.
	2	-0.02	.	.
	3	-0.02	.	.
	4	-0.02	.	.
	5	-0.02	.	.
50	6	3.11	-0.02	.
	7	3.11	-0.02	.
	8	3.11	-0.02	.
	9	3.11	-0.01	.
	10	3.11	-0.02	.
100	11	-1.24	3.11	-0.02
	12	-1.24	3.11	-0.02
	13	-1.24	0.39	-0.02
	14	-1.27	3.11	-0.02
	15	-1.24	3.11	-0.02

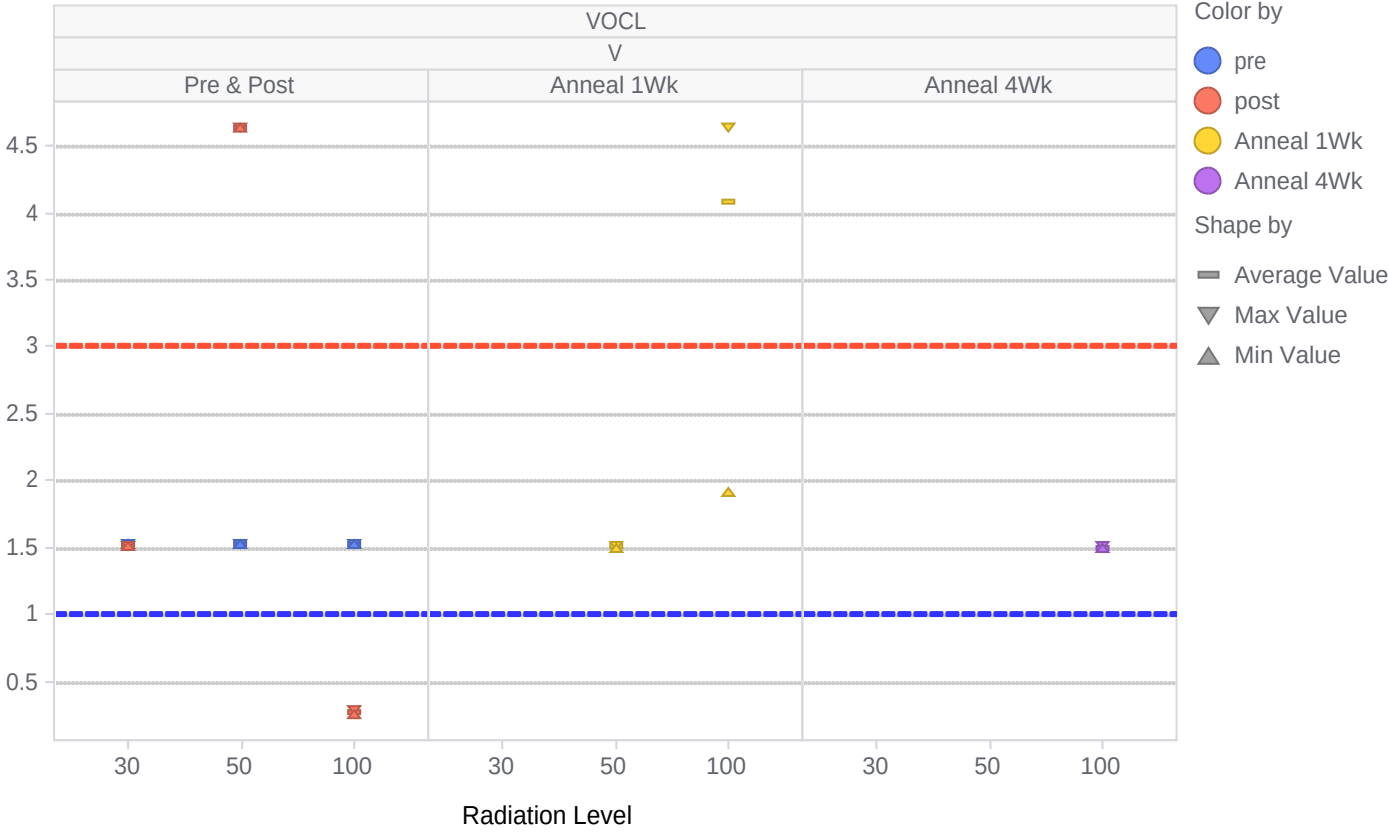
Colors

Delta > 50% of Pre

All other values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	1.52430	1.50576	.	.
	Avg	1.52	1.51	.	.
	Min	1.52	1.51	.	.
50	Max	1.52095	4.63512	1.50580	.
	Avg	1.52	4.63	1.50	.
	Min	1.52	4.63	1.50	.
100	Max	1.52422	0.28539	4.63737	1.50452
	Avg	1.52	0.28	4.09	1.50
	Min	1.52	0.26	1.91	1.50



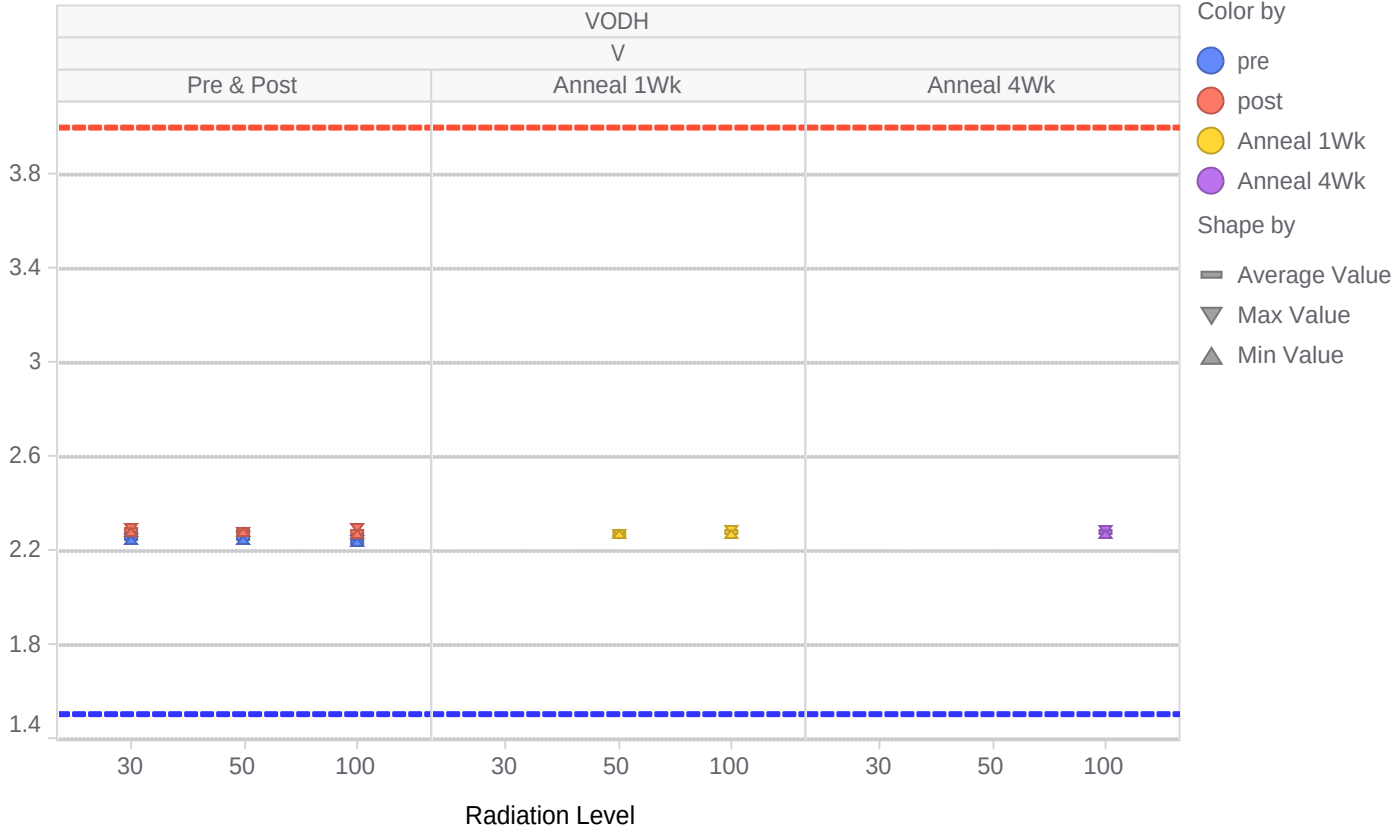
Radiation Level	PARTID	Recorded Value			
		VODH			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.24552	2.28060	.	.
	2	2.25330	2.28982	.	.
	3	2.24261	2.27910	.	.
	4	2.25324	2.28017	.	.
	5	2.24393	2.27889	.	.
50	6	2.24460	2.27656	2.27096	.
	7	2.25692	2.27324	2.27074	.
	8	2.24744	2.27259	2.26724	.
	9	2.24319	2.27643	2.26586	.
	10	2.24307	2.27346	2.26618	.
100	11	2.23769	2.27018	2.26905	2.26627
	12	2.23925	2.28031	2.27656	2.27334
	13	2.23303	2.27350	2.28562	2.28306
	14	2.24063	2.28900	2.27184	2.26959
	15	2.23653	2.29050	2.28440	2.28134

Radiation Level	PARTID	Delta		
		VODH		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.04	.	.
	2	0.04	.	.
	3	0.04	.	.
	4	0.03	.	.
	5	0.03	.	.
50	6	0.03	0.03	.
	7	0.02	0.01	.
	8	0.03	0.02	.
	9	0.03	0.02	.
	10	0.03	0.02	.
100	11	0.03	0.03	0.03
	12	0.04	0.04	0.03
	13	0.04	0.05	0.05
	14	0.05	0.03	0.03
	15	0.05	0.05	0.04

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.25330	2.28982	.	.
	Avg	2.25	2.28	.	.
	Min	2.24	2.28	.	.
50	Max	2.25692	2.27656	2.27096	.
	Avg	2.25	2.27	2.27	.
	Min	2.24	2.27	2.27	.
100	Max	2.24063	2.29050	2.28562	2.28306
	Avg	2.24	2.28	2.28	2.27
	Min	2.23	2.27	2.27	2.27



Radiation Level	PARTID	Recorded Value			
		VODH_60Z_3V			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	1.95962	2.00945	.	.
	2	1.97055	2.02232	.	.
	3	1.95528	2.00730	.	.
	4	1.97049	2.00830	.	.
	5	1.95728	2.00642	.	.
50	6	1.95764	2.00461	1.99523	.
	7	1.97527	1.99964	1.99454	.
	8	1.96177	1.99851	1.99016	.
	9	1.95548	2.00414	1.98844	.
	10	1.95504	2.00032	1.98838	.
100	11	1.94773	2.00411	1.99401	1.98919
	12	1.95026	2.01461	2.00386	1.99870
	13	1.94094	2.00855	2.01671	2.01198
	14	1.95173	2.02565	1.99748	1.99376
	15	1.94641	2.02706	2.01536	2.01055

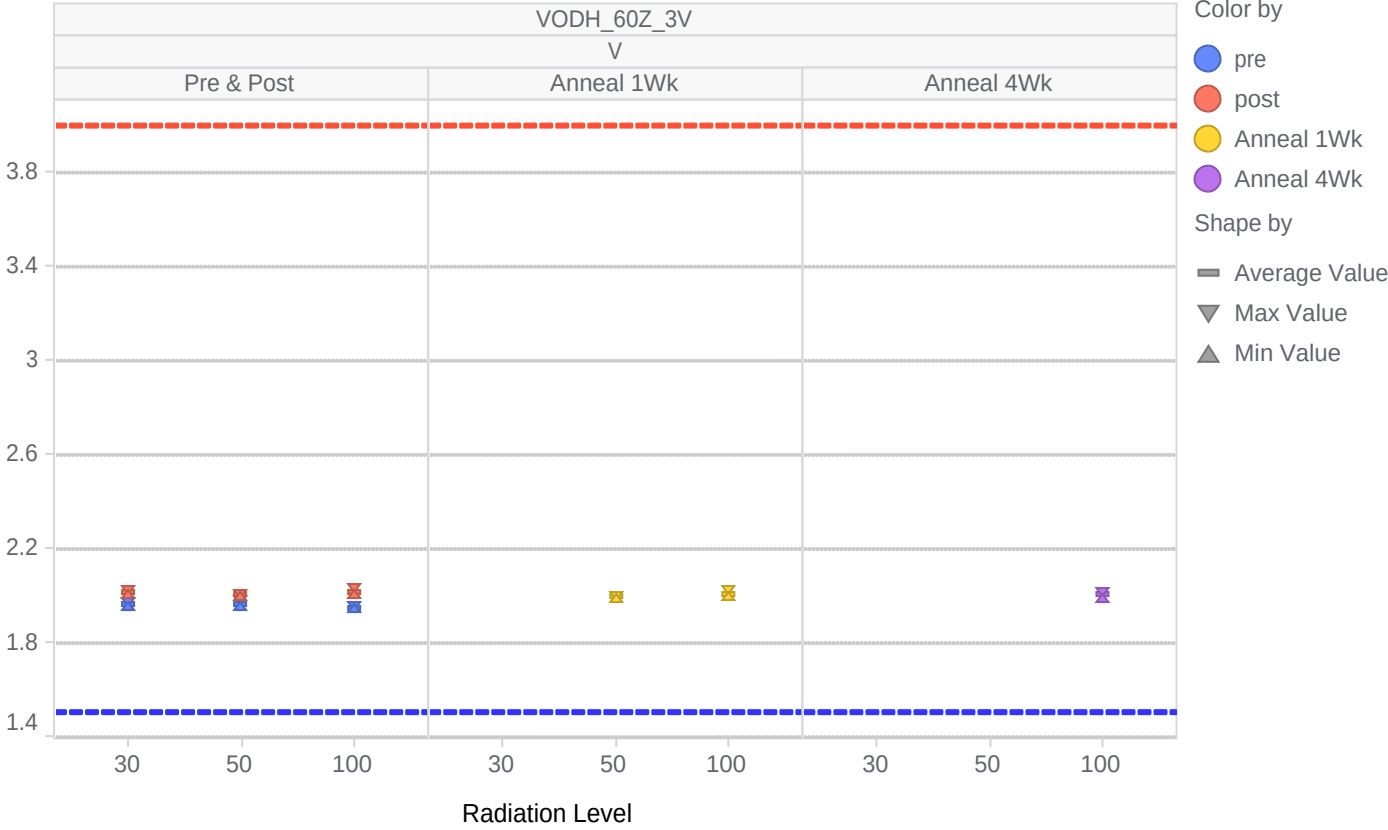
Radiation Level	PARTID	Delta		
		VODH_60Z_3V		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.05	.	.
	2	0.05	.	.
	3	0.05	.	.
	4	0.04	.	.
	5	0.05	.	.
50	6	0.05	0.04	.
	7	0.02	0.02	.
	8	0.04	0.03	.
	9	0.05	0.03	.
	10	0.05	0.03	.
100	11	0.06	0.05	0.04
	12	0.06	0.05	0.05
	13	0.07	0.08	0.07
	14	0.07	0.05	0.04
	15	0.08	0.07	0.06

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	1.97055	2.02232	.	.
	Avg	1.96	2.01	.	.
	Min	1.96	2.01	.	.
50	Max	1.97527	2.00461	1.99523	.
	Avg	1.96	2.00	1.99	.
	Min	1.96	2.00	1.99	.
100	Max	1.95173	2.02706	2.01671	2.01198
	Avg	1.95	2.02	2.01	2.00
	Min	1.94	2.00	1.99	1.99



Radiation Level	PARTID	Recorded Value			
		VODL			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.24686	2.20690	.	.
	2	2.25333	2.21756	.	.
	3	2.24342	2.20443	.	.
	4	2.25380	2.20606	.	.
	5	2.24549	2.20425	.	.
50	6	2.24646	2.24646	2.20228	.
	7	2.25834	2.25834	2.20147	.
	8	2.24900	2.24531	2.19553	.
	9	2.24496	2.24646	2.19428	.
	10	2.24531	2.25834	2.19553	.
100	11	2.23924	0.75697		2.18859
	12	2.24137	0.77482		2.20085
	13	2.23468	0.77297	3.33421	2.18859
	14	2.24196	1.11191		2.19484
	15	2.23746	1.11160		2.21229

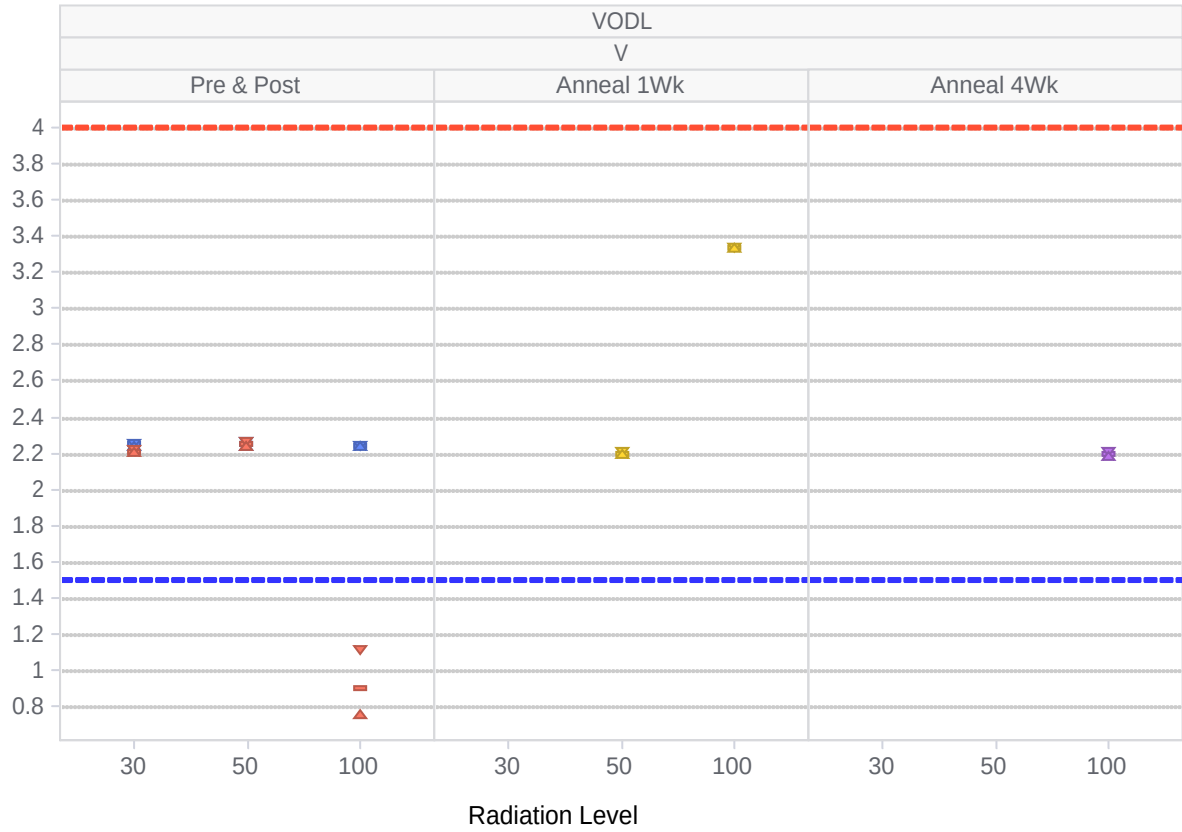
Radiation Level	PARTID	Delta		
		VODL		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.04	.	.
	2	-0.04	.	.
	3	-0.04	.	.
	4	-0.05	.	.
	5	-0.04	.	.
50	6	0.00	-0.04	.
	7	0.00	-0.06	.
	8	0.00	-0.05	.
	9	0.00	-0.05	.
	10	0.01	-0.05	.
100	11	-1.48		-0.05
	12	-1.47		-0.04
	13	-1.46	1.10	-0.05
	14	-1.13		-0.05
	15	-1.13		-0.03

Colors

All values
(Empty)

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.25380	2.21756	.	.
	Avg	2.25	2.21	.	.
	Min	2.24	2.20	.	.
50	Max	2.25834	2.25834	2.20228	.
	Avg	2.25	2.25	2.20	.
	Min	2.24	2.25	2.19	.
100	Max	2.24196	1.11191	3.33421	2.21229
	Avg	2.24	0.91	3.33	2.20
	Min	2.23	0.76	3.33	2.19



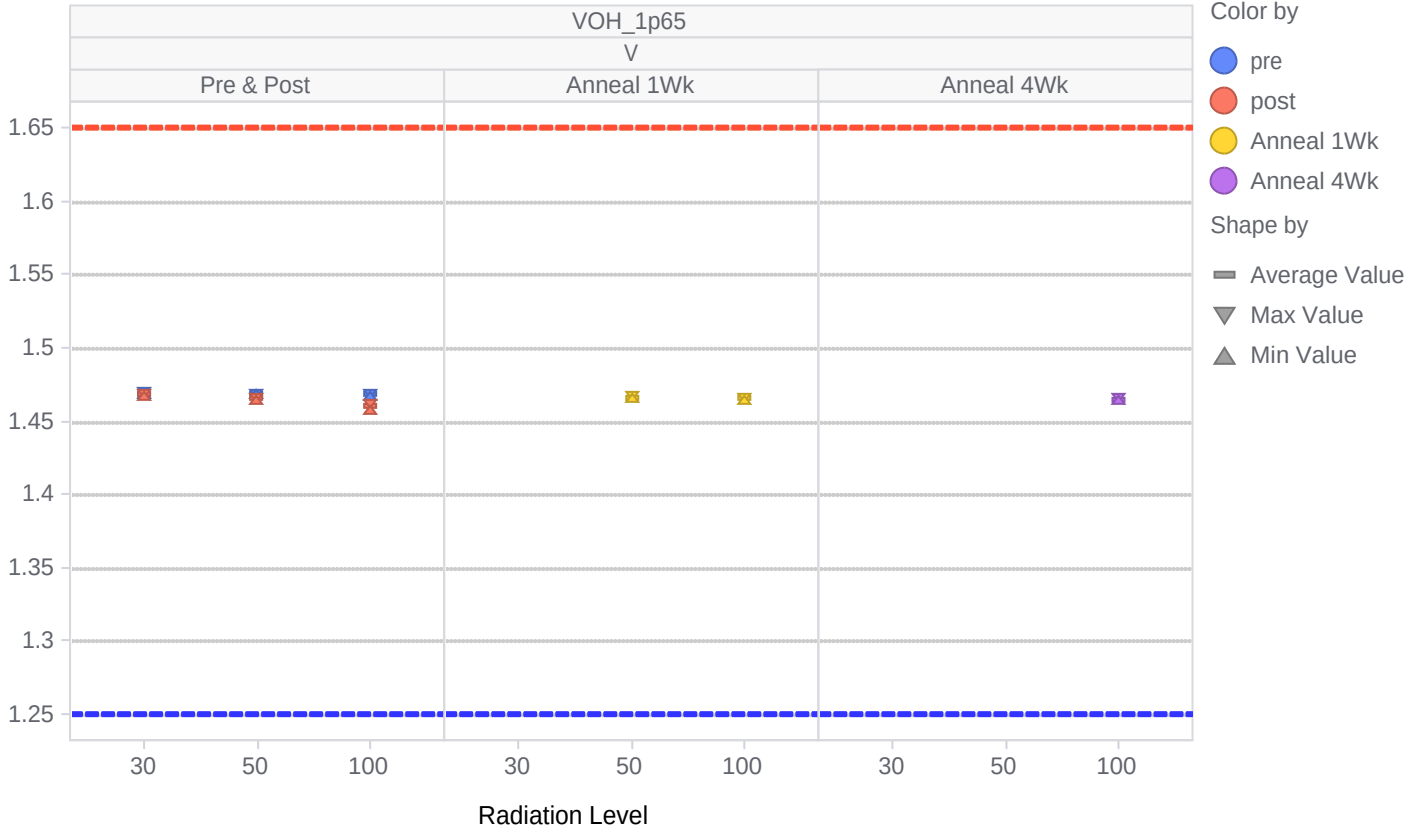
Radiation Level	PARTID	Recorded Value			
		VOH_1p65			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	1.46869	1.46750	.	.
	2	1.46894	1.46806	.	.
	3	1.46919	1.46806	.	.
	4	1.46919	1.46781	.	.
	5	1.46869	1.46763	.	.
50	6	1.46855	1.46487	1.46581	.
	7	1.46899	1.46568	1.46687	.
	8	1.46880	1.46493	1.46606	.
	9	1.46849	1.46512	1.46649	.
	10	1.46849	1.46499	1.46656	.
100	11	1.46749	1.45812	1.46424	1.46368
	12	1.46843	1.45981	1.46537	1.46499
	13	1.46830	1.45931	1.46593	1.46606
	14	1.46868	1.46081	1.46512	1.46499
	15	1.46780	1.46118	1.46556	1.46531

Radiation Level	PARTID	Delta		
		VOH_1p65		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	-0.01	0.00	0.00
	12	-0.01	0.00	0.00
	13	-0.01	0.00	0.00
	14	-0.01	0.00	0.00
	15	-0.01	0.00	0.00

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	1.46919	1.46806	.	.
	Avg	1.47	1.47	.	.
	Min	1.47	1.47	.	.
50	Max	1.46899	1.46568	1.46687	.
	Avg	1.47	1.47	1.47	.
	Min	1.47	1.46	1.47	.
100	Max	1.46868	1.46118	1.46593	1.46606
	Avg	1.47	1.46	1.47	1.47
	Min	1.47	1.46	1.46	1.46



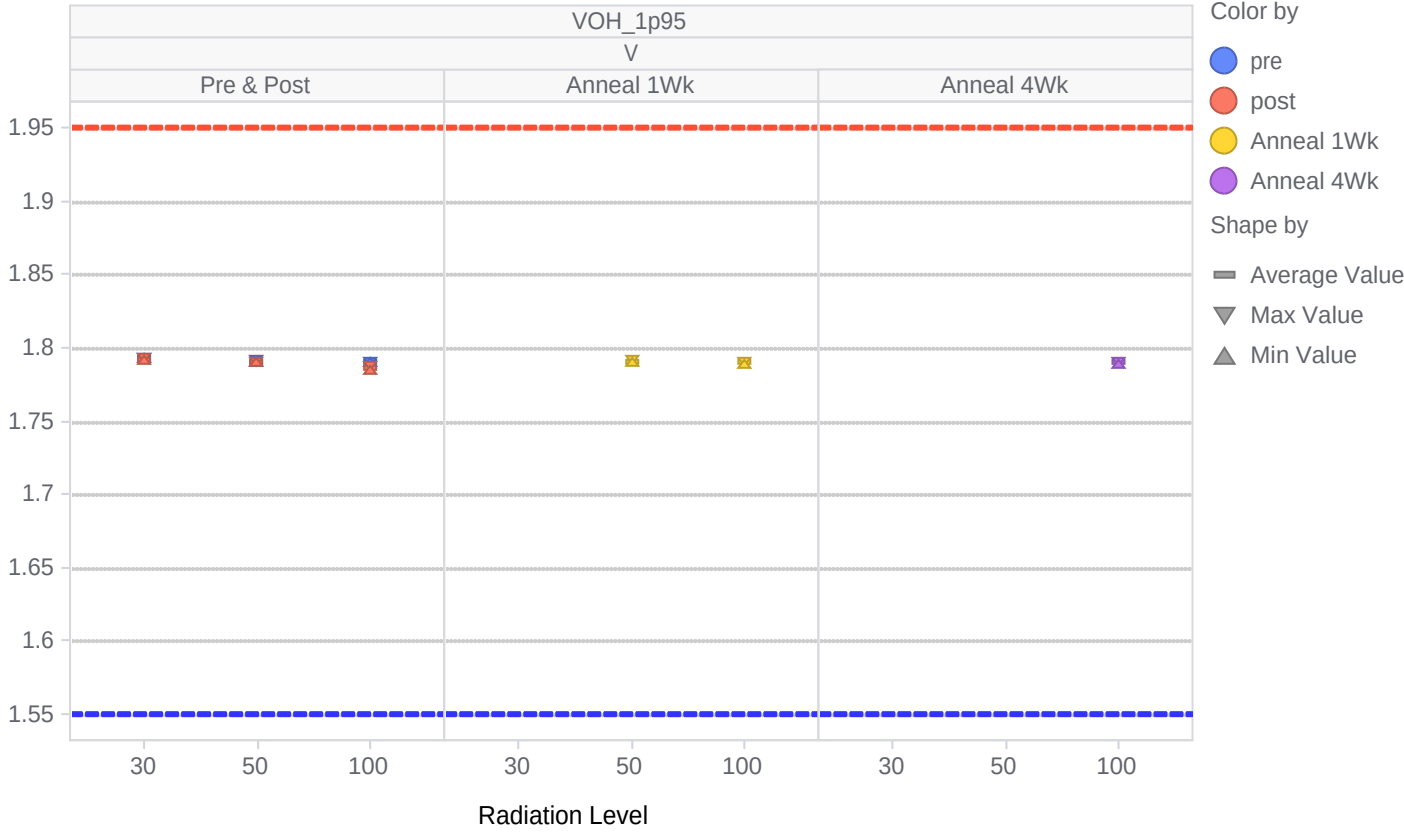
Radiation Level	PARTID	Recorded Value			
		VOH_1p95			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	1.79244	1.79188	.	.
	2	1.79294	1.79238	.	.
	3	1.79269	1.79213	.	.
	4	1.79288	1.79194	.	.
	5	1.79244	1.79182	.	.
50	6	1.79094	1.78975	1.79057	.
	7	1.79125	1.79038	1.78969	.
	8	1.79088	1.78975	1.79057	.
	9	1.79063	1.78982	1.78975	.
	10	1.79044	1.78969	1.79119	.
100	11	1.78969	1.78432	1.78938	1.78882
	12	1.79057	1.78576	1.79057	1.79000
	13	1.79069	1.78519	1.79075	1.79075
	14	1.79088	1.78638	1.79013	1.78982
	15	1.79019	1.78688	1.79075	1.79019

Radiation Level	PARTID	Delta		
		VOH_1p95		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	-0.01	0.00	0.00
	12	0.00	0.00	0.00
	13	-0.01	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	1.79294	1.79238	.	.
	Avg	1.79	1.79	.	.
	Min	1.79	1.79	.	.
50	Max	1.79125	1.79038	1.79119	.
	Avg	1.79	1.79	1.79	.
	Min	1.79	1.79	1.79	.
100	Max	1.79088	1.78688	1.79075	1.79075
	Avg	1.79	1.79	1.79	1.79
	Min	1.79	1.78	1.79	1.79



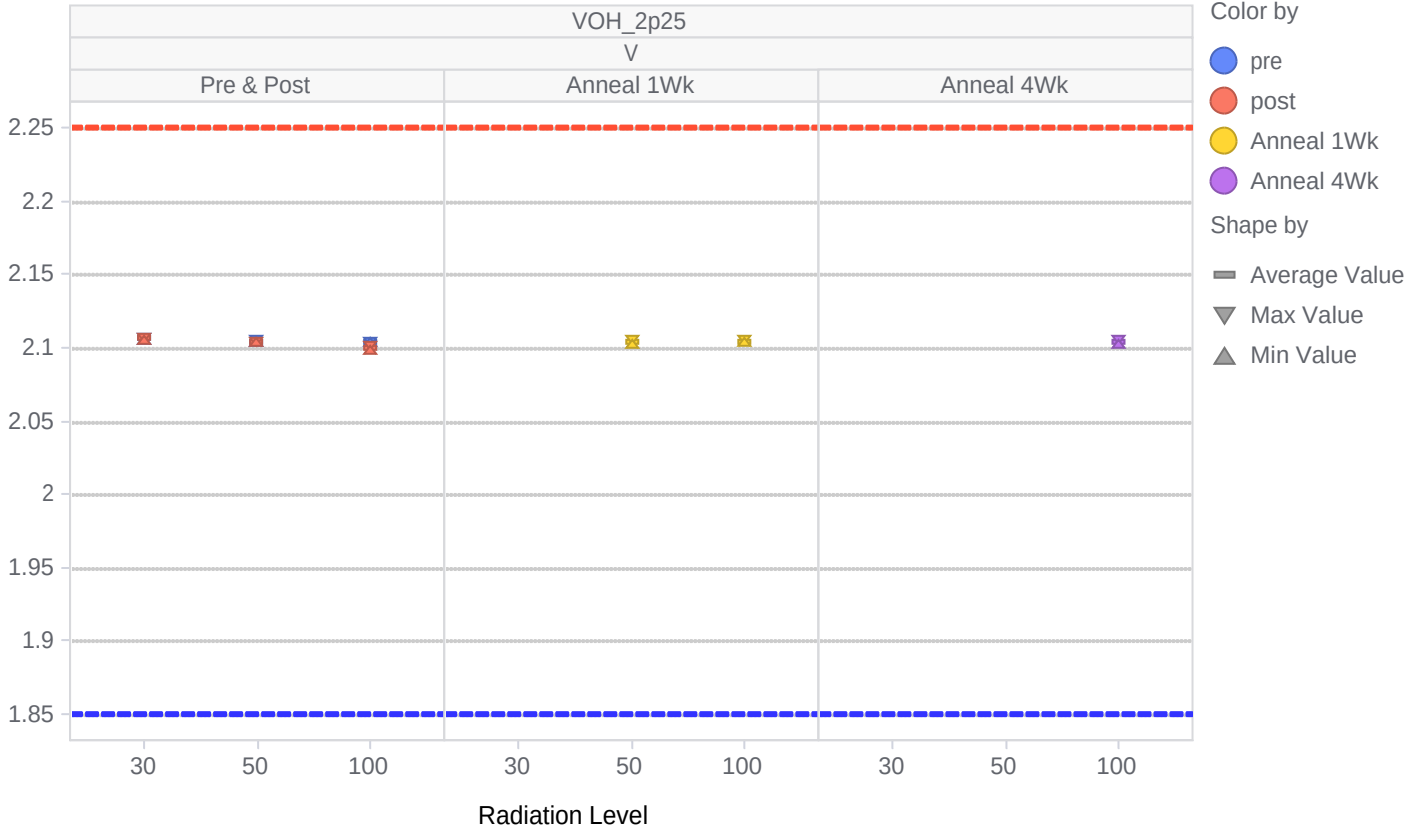
Radiation Level	PARTID	Recorded Value			
		VOH_2p25			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.10607	2.10601	.	.
	2	2.10657	2.10651	.	.
	3	2.10632	2.10632	.	.
	4	2.10651	2.10607	.	.
	5	2.10595	2.10589	.	.
50	6	2.10414	2.10371	2.10427	.
	7	2.10471	2.10427	2.10314	.
	8	2.10433	2.10358	2.10439	.
	9	2.10402	2.10358	2.10333	.
	10	2.10396	2.10358	2.10483	.
100	11	2.10333	2.09858	2.10346	2.10302
	12	2.10408	2.09958	2.10433	2.10402
	13	2.10402	2.09940	2.10458	2.10464
	14	2.10421	2.10027	2.10402	2.10383
	15	2.10364	2.10058	2.10464	2.10427

Radiation Level	PARTID	Delta		
		VOH_2p25		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	0.00	0.00
	12	0.00	0.00	0.00
	13	0.00	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.10657	2.10651	.	.
	Avg	2.11	2.11	.	.
	Min	2.11	2.11	.	.
50	Max	2.10471	2.10427	2.10483	.
	Avg	2.10	2.10	2.10	.
	Min	2.10	2.10	2.10	.
100	Max	2.10421	2.10058	2.10464	2.10464
	Avg	2.10	2.10	2.10	2.10
	Min	2.10	2.10	2.10	2.10



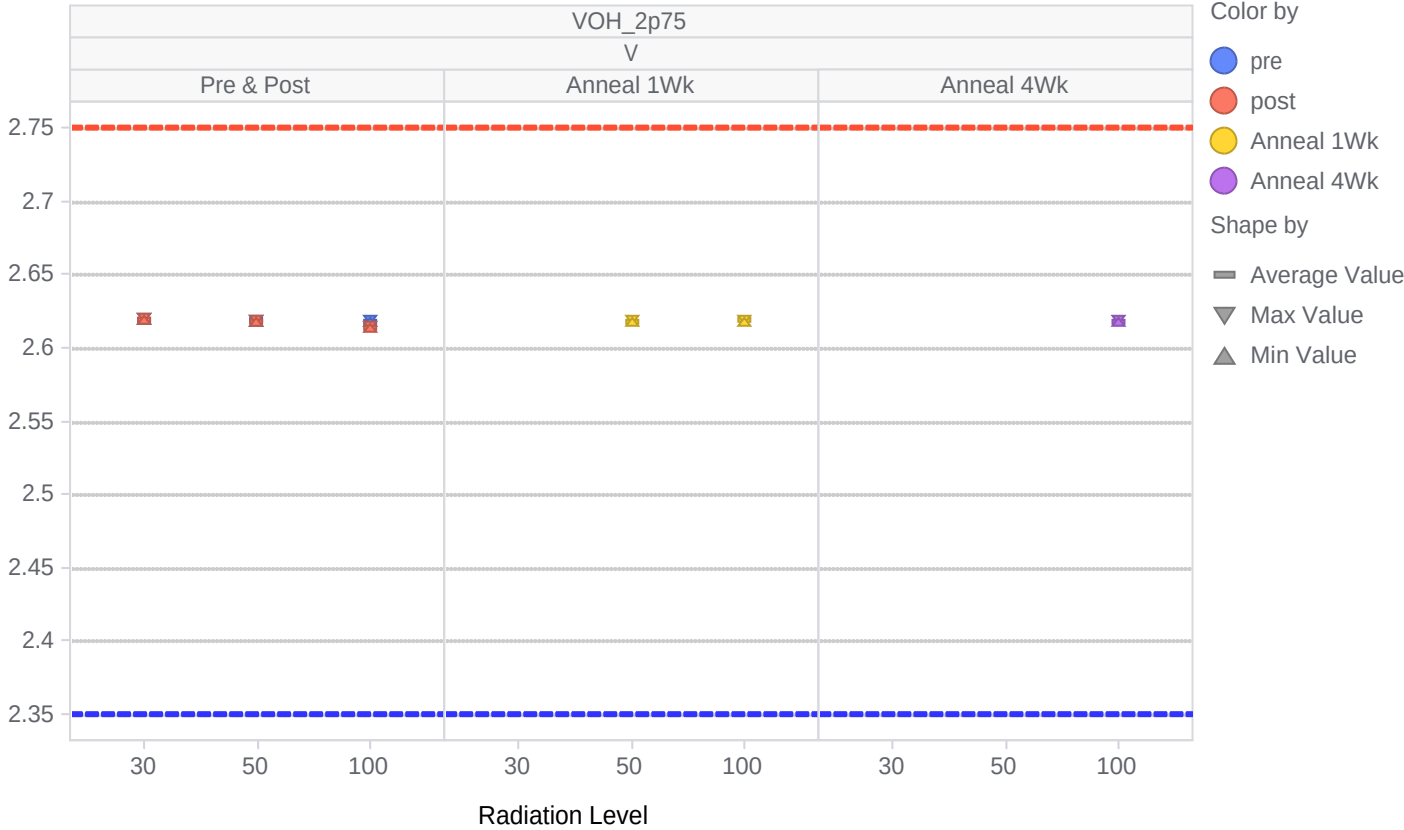
Radiation Level	PARTID	Recorded Value			
		VOH_2p75			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.61938	2.61938	.	.
	2	2.61982	2.61982	.	.
	3	2.61957	2.61982	.	.
	4	2.61976	2.61951	.	.
	5	2.61932	2.61945	.	.
50	6	2.61842	2.61761	2.61830	.
	7	2.61892	2.61830	2.61724	.
	8	2.61855	2.61780	2.61842	.
	9	2.61817	2.61755	2.61749	.
	10	2.61799	2.61774	2.61874	.
100	11	2.61749	2.61324	2.61768	2.61724
	12	2.61836	2.61411	2.61842	2.61811
	13	2.61830	2.61361	2.61874	2.61874
	14	2.61836	2.61468	2.61805	2.61792
	15	2.61811	2.61474	2.61861	2.61842

Radiation Level	PARTID	Delta		
		VOH_2p75		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	0.00	0.00	0.00
	12	0.00	0.00	0.00
	13	0.00	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.61982	2.61982	.	.
	Avg	2.62	2.62	.	.
	Min	2.62	2.62	.	.
50	Max	2.61892	2.61830	2.61874	.
	Avg	2.62	2.62	2.62	.
	Min	2.62	2.62	2.62	.
100	Max	2.61836	2.61474	2.61874	2.61874
	Avg	2.62	2.61	2.62	2.62
	Min	2.62	2.61	2.62	2.62



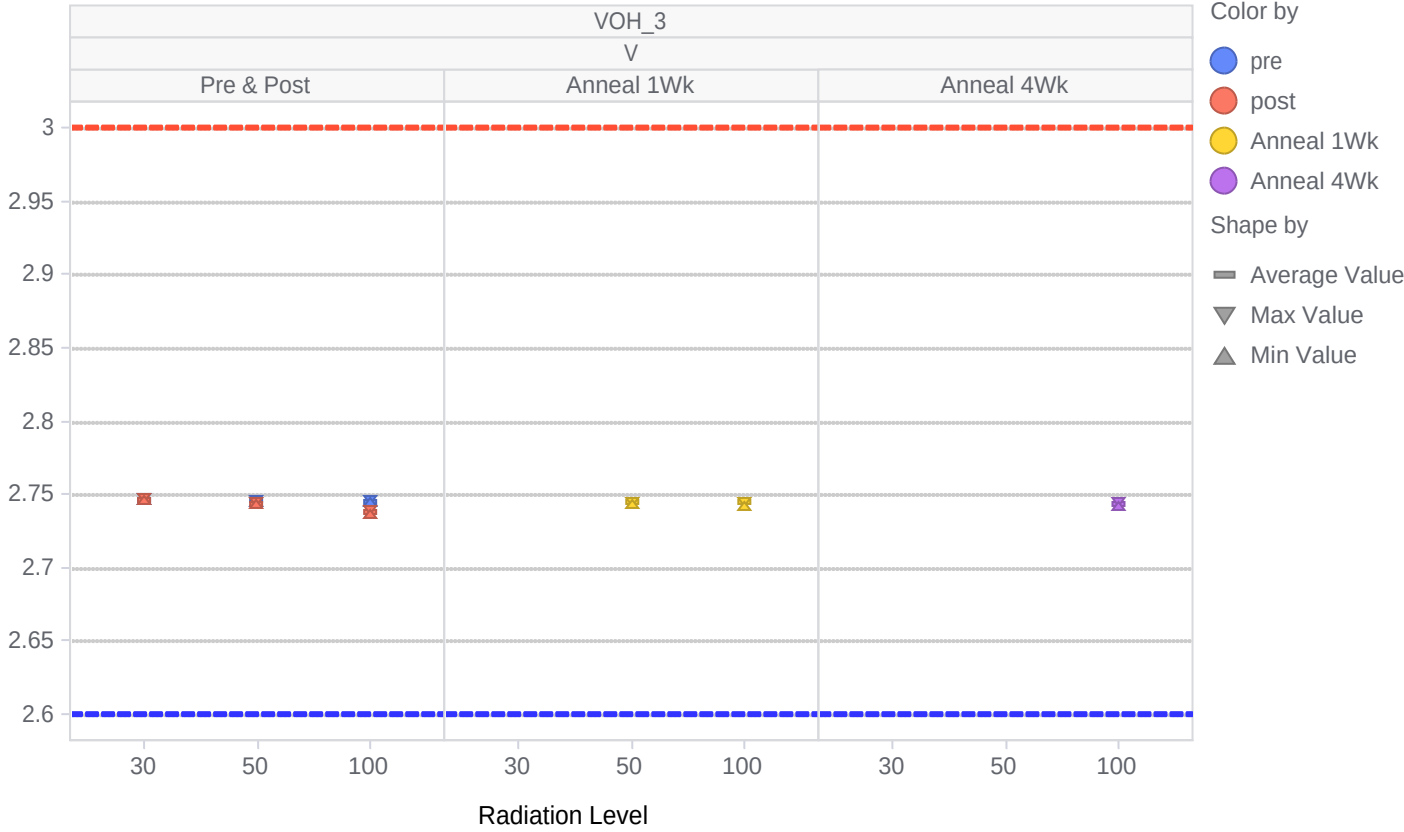
Radiation Level	PARTID	Recorded Value			
		VOH_3			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	2.74615	2.74596	.	.
	2	2.74696	2.74690	.	.
	3	2.74665	2.74659	.	.
	4	2.74702	2.74590	.	.
	5	2.74615	2.74596	.	.
50	6	2.74536	2.74292	2.74398	.
	7	2.74642	2.74429	2.74392	.
	8	2.74604	2.74298	2.74411	.
	9	2.74492	2.74273	2.74398	.
	10	2.74523	2.74317	2.74523	.
100	11	2.74404	2.73630	2.74254	2.74204
	12	2.74511	2.73855	2.74448	2.74386
	13	2.74536	2.73786	2.74473	2.74486
	14	2.74573	2.73967	2.74367	2.74342
	15	2.74461	2.73992	2.74486	2.74436

Radiation Level	PARTID	Delta		
		VOH_3		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	-0.01	0.00	0.00
	12	-0.01	0.00	0.00
	13	-0.01	0.00	0.00
	14	-0.01	0.00	0.00
	15	0.00	0.00	0.00

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	2.74702	2.74690	.	.
	Avg	2.75	2.75	.	.
	Min	2.75	2.75	.	.
50	Max	2.74642	2.74429	2.74523	.
	Avg	2.75	2.74	2.74	.
	Min	2.74	2.74	2.74	.
100	Max	2.74573	2.73992	2.74486	2.74486
	Avg	2.74	2.74	2.74	2.74
	Min	2.74	2.74	2.74	2.74



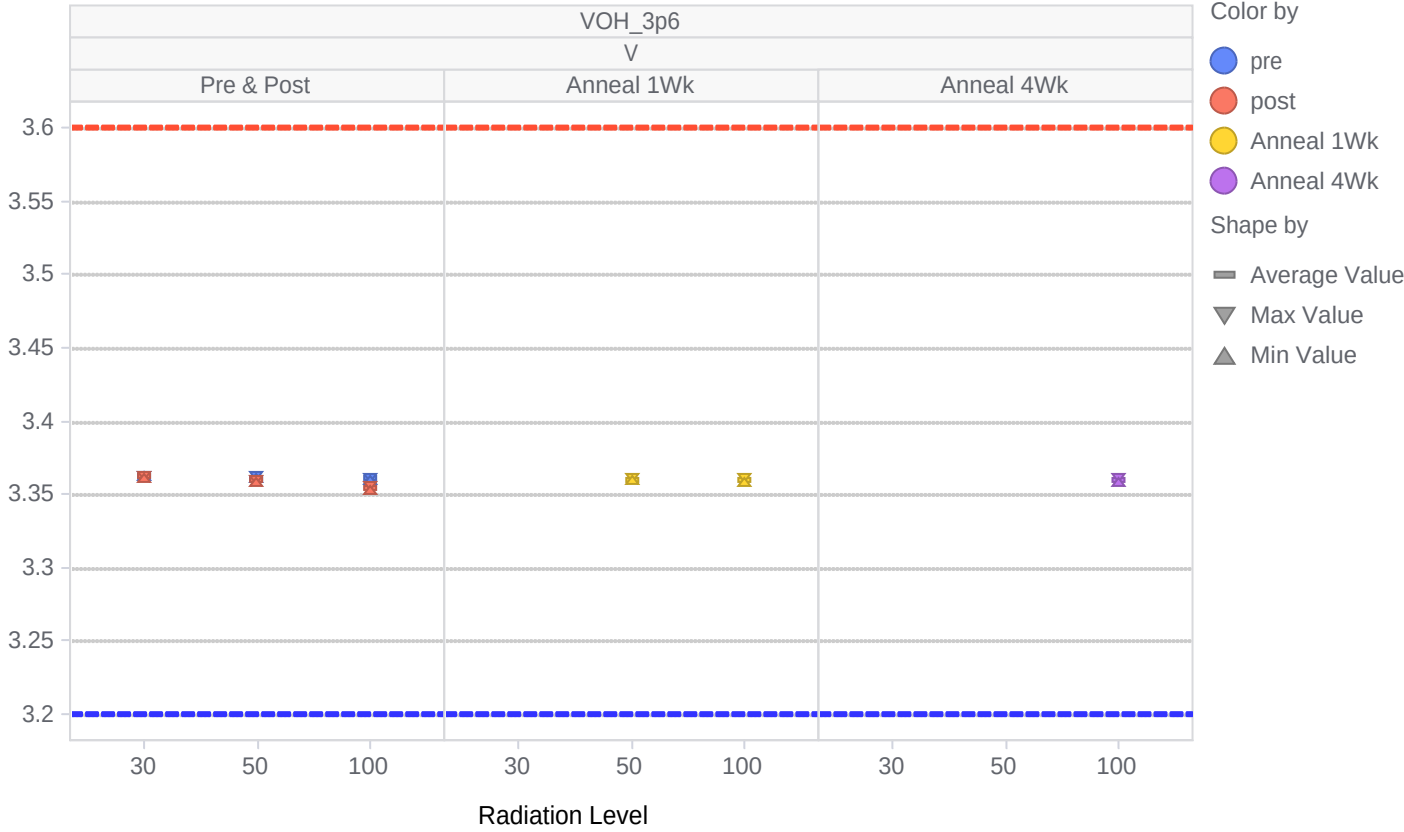
Radiation Level	PARTID	Recorded Value			
		VOH_3p6			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	3.36198	3.36192	.	.
	2	3.36254	3.36273	.	.
	3	3.36223	3.36217	.	.
	4	3.36254	3.36179	.	.
	5	3.36192	3.36161	.	.
50	6	3.36108	3.35902	3.35989	.
	7	3.36189	3.36033	3.35977	.
	8	3.36158	3.35921	3.36002	.
	9	3.36052	3.35877	3.35989	.
	10	3.36064	3.35914	3.36121	.
100	11	3.36002	3.35290	3.35858	3.35821
	12	3.36064	3.35508	3.36021	3.36002
	13	3.36083	3.35421	3.36089	3.36096
	14	3.36121	3.35615	3.35964	3.35958
	15	3.36046	3.35627	3.36096	3.36046

Radiation Level	PARTID	Delta		
		VOH_3p6		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	-0.01	0.00	0.00
	12	-0.01	0.00	0.00
	13	-0.01	0.00	0.00
	14	-0.01	0.00	0.00
	15	0.00	0.00	0.00

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	3.36254	3.36273	.	.
	Avg	3.36	3.36	.	.
	Min	3.36	3.36	.	.
50	Max	3.36189	3.36033	3.36121	.
	Avg	3.36	3.36	3.36	.
	Min	3.36	3.36	3.36	.
100	Max	3.36121	3.35627	3.36096	3.36096
	Avg	3.36	3.35	3.36	3.36
	Min	3.36	3.35	3.36	3.36



Radiation Level	PARTID	Recorded Value			
		VOH_4p5			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	4.27077	4.27089	.	.
	2	4.27171	4.27171	.	.
	3	4.27108	4.27121	.	.
	4	4.27164	4.27096	.	.
	5	4.27071	4.27083	.	.
50	6	4.27021	4.26827	4.26908	.
	7	4.27108	4.26952	4.26896	.
	8	4.27058	4.26840	4.26902	.
	9	4.26965	4.26790	4.26890	.
	10	4.26983	4.26833	4.27033	.
100	11	4.26896	4.26284	4.26802	4.26771
	12	4.26983	4.26477	4.26952	4.26908
	13	4.27002	4.26396	4.27015	4.27015
	14	4.27027	4.26571	4.26896	4.26890
	15	4.26921	4.26565	4.27008	4.26977

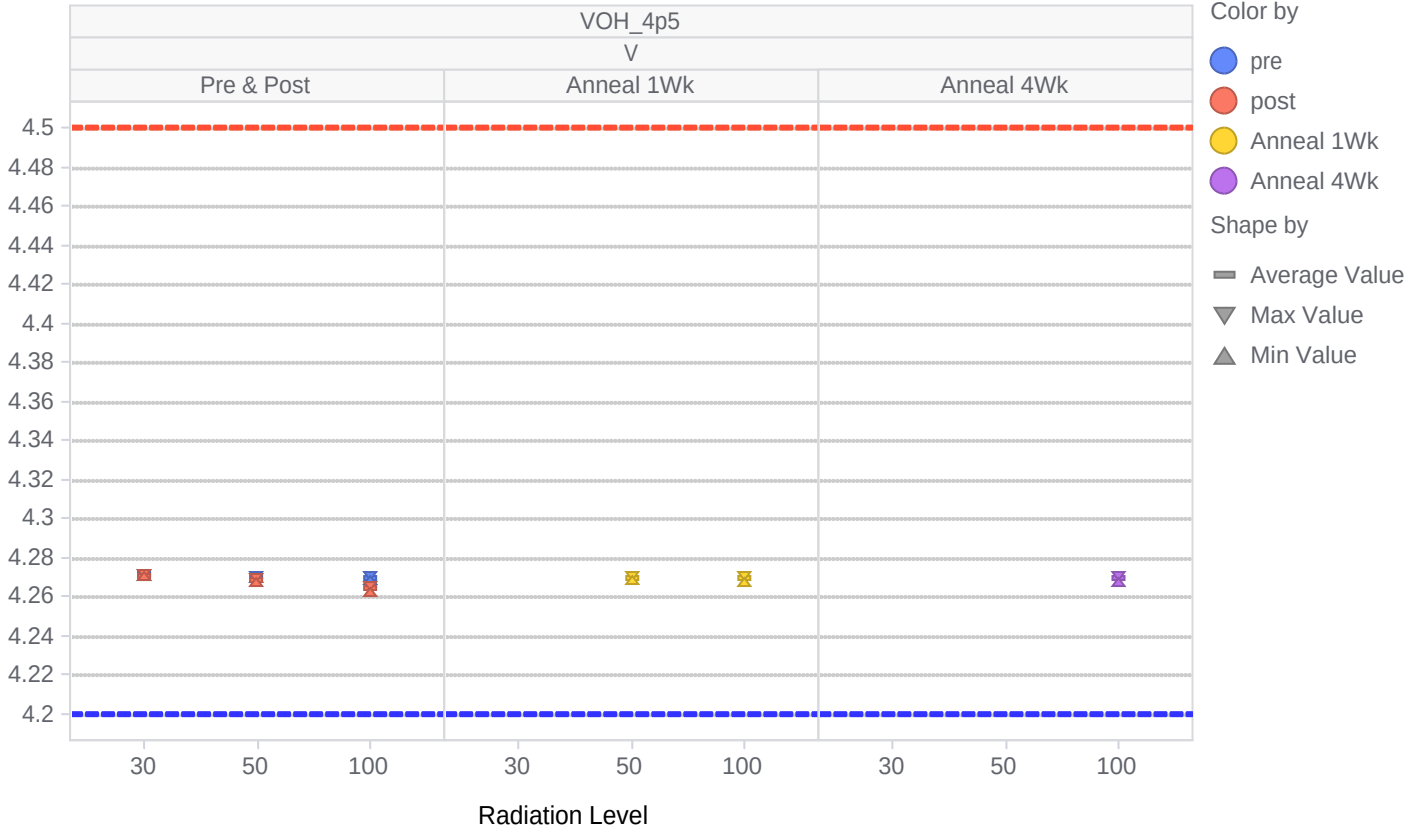
Radiation Level	PARTID	Delta		
		VOH_4p5		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	-0.01	0.00	0.00
	12	-0.01	0.00	0.00
	13	-0.01	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	4.27171	4.27171	.	.
	Avg	4.27	4.27	.	.
	Min	4.27	4.27	.	.
50	Max	4.27108	4.26952	4.27033	.
	Avg	4.27	4.27	4.27	.
	Min	4.27	4.27	4.27	.
100	Max	4.27027	4.26571	4.27015	4.27015
	Avg	4.27	4.26	4.27	4.27
	Min	4.27	4.26	4.27	4.27



Radiation Level	PARTID	Recorded Value			
		VOH_5p5			
		V			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	5.26771	5.26790	.	.
	2	5.26877	5.26902	.	.
	3	5.26815	5.26821	.	.
	4	5.26884	5.26790	.	.
	5	5.26790	5.26790	.	.
50	6	5.26735	5.26548	5.26623	.
	7	5.26791	5.26660	5.26616	.
	8	5.26754	5.26548	5.26616	.
	9	5.26641	5.26510	5.26604	.
	10	5.26673	5.26548	5.26748	.
100	11	5.26579	5.26048	5.26535	5.26498
	12	5.26679	5.26229	5.26691	5.26654
	13	5.26673	5.26160	5.26741	5.26735
	14	5.26698	5.26317	5.26635	5.26604
	15	5.26629	5.26317	5.26748	5.26691

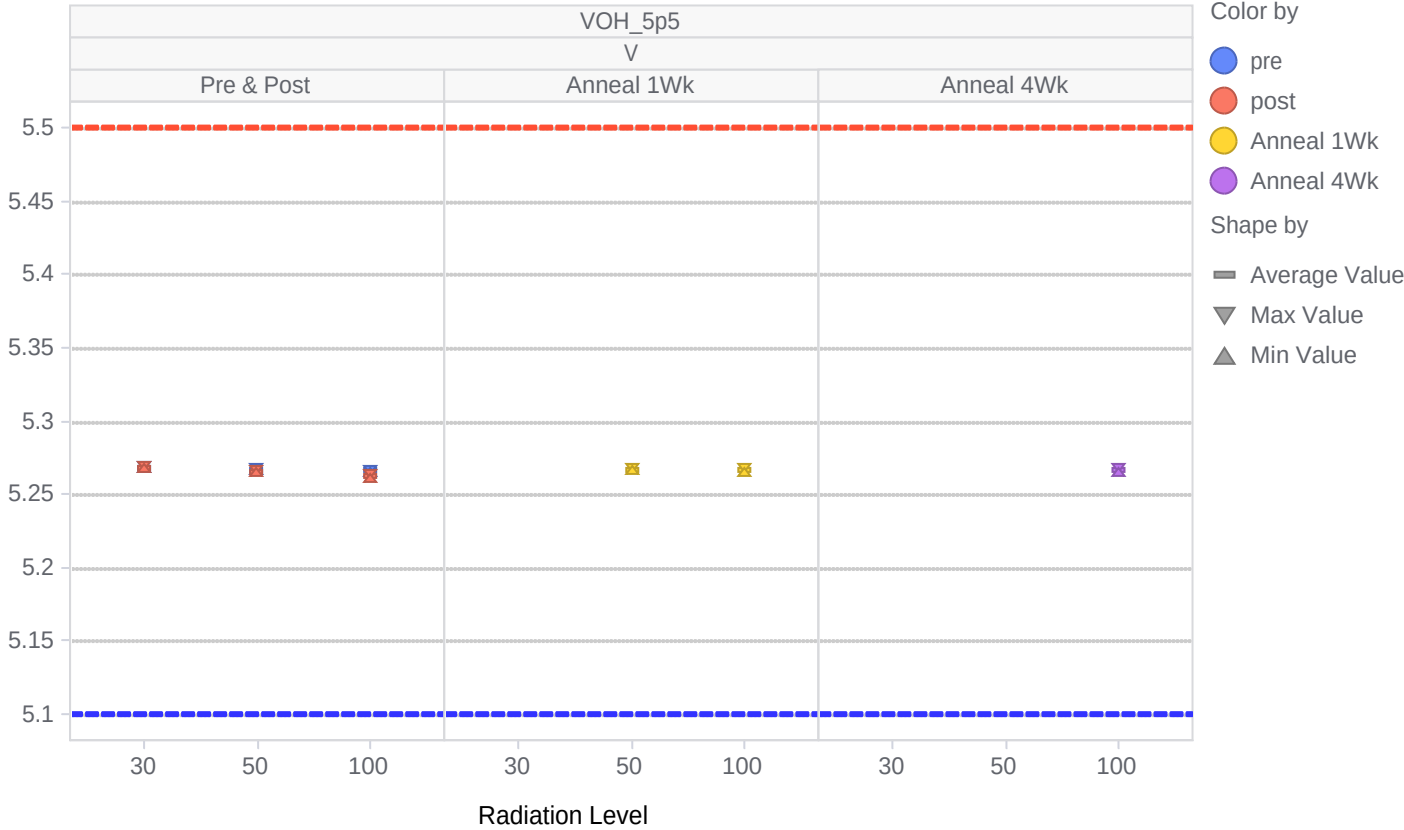
Radiation Level	PARTID	Delta		
		VOH_5p5		
		V		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	0.00	.	.
	5	0.00	.	.
50	6	0.00	0.00	.
	7	0.00	0.00	.
	8	0.00	0.00	.
	9	0.00	0.00	.
	10	0.00	0.00	.
100	11	-0.01	0.00	0.00
	12	0.00	0.00	0.00
	13	-0.01	0.00	0.00
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	5.26884	5.26902	.	.
	Avg	5.27	5.27	.	.
	Min	5.27	5.27	.	.
50	Max	5.26791	5.26660	5.26748	.
	Avg	5.27	5.27	5.27	.
	Min	5.27	5.27	5.27	.
100	Max	5.26698	5.26317	5.26748	5.26735
	Avg	5.27	5.26	5.27	5.27
	Min	5.27	5.26	5.27	5.26



Radiation Level	PARTID	Recorded Value			
		VOL_1p65			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	149.36681	149.17938	.	.
	2	147.67994	147.49251	.	.
	3	149.42929	148.92948	.	.
	4	148.05481	149.05442	.	.
	5	149.24186	149.24186	.	.
50	6	147.83970	152.52464	147.90216	.
	7	147.33997	153.77395	147.90216	.
	8	149.02656	154.27367	149.46382	.
	9	148.08956	152.52464	149.58875	.
	10	148.15202	154.21121	148.77668	.
100	11	150.27587	172.10000	151.65012	150.83806
	12	149.15149	170.20245	149.52628	148.83915
	13	150.65067	170.07752	148.52682	147.52737
	14	148.46435	167.14163	149.21395	148.02709
	15	150.71313	167.70382	147.77723	147.21504

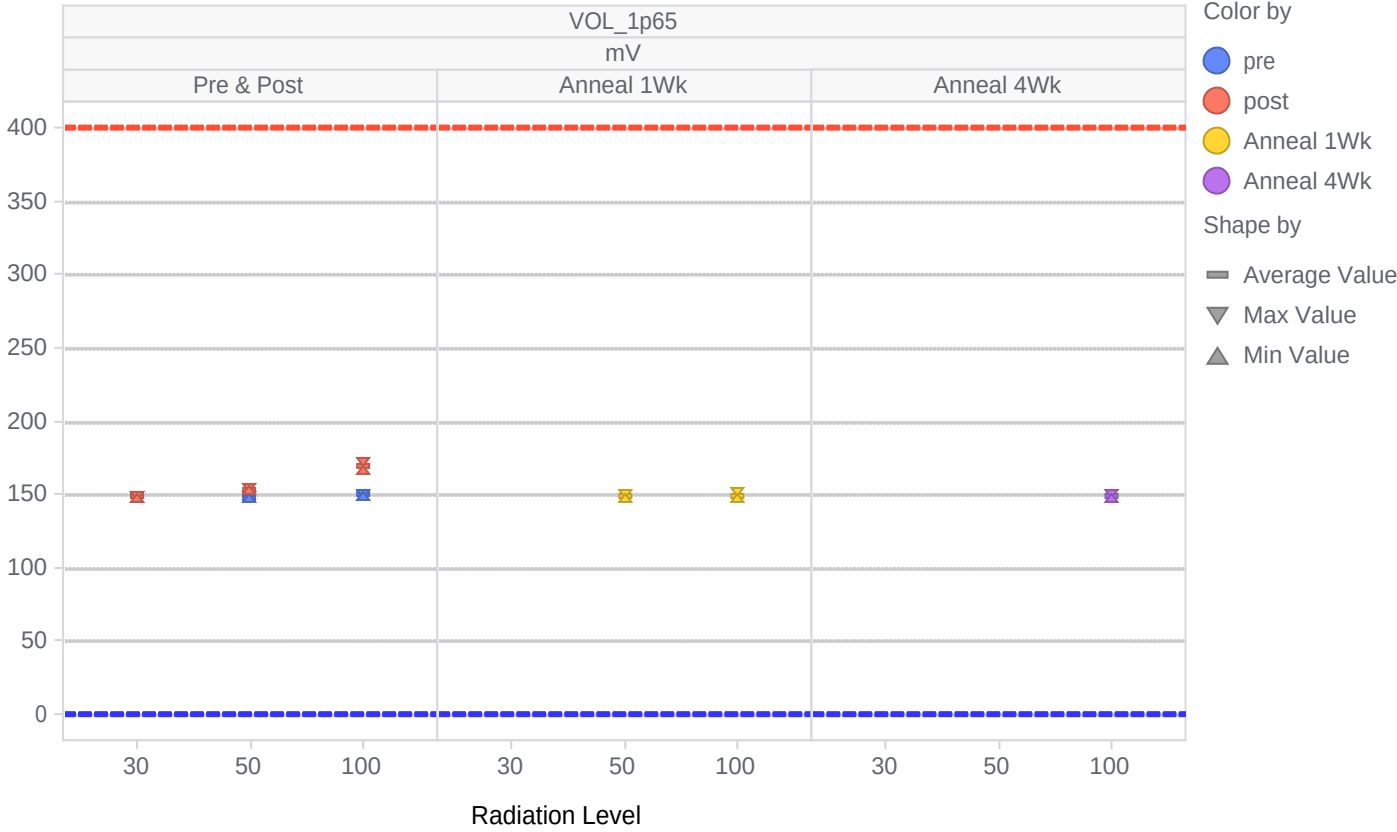
Radiation Level	PARTID	Delta		
		VOL_1p65		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.19	.	.
	2	-0.19	.	.
	3	-0.50	.	.
	4	1.00	.	.
	5	0.00	.	.
50	6	4.68	0.06	.
	7	6.43	0.56	.
	8	5.25	0.44	.
	9	4.44	1.50	.
	10	6.06	0.62	.
100	11	21.82	1.37	0.56
	12	21.05	0.37	-0.31
	13	19.43	-2.12	-3.12
	14	18.68	0.75	-0.44
	15	16.99	-2.94	-3.50

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	149.42929	149.24186	.	.
	Avg	148.75	148.78	.	.
	Min	147.68	147.49	.	.
50	Max	149.02656	154.27367	149.58875	.
	Avg	148.09	153.46	148.73	.
	Min	147.34	152.52	147.90	.
100	Max	150.71313	172.10000	151.65012	150.83806
	Avg	149.85	169.45	149.34	148.49
	Min	148.46	167.14	147.78	147.22



Radiation Level	PARTID	Recorded Value			
		VOL_1p95			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	130.06151	130.31141	.	.
	2	128.99941	128.93693	.	.
	3	130.12399	130.18647	.	.
	4	129.12436	130.31141	.	.
	5	130.18647	130.18647	.	.
50	6	129.59969	132.91037	129.72462	.
	7	129.03750	133.72244	129.91202	.
	8	130.28681	134.03477	130.66161	.
	9	130.03695	133.28516	130.78654	.
	10	129.97448	134.03477	129.97448	.
100	11	131.28626	141.00000	132.34818	131.72352
	12	130.41174	141.50000	130.78654	130.47421
	13	131.53613	141.40000	129.84955	129.22490
	14	129.97448	140.98000	130.66161	129.78709
	15	131.53613	141.30000	129.47476	129.41229

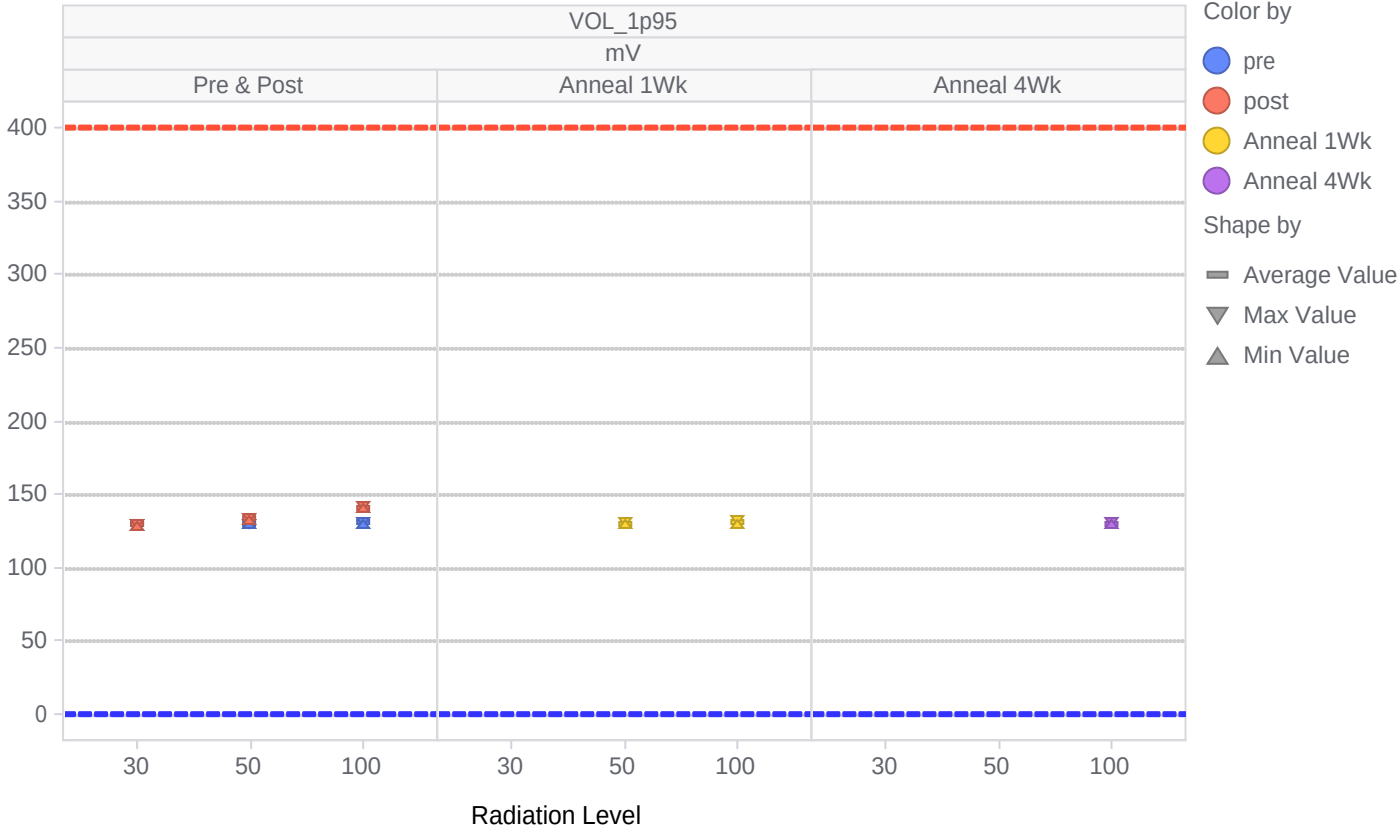
Radiation Level	PARTID	Delta		
		VOL_1p95		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.25	.	.
	2	-0.06	.	.
	3	0.06	.	.
	4	1.19	.	.
	5	0.00	.	.
50	6	3.31	0.12	.
	7	4.68	0.87	.
	8	3.75	0.37	.
	9	3.25	0.75	.
	10	4.06	0.00	.
100	11	9.71	1.06	0.44
	12	11.09	0.37	0.06
	13	9.86	-1.69	-2.31
	14	11.01	0.69	-0.19
	15	9.76	-2.06	-2.12

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	130.18647	130.31141	.	.
	Avg	129.70	129.99	.	.
	Min	129.00	128.94	.	.
50	Max	130.28681	134.03477	130.78654	.
	Avg	129.79	133.60	130.21	.
	Min	129.04	132.91	129.72	.
100	Max	131.53613	141.50000	132.34818	131.72352
	Avg	130.95	141.24	130.62	130.12
	Min	129.97	140.98	129.47	129.22



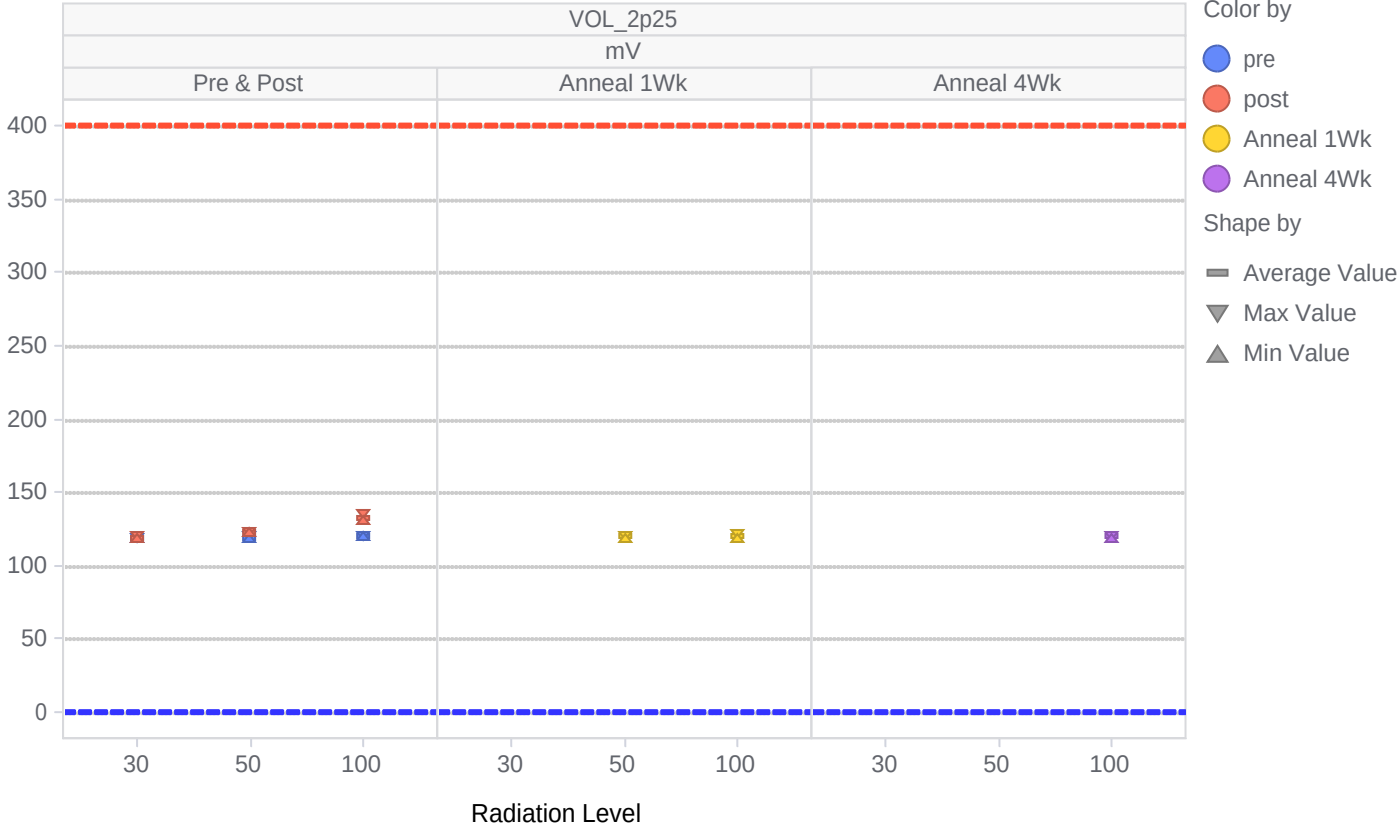
Radiation Level	PARTID	Recorded Value			
		VOL_2p25			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	119.37800	119.50295	.	.
	2	118.37837	118.37837	.	.
	3	119.31552	119.25305	.	.
	4	118.69076	119.44047	.	.
	5	119.25305	119.56543	.	.
50	6	119.10544	122.22873	119.41776	.
	7	118.60571	122.47859	119.60516	.
	8	119.60516	122.97831	119.97996	.
	9	119.66763	122.35366	120.04243	.
	10	119.41776	122.91585	119.48023	.
100	11	120.66709	134.53449	121.29174	120.79202
	12	119.73009	132.34818	120.16736	119.73009
	13	120.54215	132.78544	119.23037	118.73064
	14	119.48023	130.47421	120.16736	119.48023
	15	120.72955	130.97394	119.16790	118.91804

Radiation Level	PARTID	Delta		
		VOL_2p25		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.12	.	.
	2	0.00	.	.
	3	-0.06	.	.
	4	0.75	.	.
	5	0.31	.	.
50	6	3.12	0.31	.
	7	3.87	1.00	.
	8	3.37	0.37	.
	9	2.69	0.37	.
	10	3.50	0.06	.
100	11	13.87	0.62	0.12
	12	12.62	0.44	0.00
	13	12.24	-1.31	-1.81
	14	10.99	0.69	0.00
	15	10.24	-1.56	-1.81

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	119.37800	119.56543	.	.
	Avg	119.00	119.23	.	.
	Min	118.38	118.38	.	.
50	Max	119.66763	122.97831	120.04243	.
	Avg	119.28	122.59	119.71	.
	Min	118.61	122.23	119.42	.
100	Max	120.72955	134.53449	121.29174	120.79202
	Avg	120.23	132.22	120.00	119.53
	Min	119.48	130.47	119.17	118.73



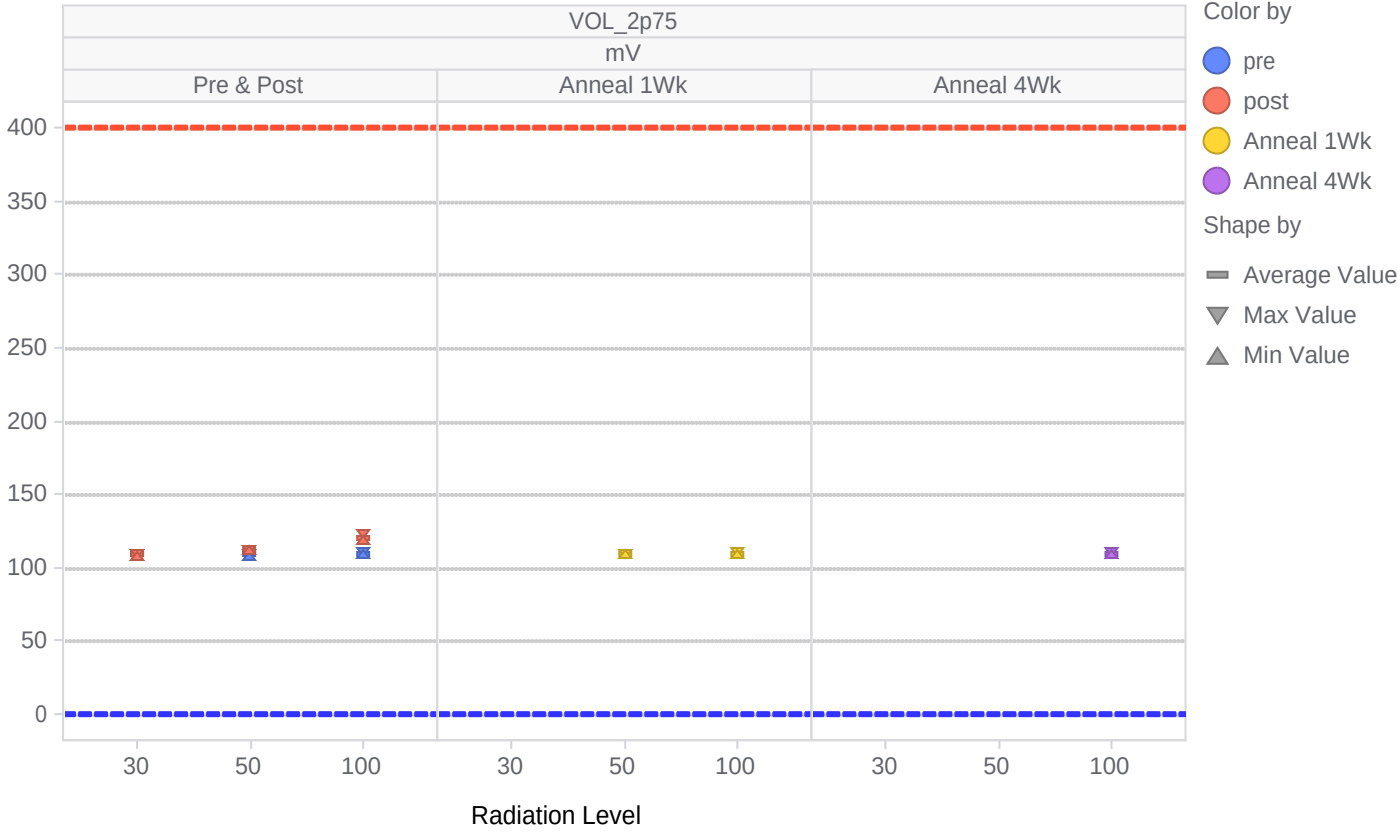
Radiation Level	PARTID	Recorded Value			
		VOL_2p75			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	108.88191	108.88191	.	.
	2	108.06972	108.19467	.	.
	3	108.81944	109.06935	.	.
	4	108.25715	108.94439	.	.
	5	108.81944	109.06935	.	.
50	6	109.04845	111.85940	109.36078	.
	7	108.36132	111.85940	109.54817	.
	8	109.23585	112.42160	109.48571	.
	9	109.48571	112.17173	109.61064	.
	10	109.42324	112.23420	109.11091	.
100	11	110.23530	122.60352	111.04735	110.61009
	12	109.36078	120.79202	109.73557	109.42324
	13	109.98543	121.41667	109.04845	108.73612
	14	109.29831	119.16790	109.92297	109.36078
	15	110.04790	119.48023	108.98598	108.86105

Radiation Level	PARTID	Delta		
		VOL_2p75		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.00	.	.
	2	0.12	.	.
	3	0.25	.	.
	4	0.69	.	.
	5	0.25	.	.
50	6	2.81	0.31	.
	7	3.50	1.19	.
	8	3.19	0.25	.
	9	2.69	0.12	.
	10	2.81	-0.31	.
100	11	12.37	0.81	0.37
	12	11.43	0.37	0.06
	13	11.43	-0.94	-1.25
	14	9.87	0.62	0.06
	15	9.43	-1.06	-1.19

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	108.88191	109.06935	.	.
	Avg	108.57	108.83	.	.
	Min	108.07	108.19	.	.
50	Max	109.48571	112.42160	109.61064	.
	Avg	109.11	112.11	109.42	.
	Min	108.36	111.86	109.11	.
100	Max	110.23530	122.60352	111.04735	110.61009
	Avg	109.79	120.69	109.75	109.40
	Min	109.30	119.17	108.99	108.74



Radiation Level	PARTID	Recorded Value			
		VOL_3			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	211.71854	211.84351	.	.
	2	210.21912	210.03167	.	.
	3	211.46864	211.59360	.	.
	4	210.65645	211.65608	.	.
	5	211.46864	211.78102	.	.
50	6	212.11700	215.11535	212.42933	.
	7	210.43043	214.86549	212.80412	.
	8	212.30440	215.92741	212.92906	.
	9	213.11645	215.61508	212.86659	.
	10	212.80412	215.67754	211.99207	.
100	11	214.24083	227.85838	214.74056	214.55316
	12	212.49180	224.98494	212.61673	212.36686
	13	213.99097	225.79701	211.55481	210.93015
	14	212.61673	222.54878	212.86659	212.24193
	15	213.61618	223.29837	211.11755	210.99262

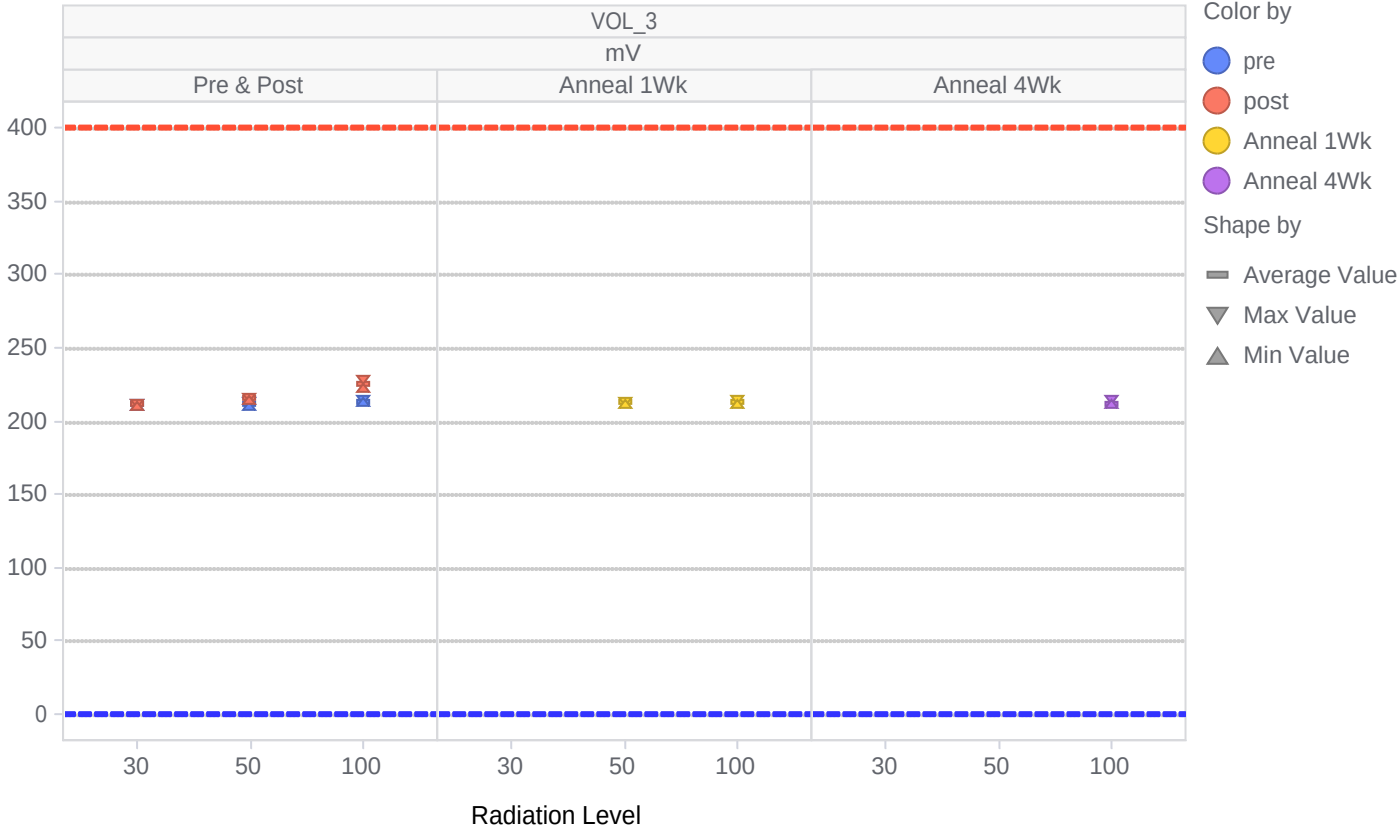
Radiation Level	PARTID	Delta		
		VOL_3		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.12	.	.
	2	-0.19	.	.
	3	0.12	.	.
	4	1.00	.	.
	5	0.31	.	.
50	6	3.00	0.31	.
	7	4.44	2.37	.
	8	3.62	0.62	.
	9	2.50	-0.25	.
	10	2.87	-0.81	.
100	11	13.62	0.50	0.31
	12	12.49	0.12	-0.12
	13	11.81	-2.44	-3.06
	14	9.93	0.25	-0.37
	15	9.68	-2.50	-2.62

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	211.71854	211.84351	.	.
	Avg	211.11	211.38	.	.
	Min	210.22	210.03	.	.
50	Max	213.11645	215.92741	212.92906	.
	Avg	212.15	215.44	212.60	.
	Min	210.43	214.87	211.99	.
100	Max	214.24083	227.85838	214.74056	214.55316
	Avg	213.39	224.90	212.58	212.22
	Min	212.49	222.55	211.12	210.93



Radiation Level	PARTID	Recorded Value			
		VOL_3p6			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	200.28532	200.09789	.	.
	2	198.78587	198.78587	.	.
	3	200.09789	200.09789	.	.
	4	199.03578	200.16037	.	.
	5	200.09789	200.34780	.	.
50	6	200.62329	203.80905	201.37288	.
	7	199.31151	203.05946	201.49781	.
	8	200.62329	204.18385	201.56027	.
	9	201.62274	204.37124	201.43534	.
	10	201.18548	204.12138	200.56082	.
100	11	202.37233	215.49015	203.30933	202.93453
	12	200.93562	212.99152	201.12301	201.06055
	13	201.93507	213.67864	200.18603	199.87370
	14	200.93562	210.61783	201.56027	201.12301
	15	202.18493	210.99262	199.81124	199.93617

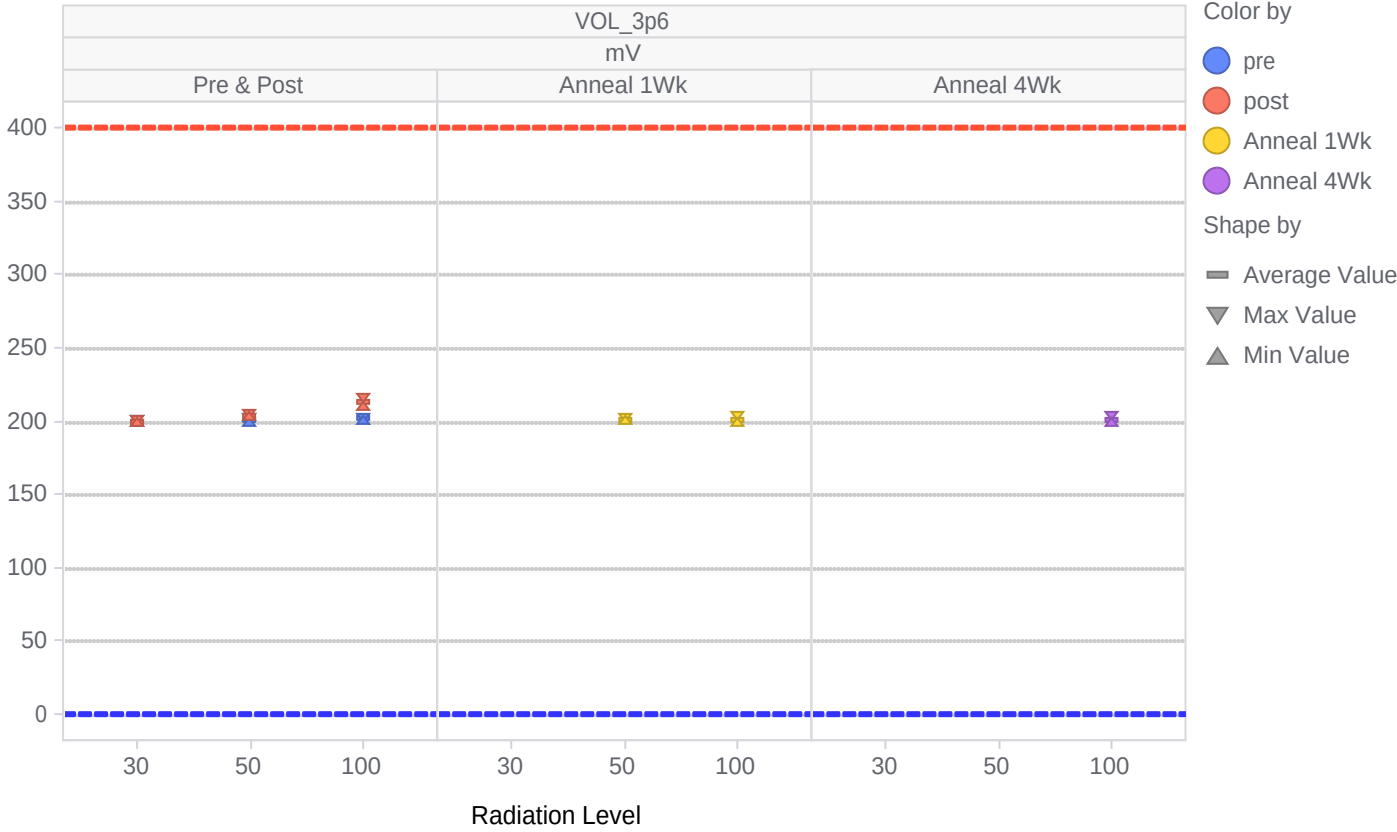
Radiation Level	PARTID	Delta		
		VOL_3p6		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.19	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	1.12	.	.
	5	0.25	.	.
50	6	3.19	0.75	.
	7	3.75	2.19	.
	8	3.56	0.94	.
	9	2.75	-0.19	.
	10	2.94	-0.62	.
100	11	13.12	0.94	0.56
	12	12.06	0.19	0.12
	13	11.74	-1.75	-2.06
	14	9.68	0.62	0.19
	15	8.81	-2.37	-2.25

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	200.28532	200.34780	.	.
	Avg	199.66	199.90	.	.
	Min	198.79	198.79	.	.
50	Max	201.62274	204.37124	201.56027	.
	Avg	200.67	203.91	201.29	.
	Min	199.31	203.06	200.56	.
100	Max	202.37233	215.49015	203.30933	202.93453
	Avg	201.67	212.75	201.20	200.99
	Min	200.94	210.62	199.81	199.87



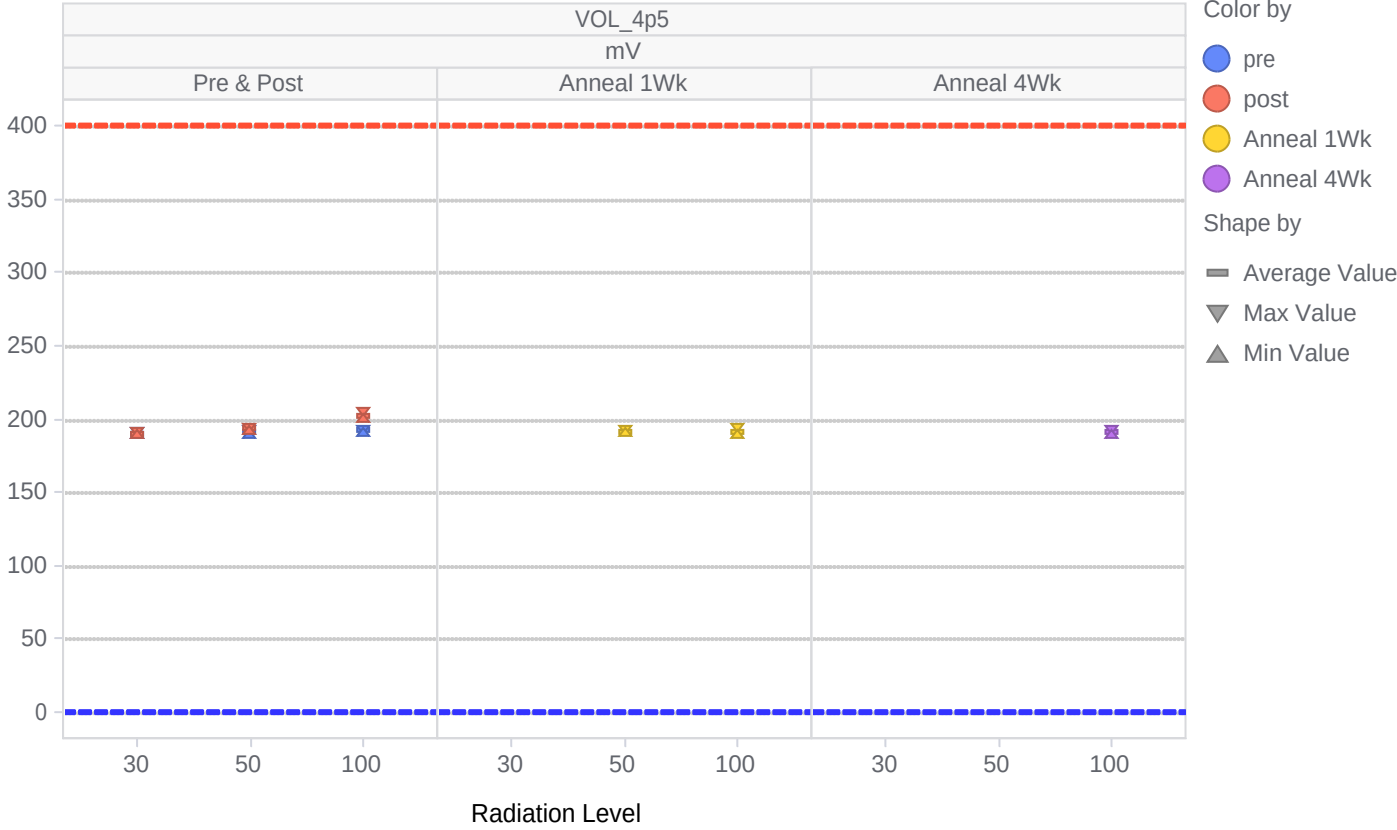
Radiation Level	PARTID	Recorded Value			
		VOL_4p5			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	190.53896	190.66390	.	.
	2	189.35190	189.35190	.	.
	3	190.47648	190.47648	.	.
	4	189.60181	190.60142	.	.
	5	190.53896	190.60142	.	.
50	6	191.25342	193.93945	191.69068	.
	7	190.00411	193.12739	192.19041	.
	8	191.00356	194.12684	191.75315	.
	9	192.12794	194.50164	191.87808	.
	10	191.56575	194.12684	190.75370	.
100	11	192.62767	204.74604	193.37726	193.06493
	12	191.56575	202.43479	191.56575	191.37836
	13	192.25287	203.12193	190.56630	190.25397
	14	191.31589	200.56082	191.87808	191.37836
	15	192.50274	200.81069	190.44137	190.37890

Radiation Level	PARTID	Delta		
		VOL_4p5		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	0.12	.	.
	2	0.00	.	.
	3	0.00	.	.
	4	1.00	.	.
	5	0.06	.	.
50	6	2.69	0.44	.
	7	3.12	2.19	.
	8	3.12	0.75	.
	9	2.37	-0.25	.
	10	2.56	-0.81	.
100	11	12.12	0.75	0.44
	12	10.87	0.00	-0.19
	13	10.87	-1.69	-2.00
	14	9.24	0.56	0.06
	15	8.31	-2.06	-2.12

Colors
All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	190.53896	190.66390	.	.
	Avg	190.10	190.34	.	.
	Min	189.35	189.35	.	.
50	Max	192.12794	194.50164	192.19041	.
	Avg	191.19	193.96	191.65	.
	Min	190.00	193.13	190.75	.
100	Max	192.62767	204.74604	193.37726	193.06493
	Avg	192.05	202.33	191.57	191.29
	Min	191.32	200.56	190.44	190.25



Radiation Level	PARTID	Recorded Value			
		VOL_5p5			
		mV			
		pre	post	Anneal 1Wk	Anneal 4Wk
30	1	185.10348	185.04101	.	.
	2	183.97890	183.79147	.	.
	3	184.72862	184.72862	.	.
	4	183.85394	185.04101	.	.
	5	184.85357	184.97853	.	.
50	6	185.31917	188.38000	185.94383	.
	7	184.13232	187.50548	186.38109	.
	8	185.19424	188.38000	185.69396	.
	9	186.38109	188.81726	185.88136	.
	10	186.06876	188.38000	184.75698	.
100	11	186.94328	198.68685	187.63041	187.25561
	12	185.69396	196.31316	185.88136	185.44410
	13	186.25616	197.31261	184.88191	184.63205
	14	185.38164	194.68904	186.31862	185.88136
	15	186.44355	195.06384	184.88191	184.69451

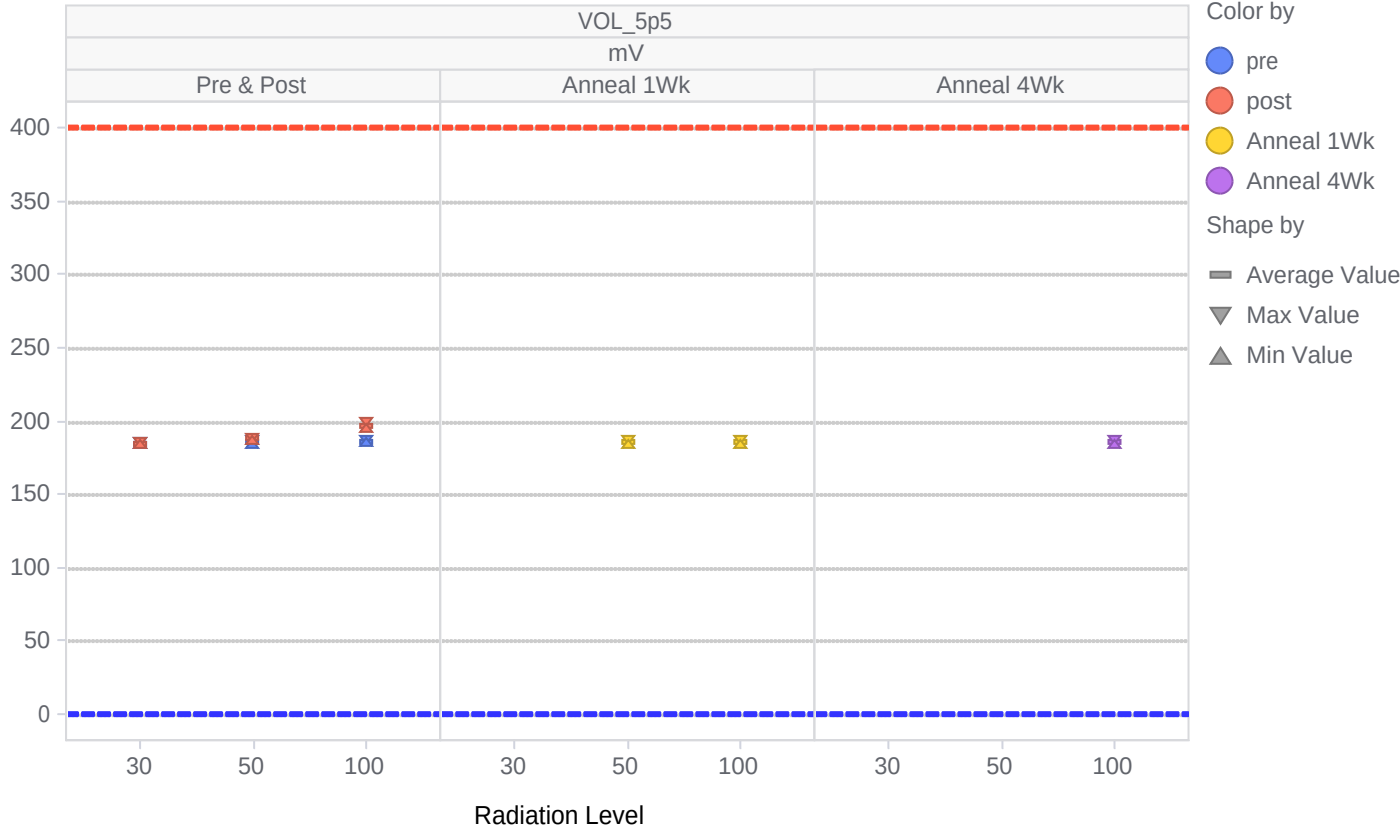
Radiation Level	PARTID	Delta		
		VOL_5p5		
		mV		
		post	Anneal 1Wk	Anneal 4Wk
30	1	-0.06	.	.
	2	-0.19	.	.
	3	0.00	.	.
	4	1.19	.	.
	5	0.12	.	.
50	6	3.06	0.62	.
	7	3.37	2.25	.
	8	3.19	0.50	.
	9	2.44	-0.50	.
	10	2.31	-1.31	.
100	11	11.74	0.69	0.31
	12	10.62	0.19	-0.25
	13	11.06	-1.37	-1.62
	14	9.31	0.94	0.50
	15	8.62	-1.56	-1.75

Colors

All values

Avg, Min and Max of Recorded Values

Radiation Level	Parameter	pre	post	Anneal 1Wk	Anneal 4Wk
30	Max	185.10348	185.04101	.	.
	Avg	184.50	184.72	.	.
	Min	183.85	183.79	.	.
50	Max	186.38109	188.81726	186.38109	.
	Avg	185.42	188.29	185.73	.
	Min	184.13	187.51	184.76	.
100	Max	186.94328	198.68685	187.63041	187.25561
	Avg	186.14	196.41	185.92	185.58
	Min	185.38	194.69	184.88	184.63



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