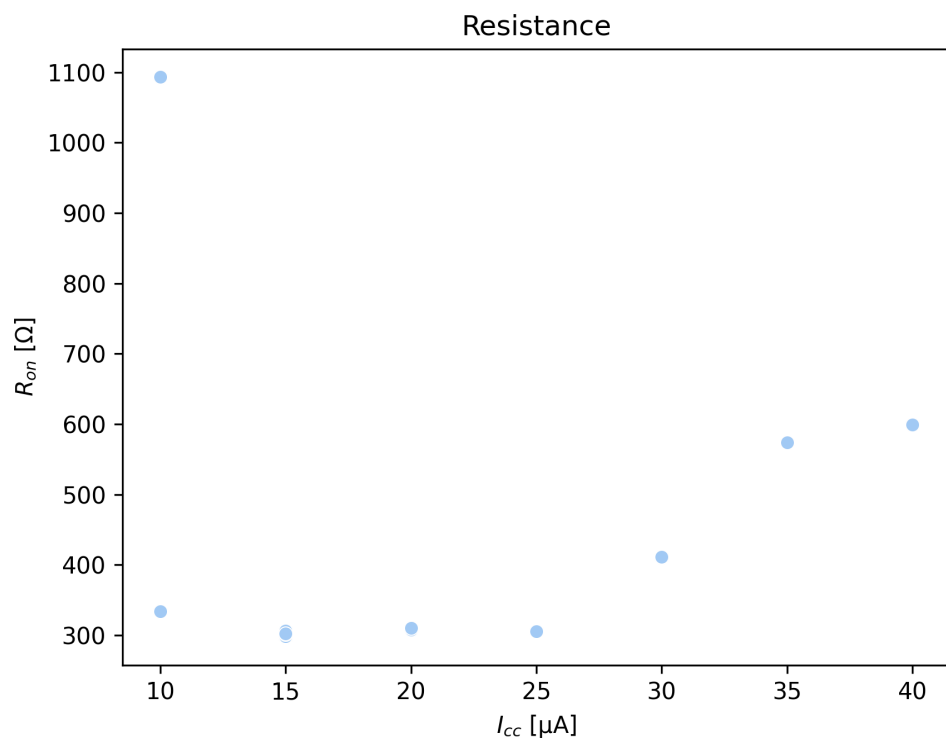# (wafer1,0,0,-1,-1,2,2) Characteristics

_____

- **Cell Size:** 10um
- **Times Accessed:** 27
- **Last Measurement:** 2022/February/28 at 05:01PM

Summary

Cycle #	Set Icc (µA)	Set Voltage (V)	R_on (Ω)	R2
1	10.0	2.80	333.83	1.000
2	10.0	2.80	96753327.60	0.194
3	20.0	4.15	309.44	1.000
4	20.0	4.15	308.05	1.000
5	20.0	4.15	310.35	1.000
6	25.0	4.35	305.26	1.000
7	30.0	4.55	411.54	1.000
8	35.0	4.50	574.24	0.998
9	40.0	4.40	599.46	0.998
10	10.0	2.20	1093.37	1.000
11	15.0	4.55	306.12	1.000
12	15.0	4.55	297.47	1.000
13	15.0	4.55	297.90	1.000
14	15.0	4.55	298.43	1.000
15	15.0	4.55	301.28	1.000
16	15.0	4.55	302.05	1.000

Resistance
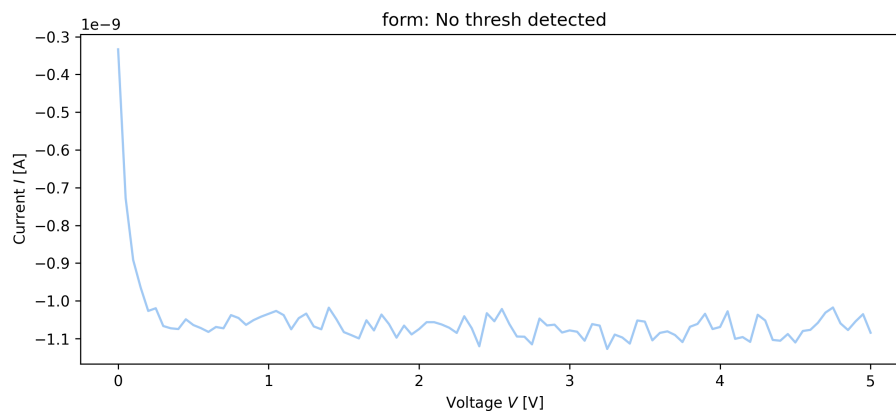
form

_____

- **Time:** 04:16:09PM
- **Icc:** 10.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 1
- **Error:** Set failed

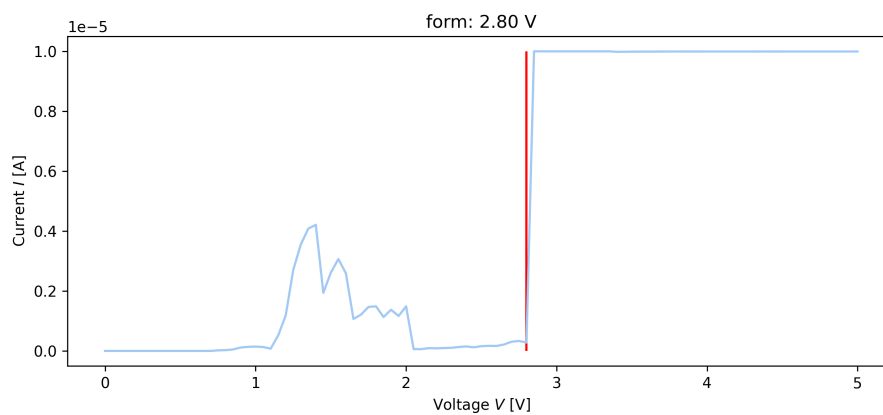Failure to form. Bad probe to pad contact. A: Copper, B: Platinum.

form

_____

- **Time:** 04:16:59PM
- **Icc:** 10.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.072 V/s*
- **Cycle:** 1
- **Set Voltage:** 2.80 V

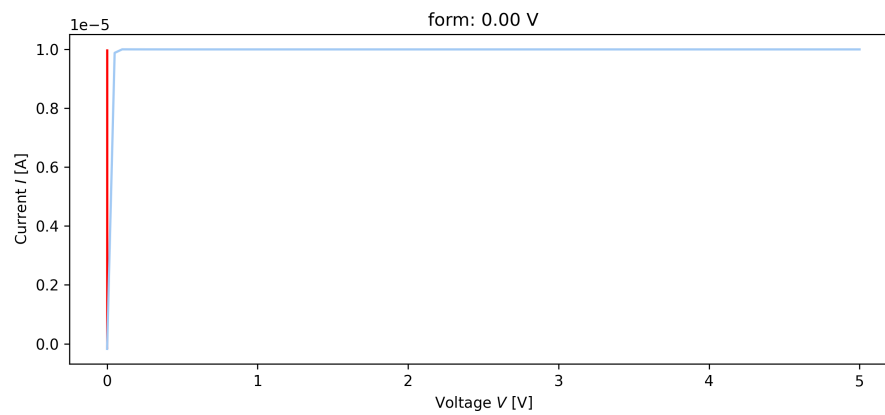Success, but strange curve in the beginning. A: Copper, B: Platinum.

form

_____

- **Time:** 04:17PM
- **Icc:** 10.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.842 V/s*
- **Cycle:** 1
- **Error:** Set failed

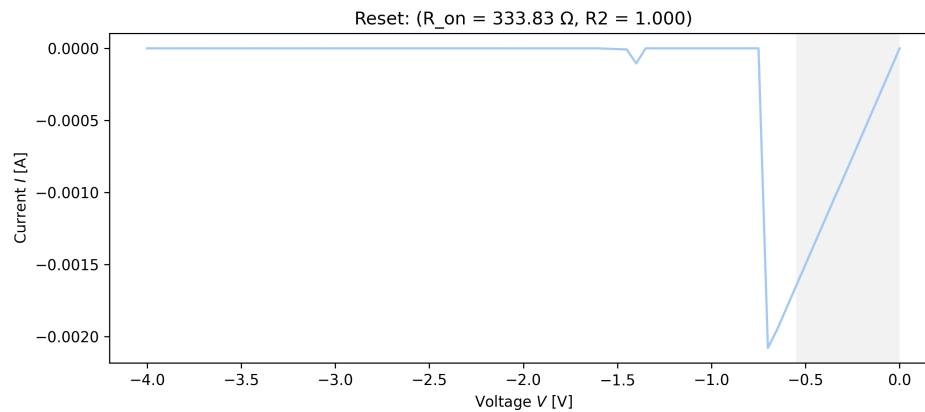Intention was just to observe, form success confirmed. A: Copper, B: Platinum.

reset

_____

- **Time:** 04:19PM
- **Icc:** 5.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.342 V/s*
- **Cycle:** 1
- **Resistance:** 333.83 Ω
- **Linear Fit R2:** 1.000

Success. AV column missing, copied from run 2202281620. This run was a near perfect reset. A: Copper, B: Platinum.
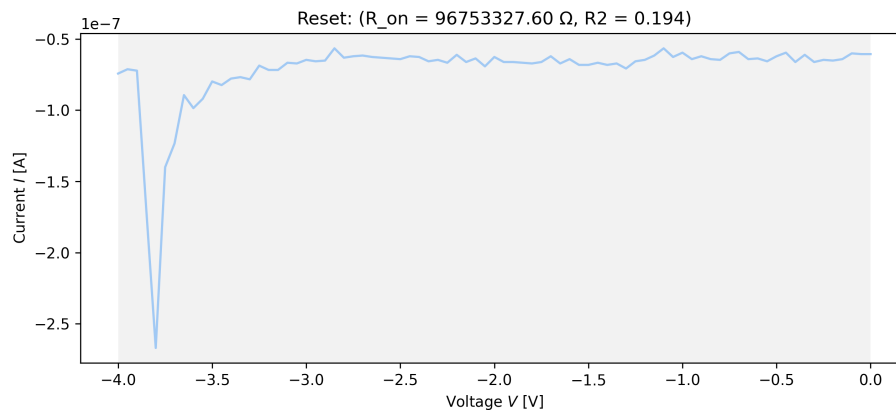

Reset: (R_on = 333.83 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:20PM
- **Icc:** 5.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.068 V/s*
- **Cycle:** 2
- **Resistance:** 96753327.60 Ω
- **Linear Fit R2:** 0.194

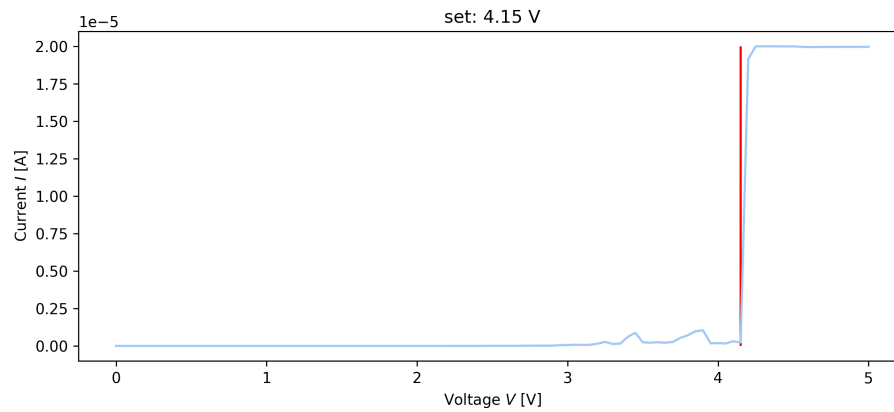Retry and observation from run 2202281619 due to missing AV column. A: Copper, B: Platinum.

Reset: (R_on = 96753327.60 Ω, R2 = 0.194)

set

_____

- **Time:** 04:26PM
- **Icc:** 20.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 3
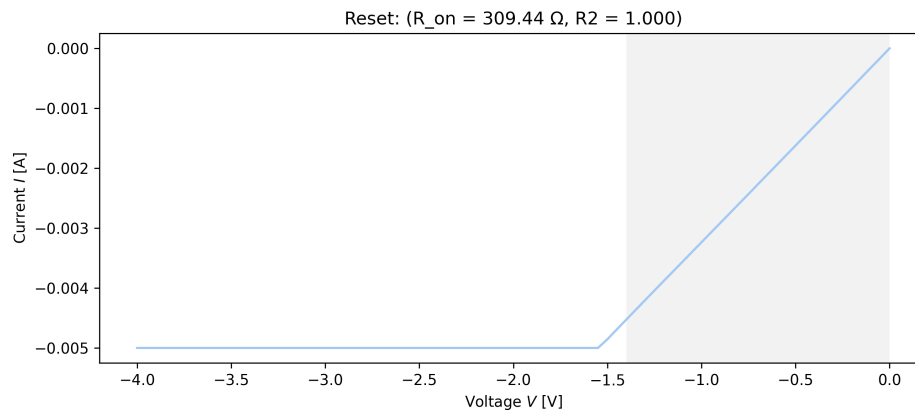- **Set Voltage:** 4.15 V

Successfull set. A: Copper, B: Platinum.

reset

_____

- **Time:** 04:29PM
- **Icc:** 5.0mA
- **Voltage Range:** 0V → -4V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.609 V/s*
- **Cycle:** 3
- **Resistance:** 309.44 Ω
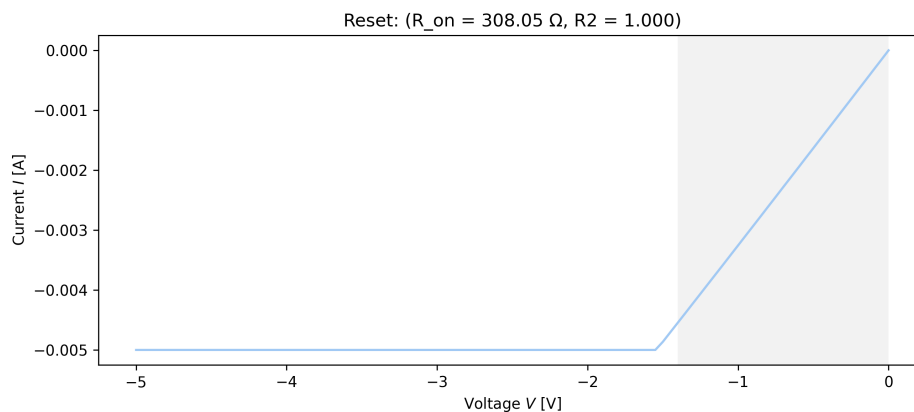- **Linear Fit R2:** 1.000

Failure to reset. A: Copper, B: Platinum.

Reset: (R_on = 309.44 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:30PM
- **Icc:** 5.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.609 V/s*
- **Cycle:** 4
- **Resistance:** 308.05 Ω
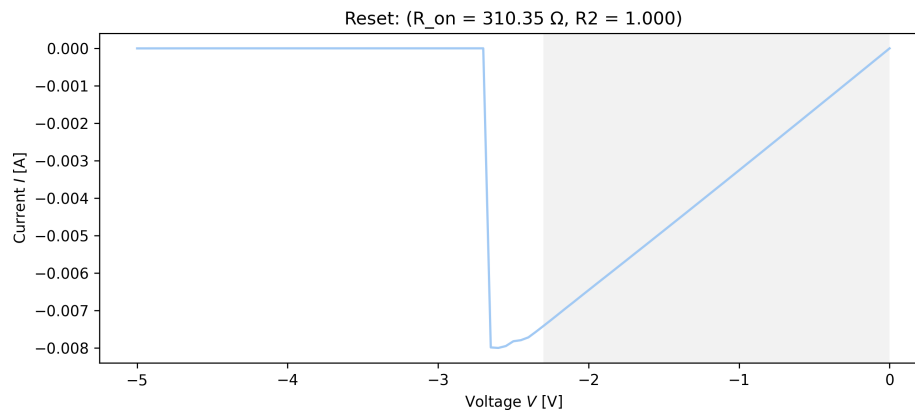- **Linear Fit R2:** 1.000

Reset failure. A: Copper, B: Platinum

Reset: (R_on = 308.05 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:31PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.608 V/s*
- **Cycle:** 5
- **Resistance:** 310.35 Ω
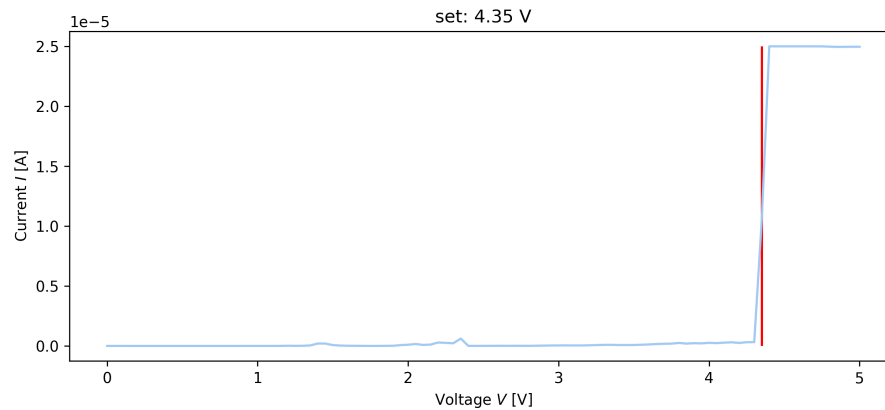- **Linear Fit R2:** 1.000

Reset success. A: Copper, B: Platinum.

Reset: (R_on = 310.35 Ω, R2 = 1.000)

set

_____

- **Time:** 04:34PM
- **Icc:** 25.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 6
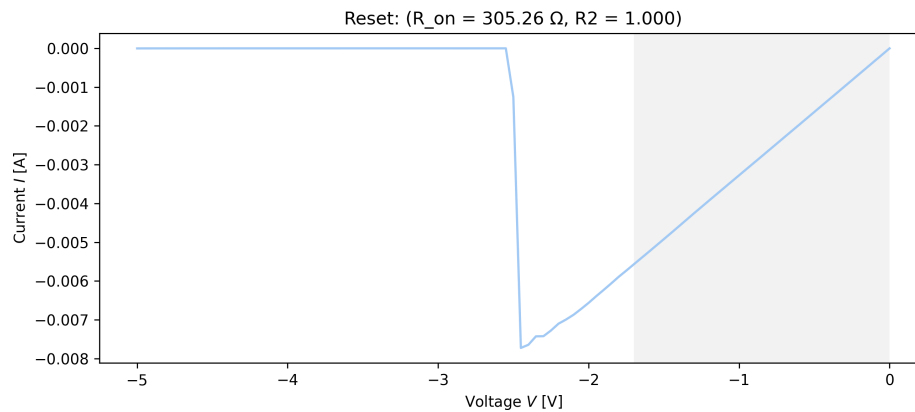- **Set Voltage:** 4.35 V

Successful set. A: Copper, B: Platinum.

reset

_____

- **Time:** 04:36PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.609 V/s*
- **Cycle:** 6
- **Resistance:** 305.26 Ω
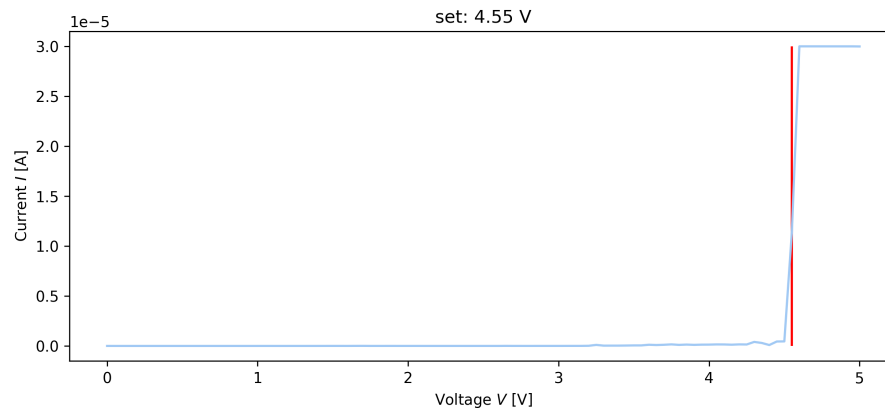- **Linear Fit R2:** 1.000

Successful reset. A: Copper, B: Platinum.

Reset: (R_on = 305.26 Ω, R2 = 1.000)

set

_____

- **Time:** 04:37PM
- **Icc:** 30.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 7
- **Set Voltage:** 4.55 V

Set success. A: Copper, B: Platinum.

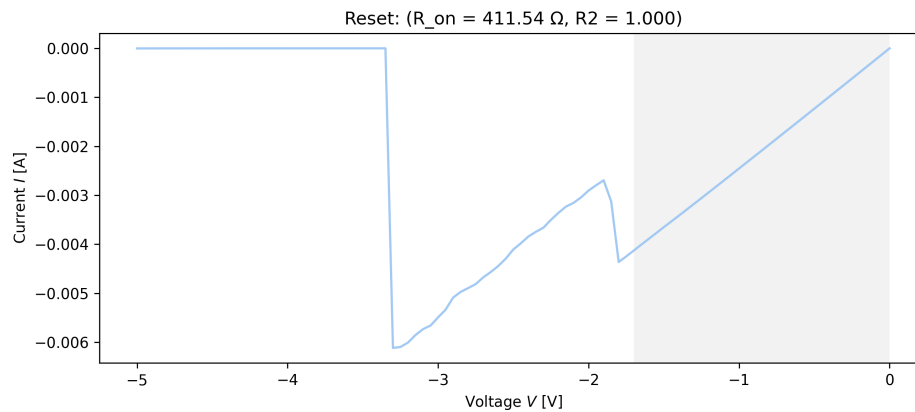# reset

_____

- **Time:** 04:38PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V $\rightarrow$ -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.514 V/s*
- **Cycle:** 7
- **Resistance:** 411.54 Ω
- **Linear Fit R2:** 1.000
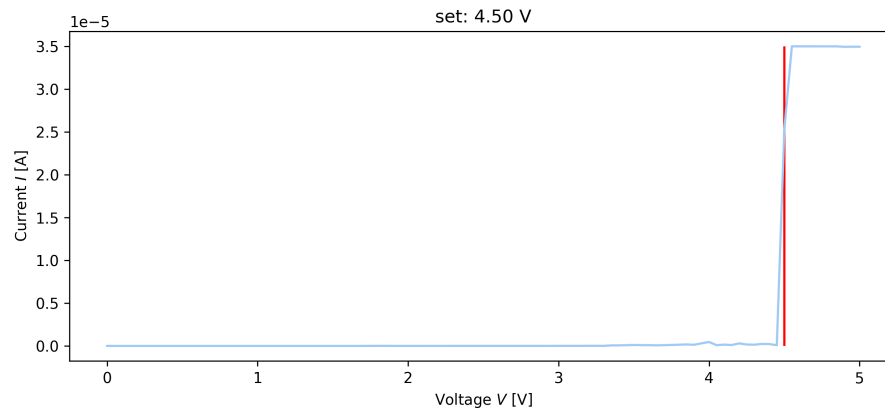
Reset success. But not smooth. A: Copper, B: Platinum.

Reset: (R_on = 411.54 Ω, R2 = 1.000)

set

_____

- **Time:** 04:40PM
- **Icc:** 35.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.068 V/s*
- **Cycle:** 8
- **Set Voltage:** 4.50 V

Set success. A: Copper, B: platinum

reset
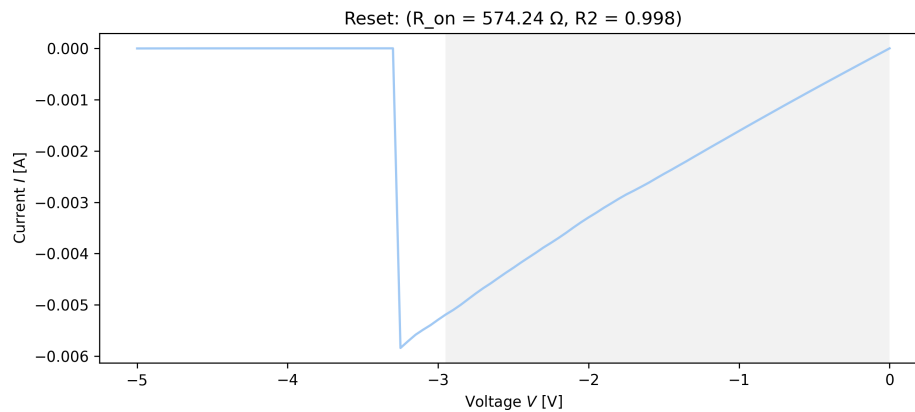
_____

- **Time:** 04:41PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.352 V/s*
- **Cycle:** 8
- **Resistance:** 574.24 Ω
- **Linear Fit R2:** 0.998
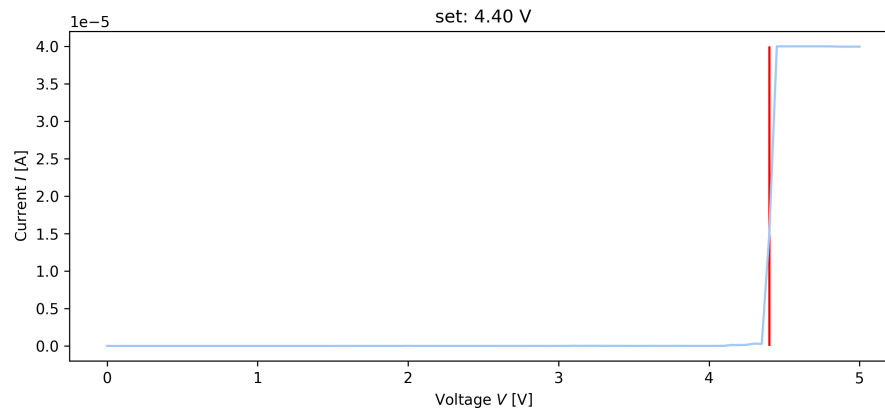
Successful reset, very smooth. A: Copper, B: Platinum.

Reset: (R_on = 574.24 Ω, R2 = 0.998)

set

_____

- **Time:** 04:45:00PM
- **Icc:** 40.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 9
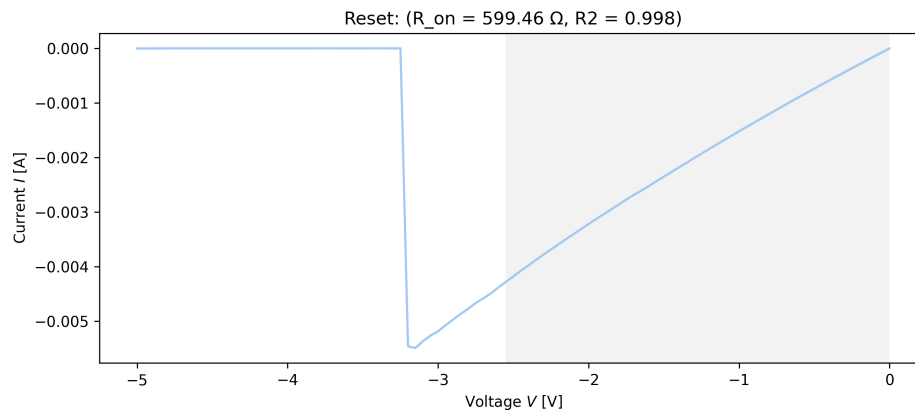- **Set Voltage:** 4.40 V

Set sucess. A: Copper, B: Platinum.

reset

_____

- **Time:** 04:45:54PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.351 V/s*
- **Cycle:** 9
- **Resistance:** 599.46 Ω
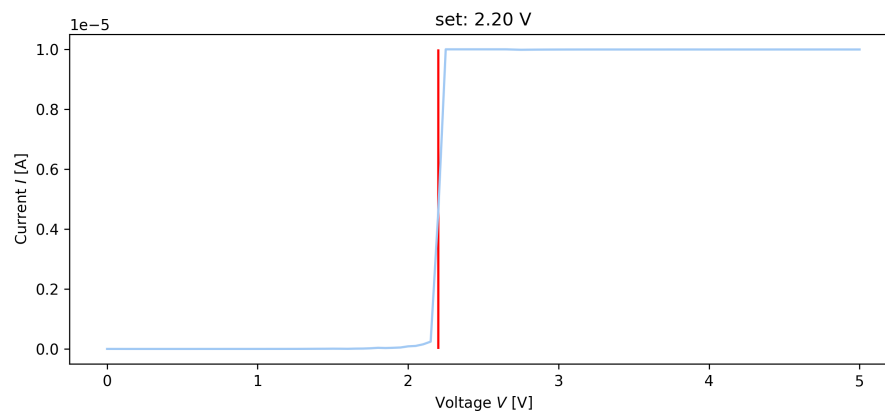- **Linear Fit R2:** 0.998

Successful reset. A: Copper, B: Platinum

Reset: (R_on = 599.46 Ω, R2 = 0.998)

set

_____

- **Time:** 04:47PM
- **Icc:** 10.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 10
- **Set Voltage:** 2.20 V

Successful set. A: Copper, B: Platinum.

reset

_____

- **Time:** 04:48PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.091 V/s*
- **Cycle:** 10
- **Resistance:** 1093.37 Ω
- **Linear Fit R2:** 1.000

Successful reset, but very janky. A: Copper, B: Platinum.

Reset: (R_on = 1093.37 Ω, R2 = 1.000)

set

_____

- **Time:** 04:51PM
- **Icc:** 15.0uA
- **Voltage Range:** 0V → 5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** 1.069 V/s*
- **Cycle:** 11
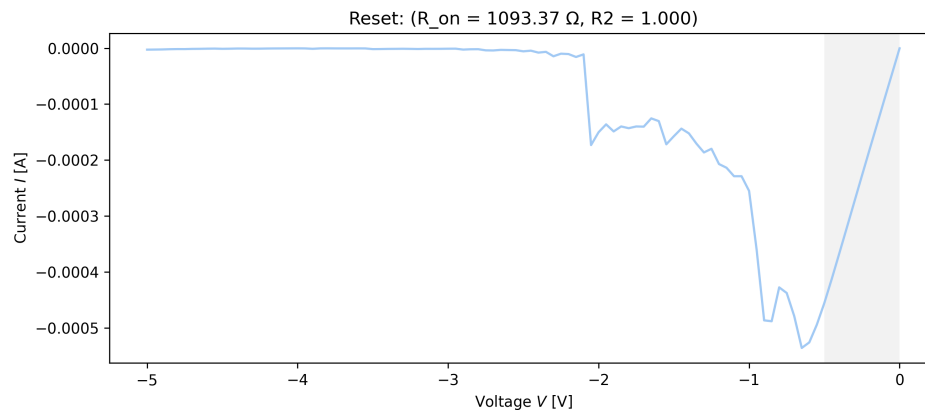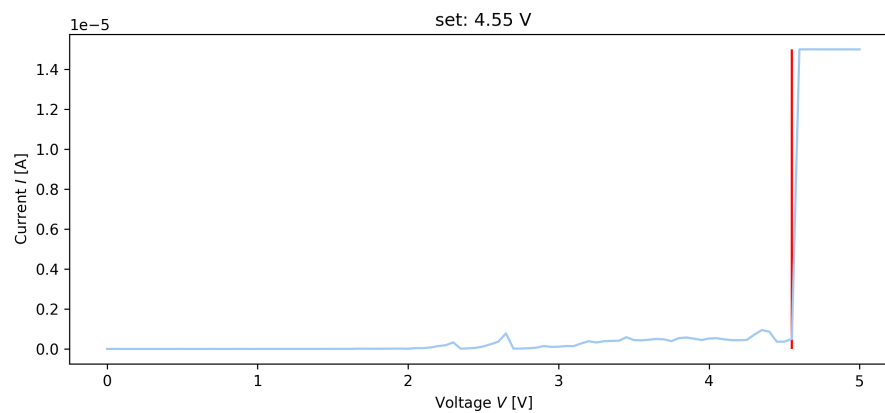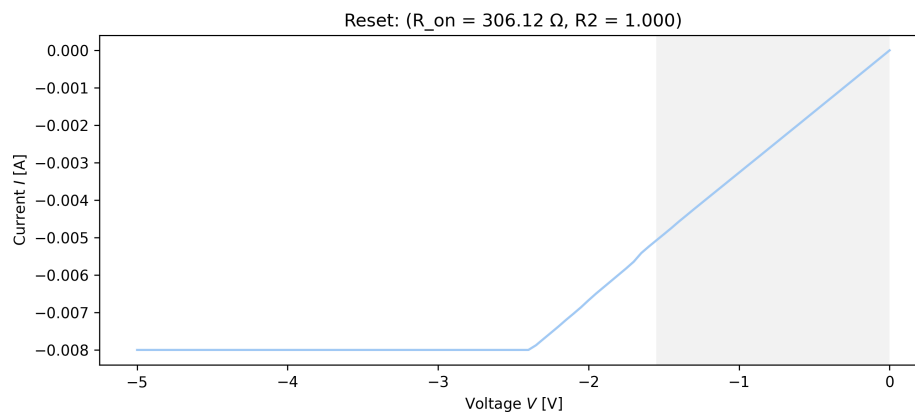- **Set Voltage:** 4.55 V

Successful set. A: Copper, B: Platinum.

reset

_____

- **Time:** 04:54PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.609 V/s*
- **Cycle:** 11
- **Resistance:** 306.12 Ω
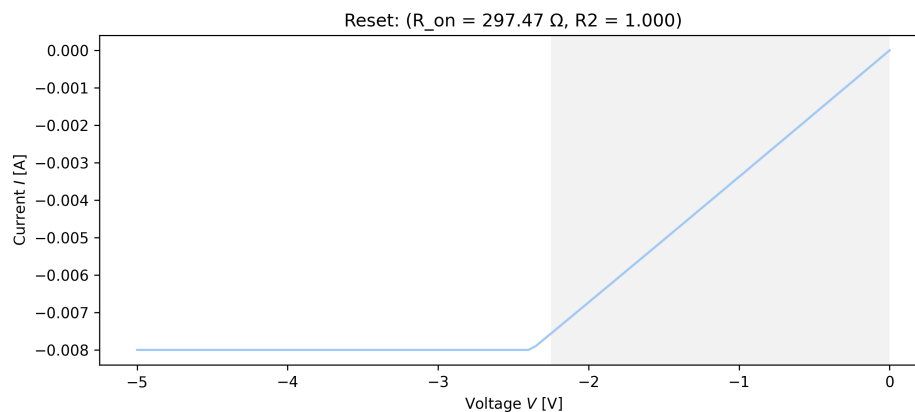- **Linear Fit R2:** 1.000

Reset failed. A: Copper, B: Platinum

Reset: (R_on = 306.12 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:55:04PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.609 V/s*
- **Cycle:** 12
- **Resistance:** 297.47 Ω
- **Linear Fit R2:** 1.000

Reset failed. A: Copper, B: Platinum.

Reset: (R_on = 297.47 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:55:32PM
- **Icc:** 9.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.609 V/s*
- **Cycle:** 13
- **Resistance:** 297.90 Ω
- **Linear Fit R2:** 1.000

Reset failed. Something wrong, cell is possibly burnt out (i.e. too strong of a filament. A: Copper, B: Platinum.

Reset: (R_on = 297.90 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:57PM
- **Icc:** 10.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.610 V/s*
- **Cycle:** 14
- **Resistance:** 298.43 Ω
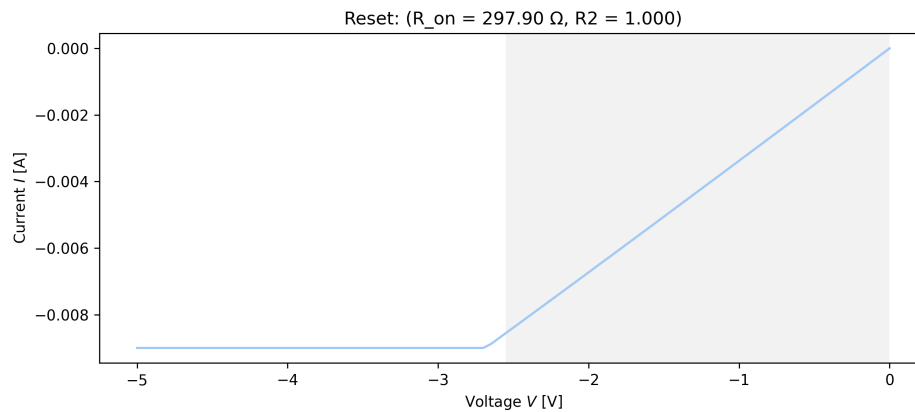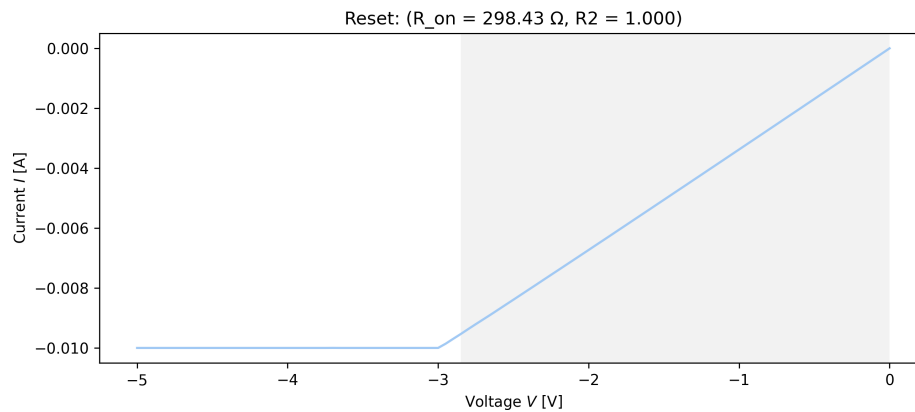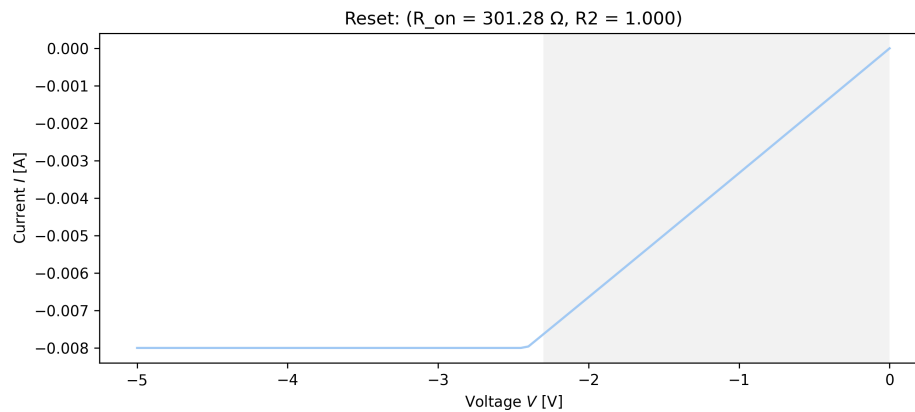- **Linear Fit R2:** 1.000

Reset failed. A: Copper, B: Platinum

Reset: (R_on = 298.43 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:59:04PM
- **Icc:** 8.0mA
- **Voltage Range:** 0V → -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.610 V/s*
- **Cycle:** 15
- **Resistance:** 301.28 Ω
- **Linear Fit R2:** 1.000

Failed reset again. A: Copper, B: Platinum.

Reset: (R_on = 301.28 Ω, R2 = 1.000)

reset

_____

- **Time:** 04:59:43PM
- **Icc:** 15.0mA
- **Voltage Range:** 0V $\rightarrow$ -5V
- **Target Ramp Rate:** 1V/s
- **True Ramp Rate:** -1.087 V/s*
- **Cycle:** 16
- **Resistance:** 302.05 Ω
- **Linear Fit R2:** 1.000

Reset fail. Cell damage confirmed. A: Copper, B: Platinum.

Reset: (R_on = 302.05 Ω, R2 = 1.000)