



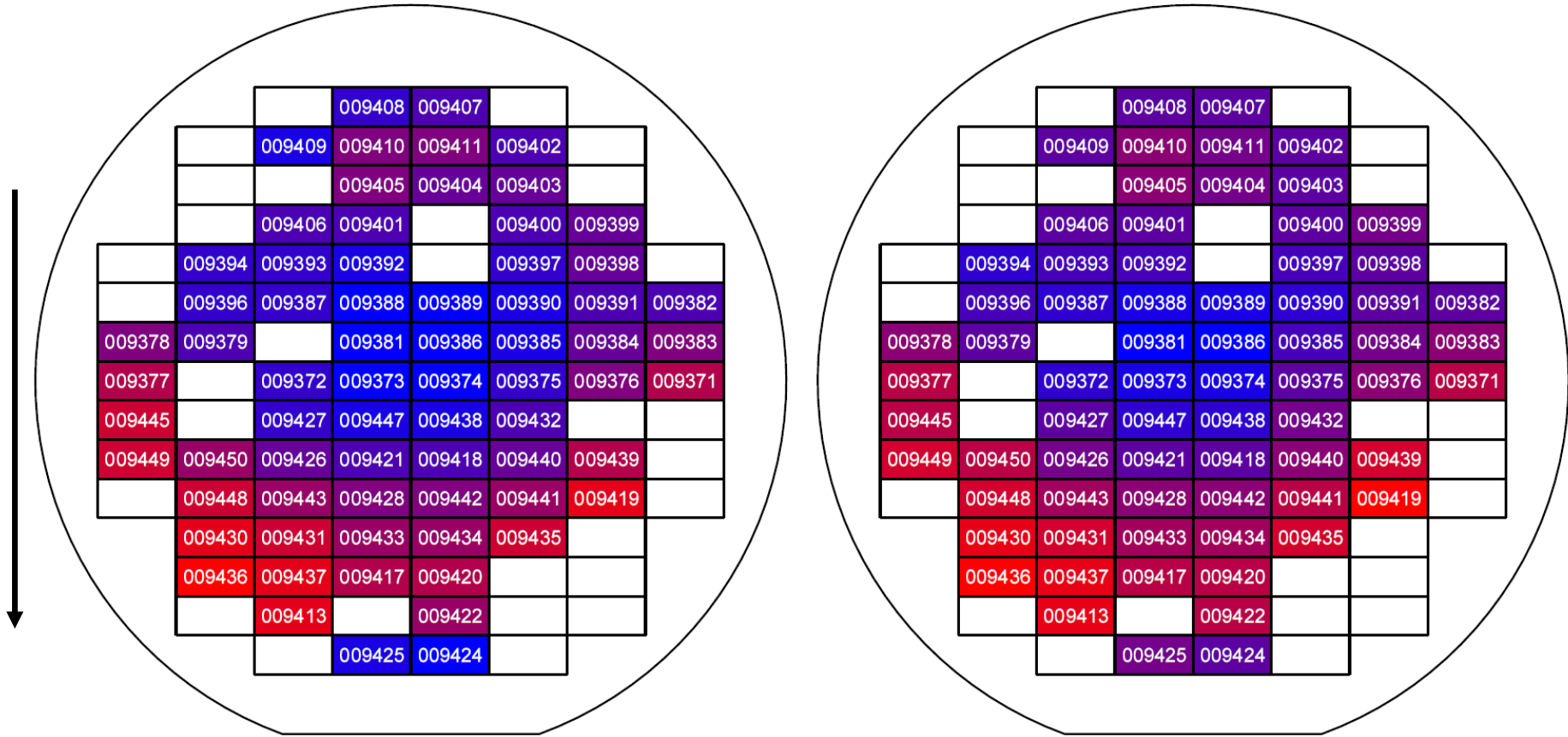
APD screening status & results

Screened so far:

- 208 series à 20 APDs (4160 pieces) @ $T = 20\text{ °C}$
 - data validated for ~3884 pieces
- 145 series à 20 APDs (2900) @ all 5 temperatures
 - data analysed for ~1600 pieces ->validation in progress

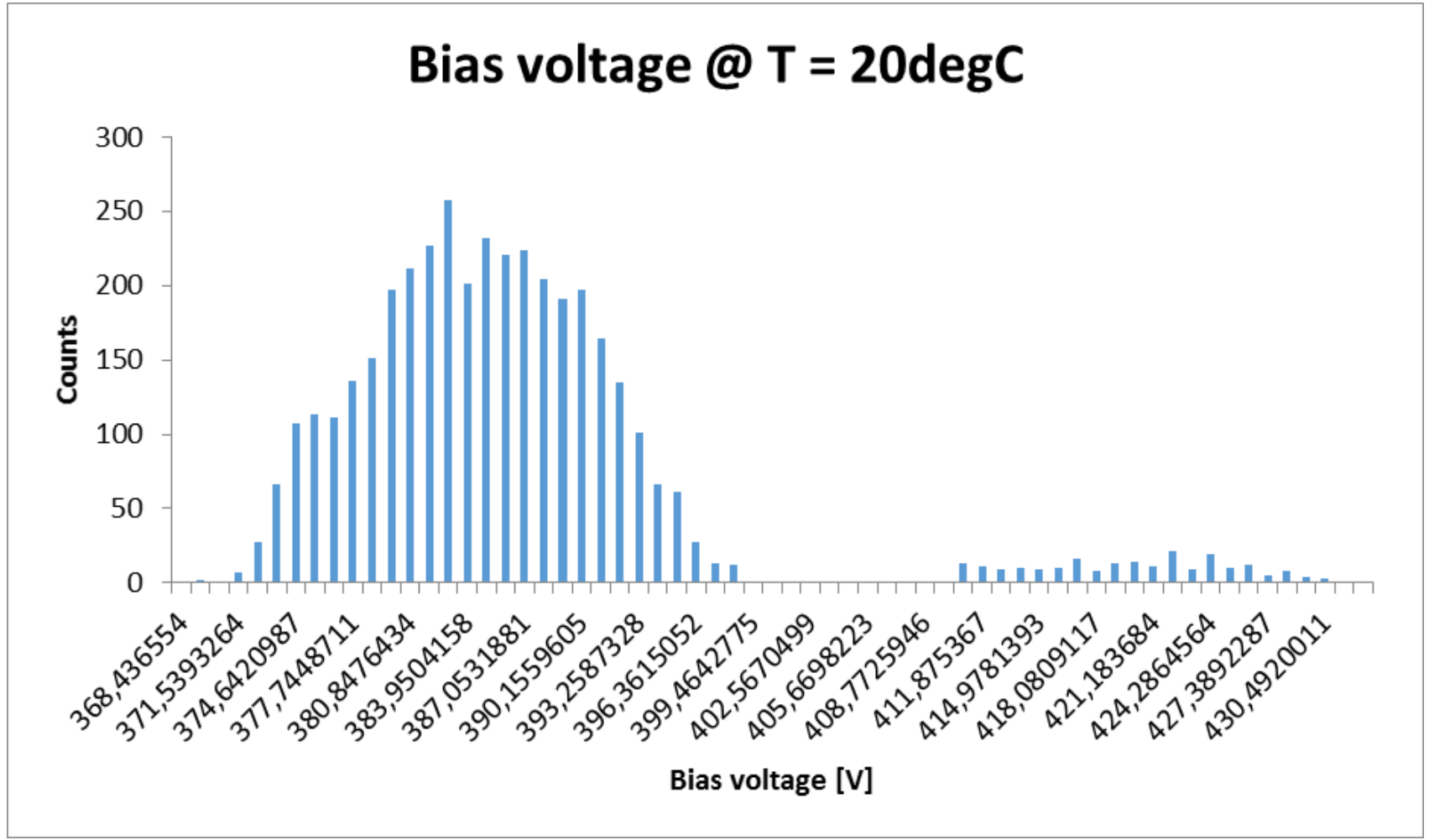
Example:
LOT 9
Wafer No 6

Voltage „Drift“ on
each wafer in
the order of 10-19 V



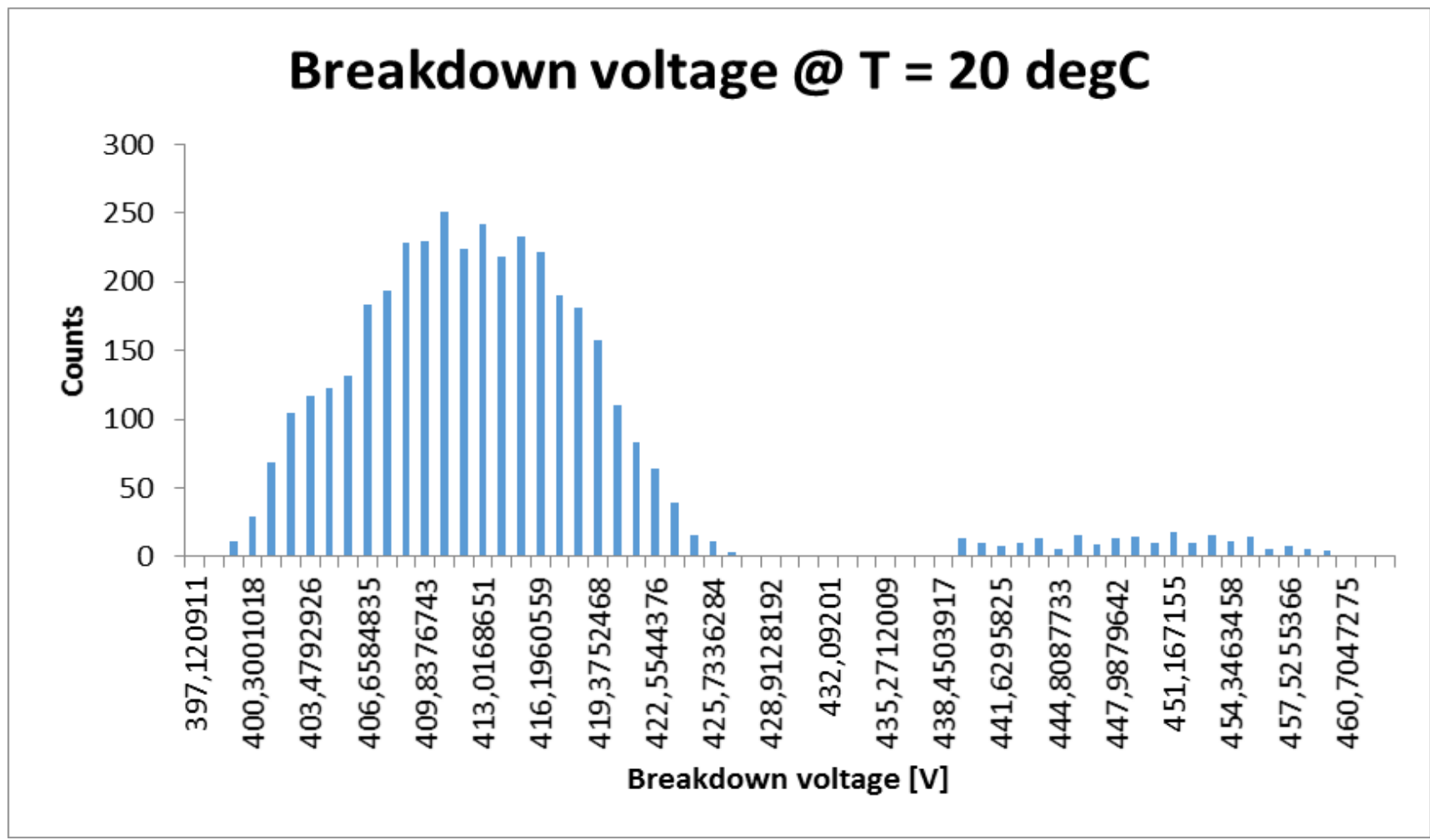
Range due to technical specs:

U_{Bias} ($M = 100$, $T = 20 \text{ }^\circ\text{C}$):
365 V - 445 V



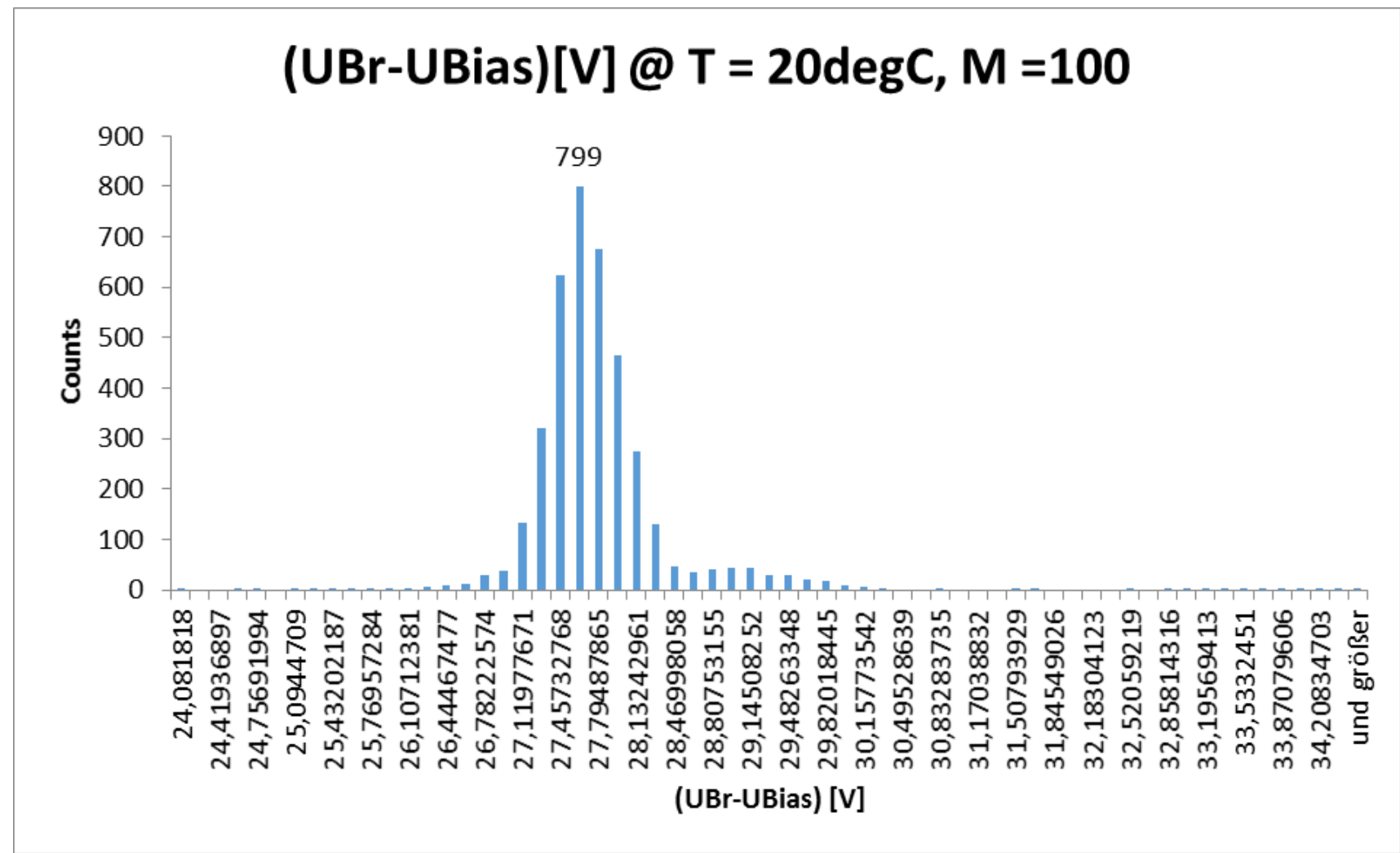
Range due to technical specs:

min: --
 typ: 420 V
 max: 500 V

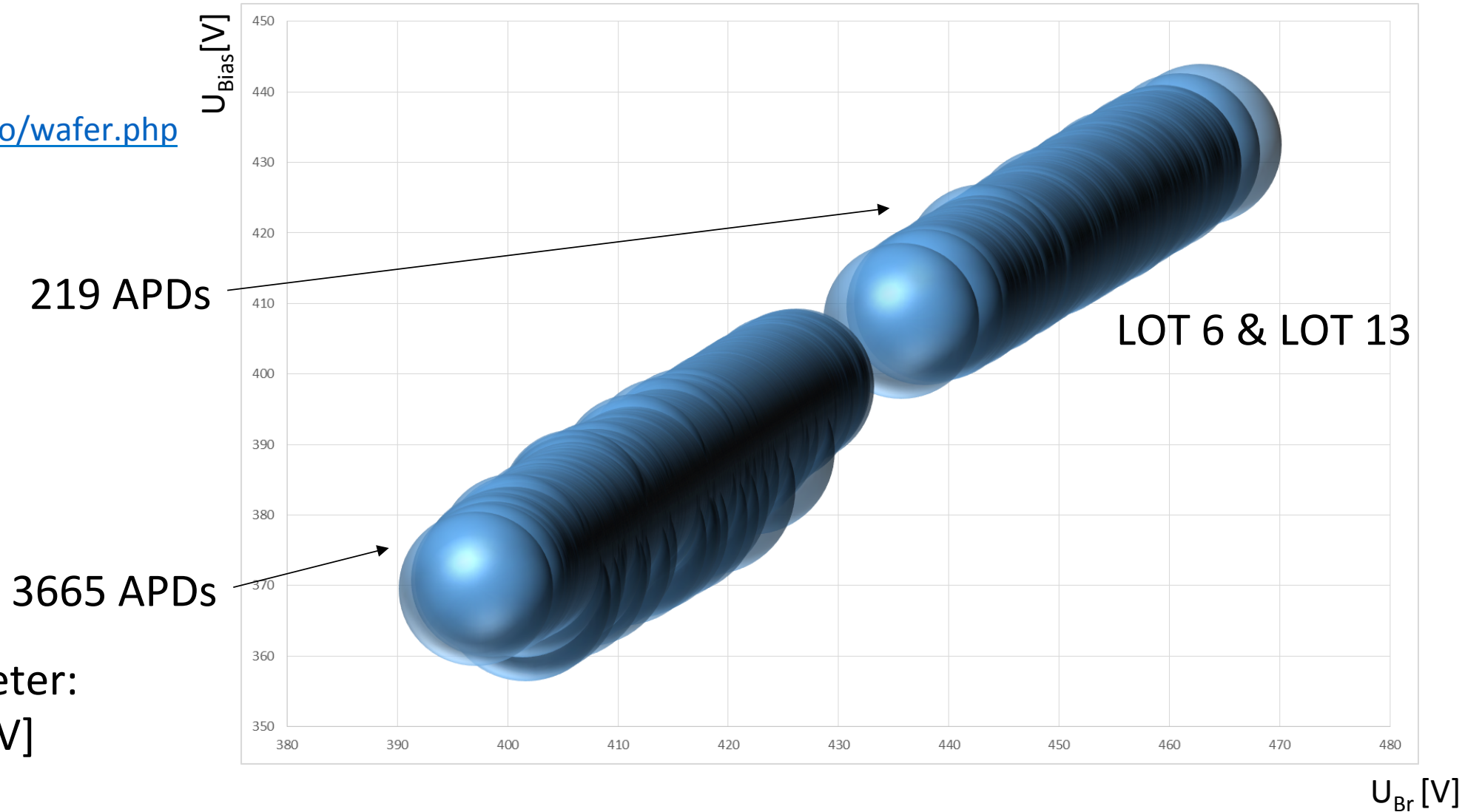


Range due to technical specs:

min: 24 V



<http://apdlab.de/info/wafer.php>



Range due to technical specs:

min: 4.1 %

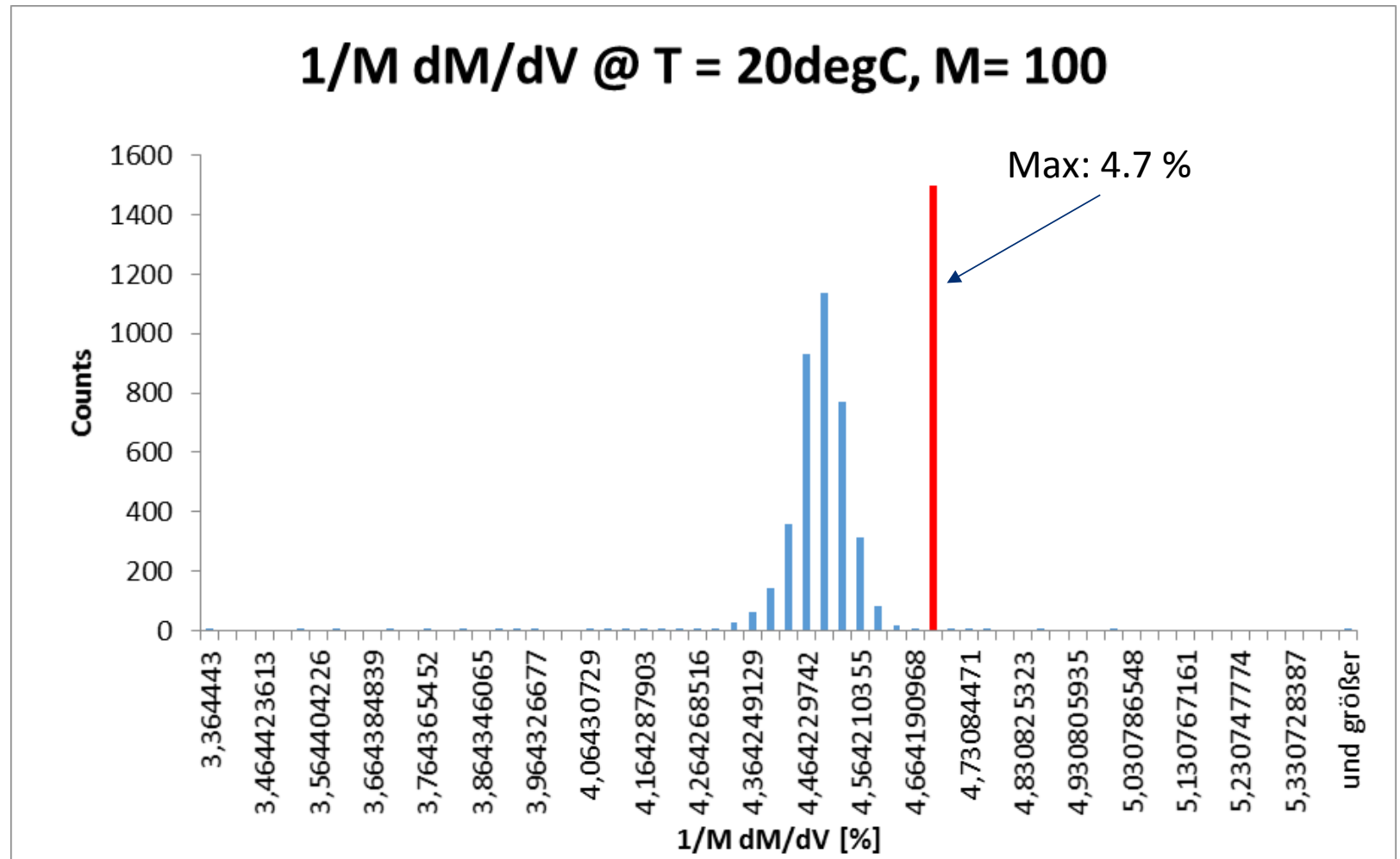
typ: 4.4 %

max: 4.7 %

Below specs: 17 APDs

Above specs: 8 APDs

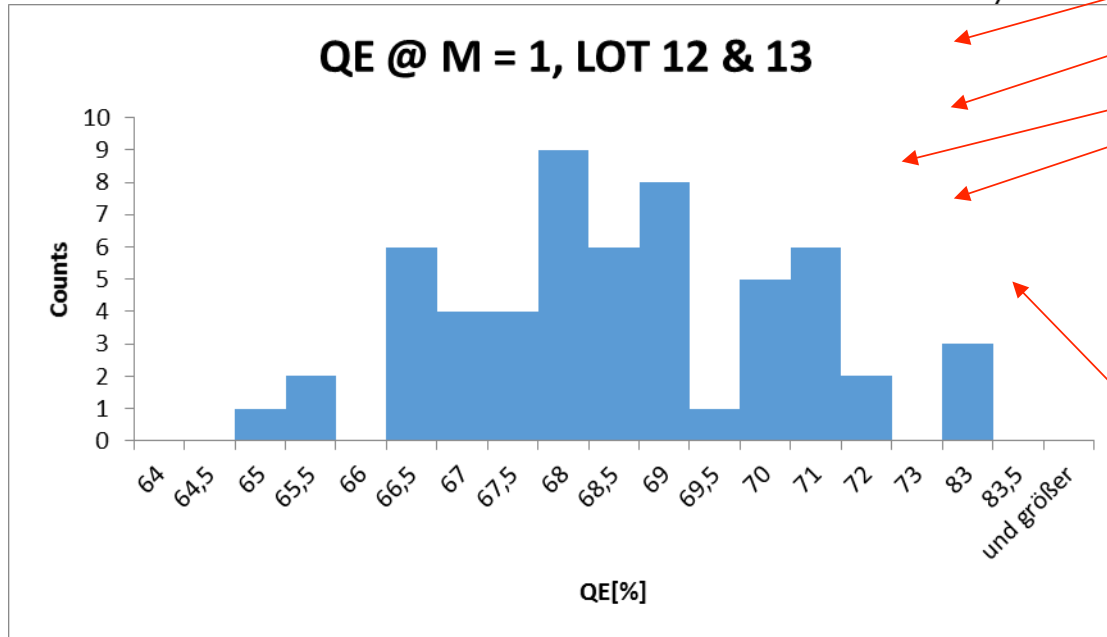
Analysis will be re-done for final validation!



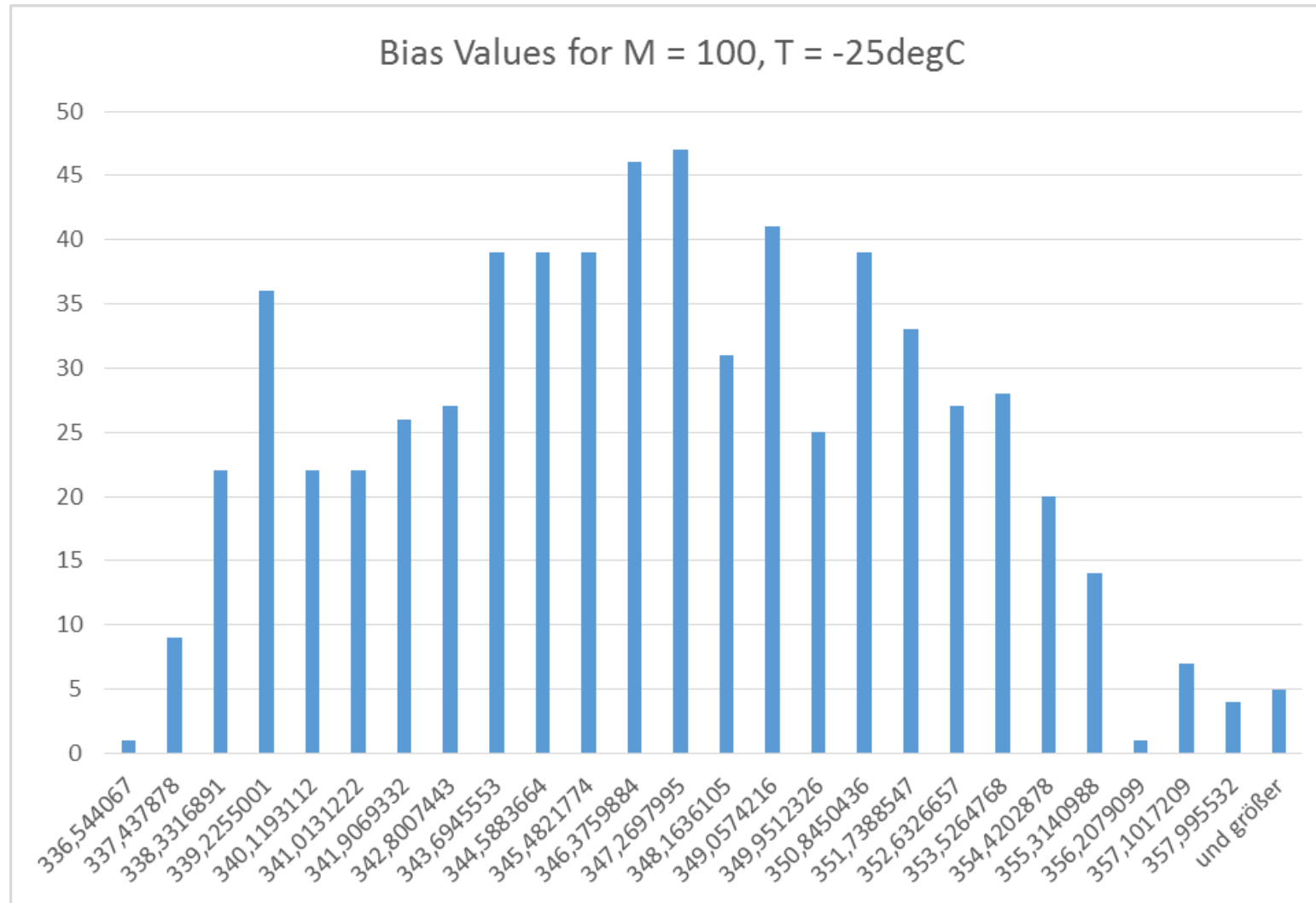
Measured so far: 280 APDs
 validated so far: LOT 12 & 13

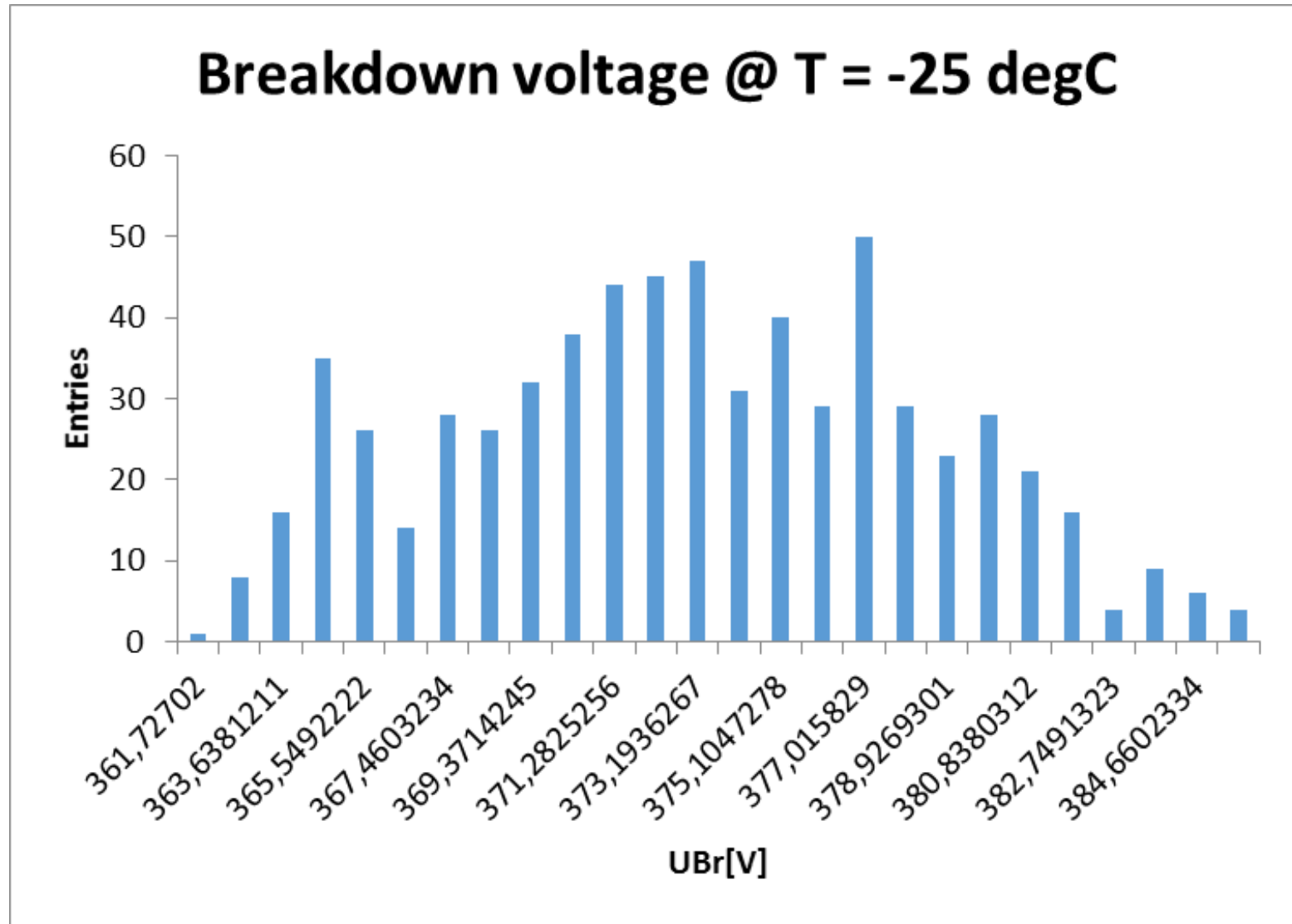
Range due to
 technical specs:

min: 65 %
 typ: 70 %
 max: 90 %

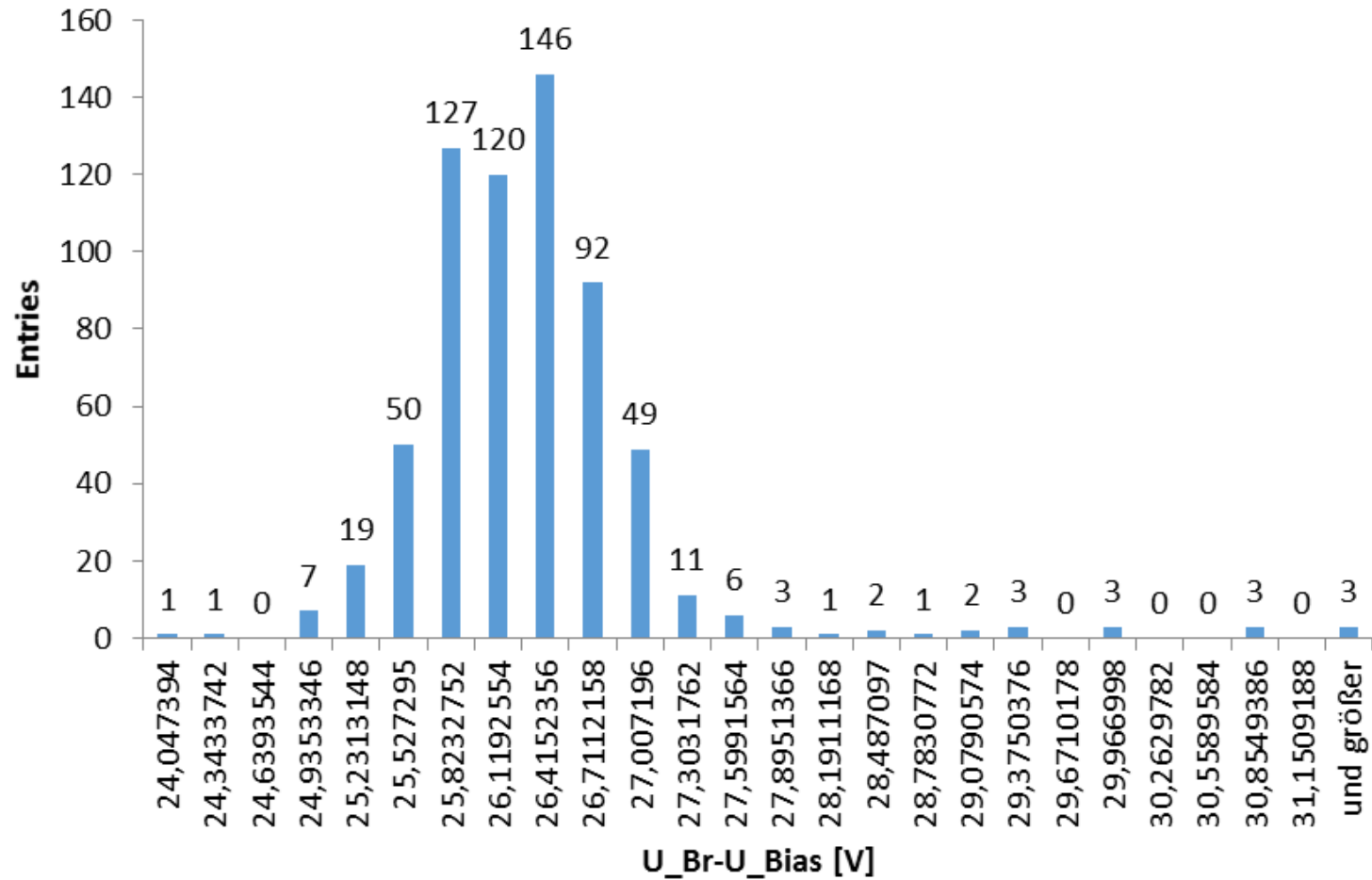


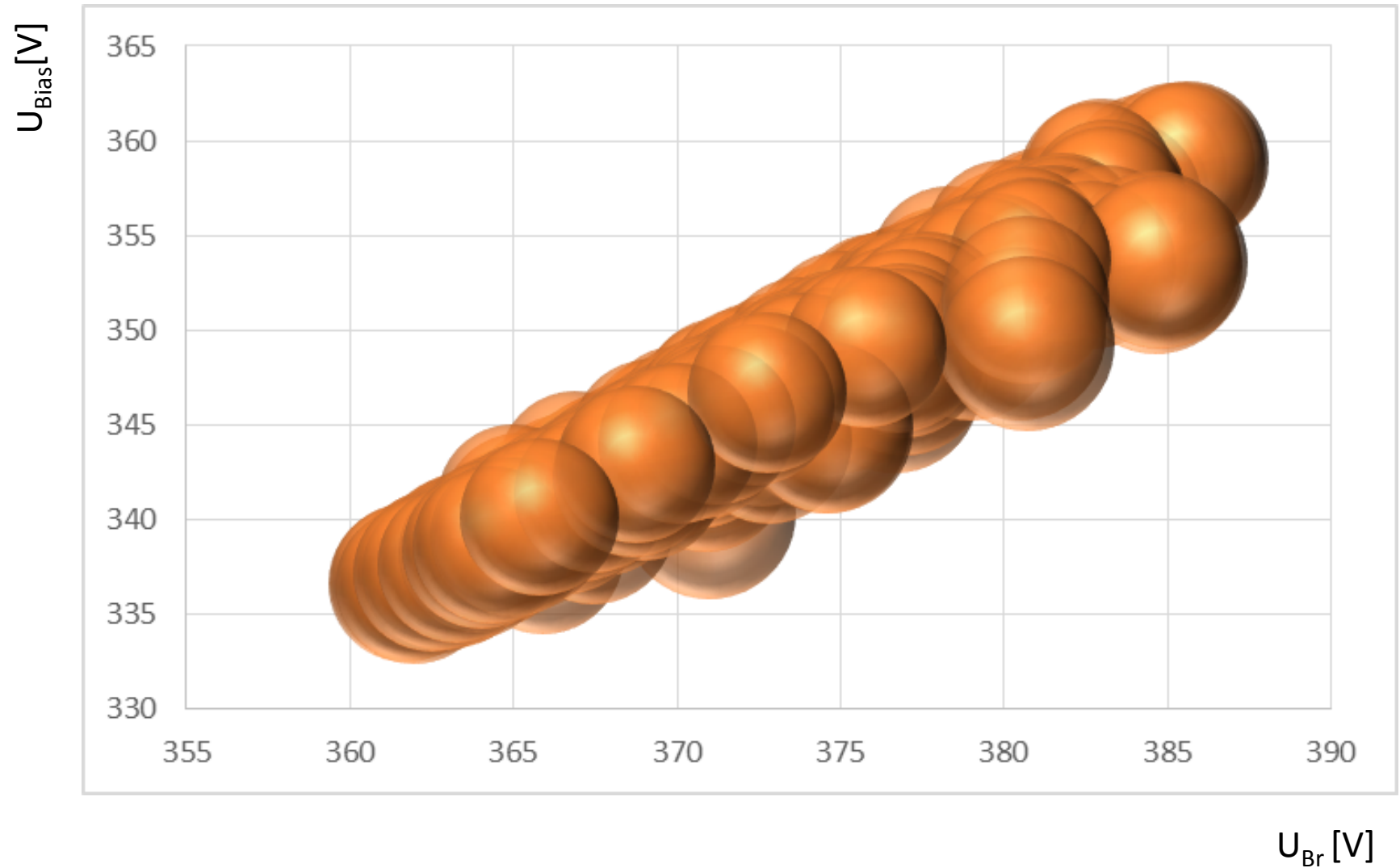
		013057	013020		
	013056	013035 68.939	013030	013025	
	013019	013024	013029	013034	
013080	013079	013074 66.876		013067	013064
013063	013068 66.959	013070	013065	013076	013083
	013084	013075	013066	013071	013060
013078	013081	013062	013069	013072	
013039	013055	013051	013047	013061	013082
013044	013054	013077	013017		
013026	013021	013016	013058	013032	
013041	013049	013045	013053		
		013033			
013050	013037		013052	013046	
		013043	013038		
		013040 66.248			

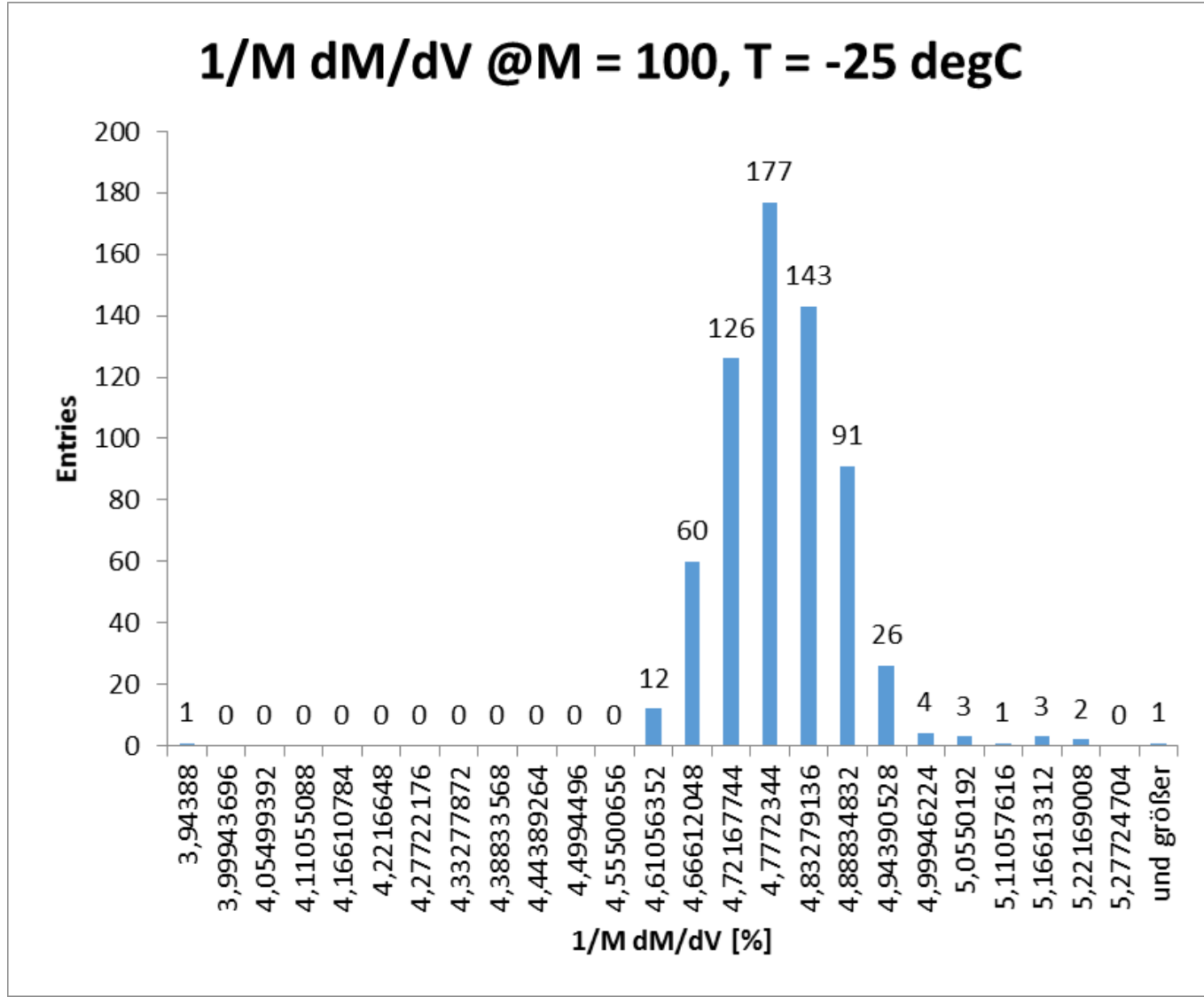




$U_{Br} - U_{Bias}$ for $M = 100$, @ $T = -25\text{degC}$

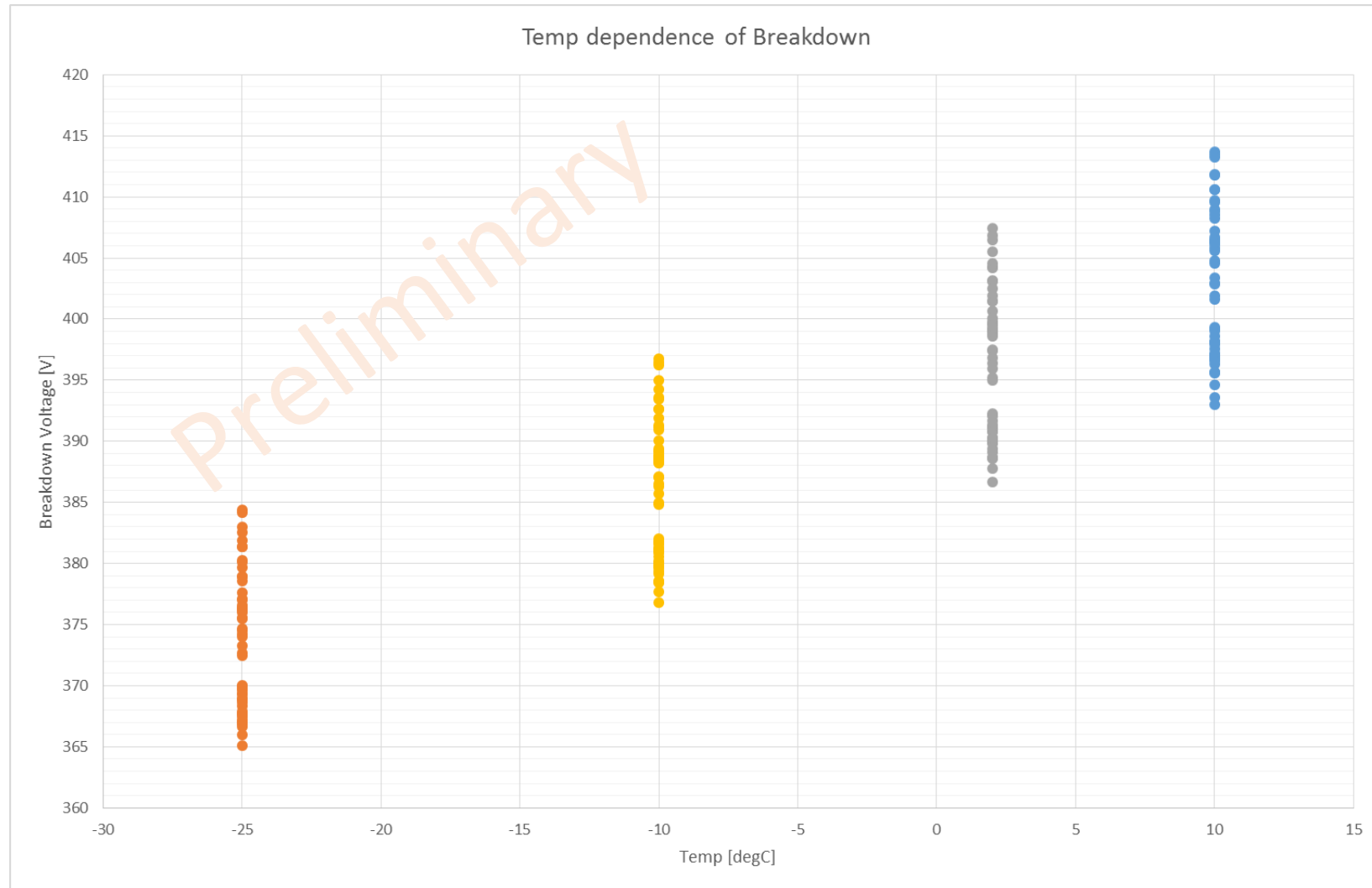






Sample of 60 APDs
of LOT 7

->not validated yet
(without temperature
adjustment)



- 4160 APDs measured @ 20°C
 - 3884 APD data validated so far for room temperature
 - 25 APDs have to pass 2nd step of validation
- 2900 APDs measured at all 5 temperatures so far
 - ~1600 data sets analysed so far
 - validation ongoing
- 280 APDs screened concerning QE
 - validated for LOT 12 & 13
 - analysis ongoing
- Data base and webpages in test mode: upload to GSI server soon
- Members of APD group could be enlarged ->doubled last week:
 - actual status of personel: 10 students for shift operation so far