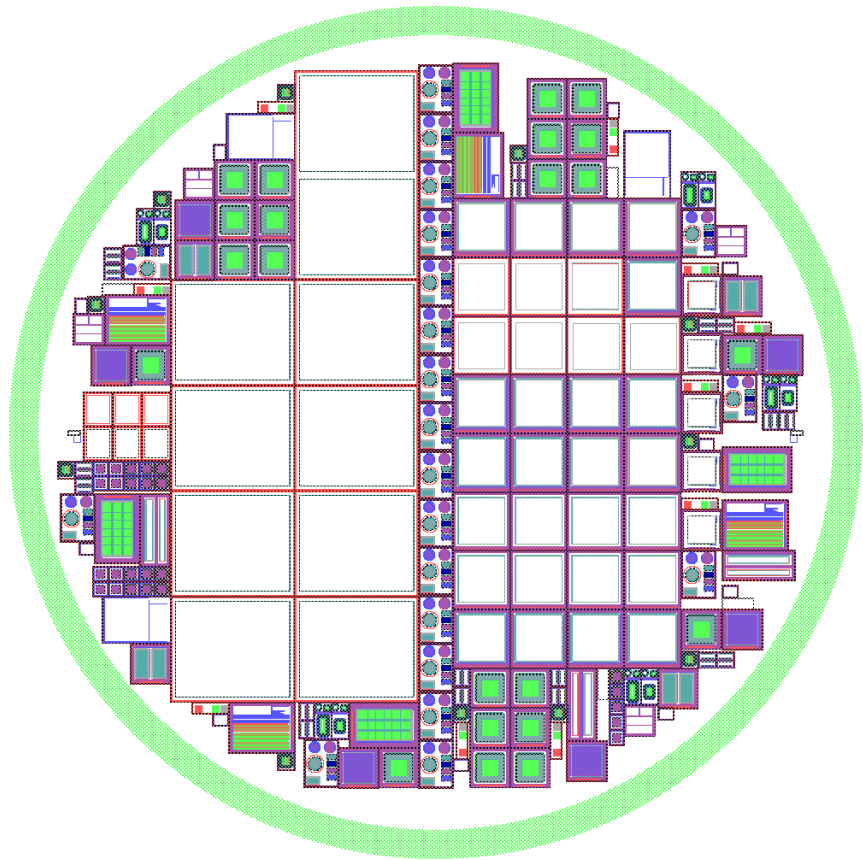


# ATLAS-CMS

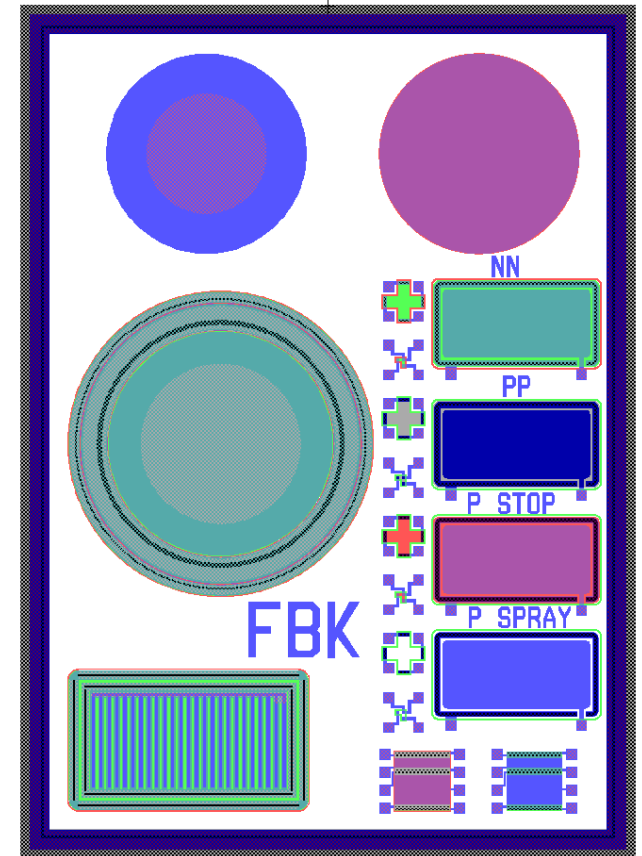
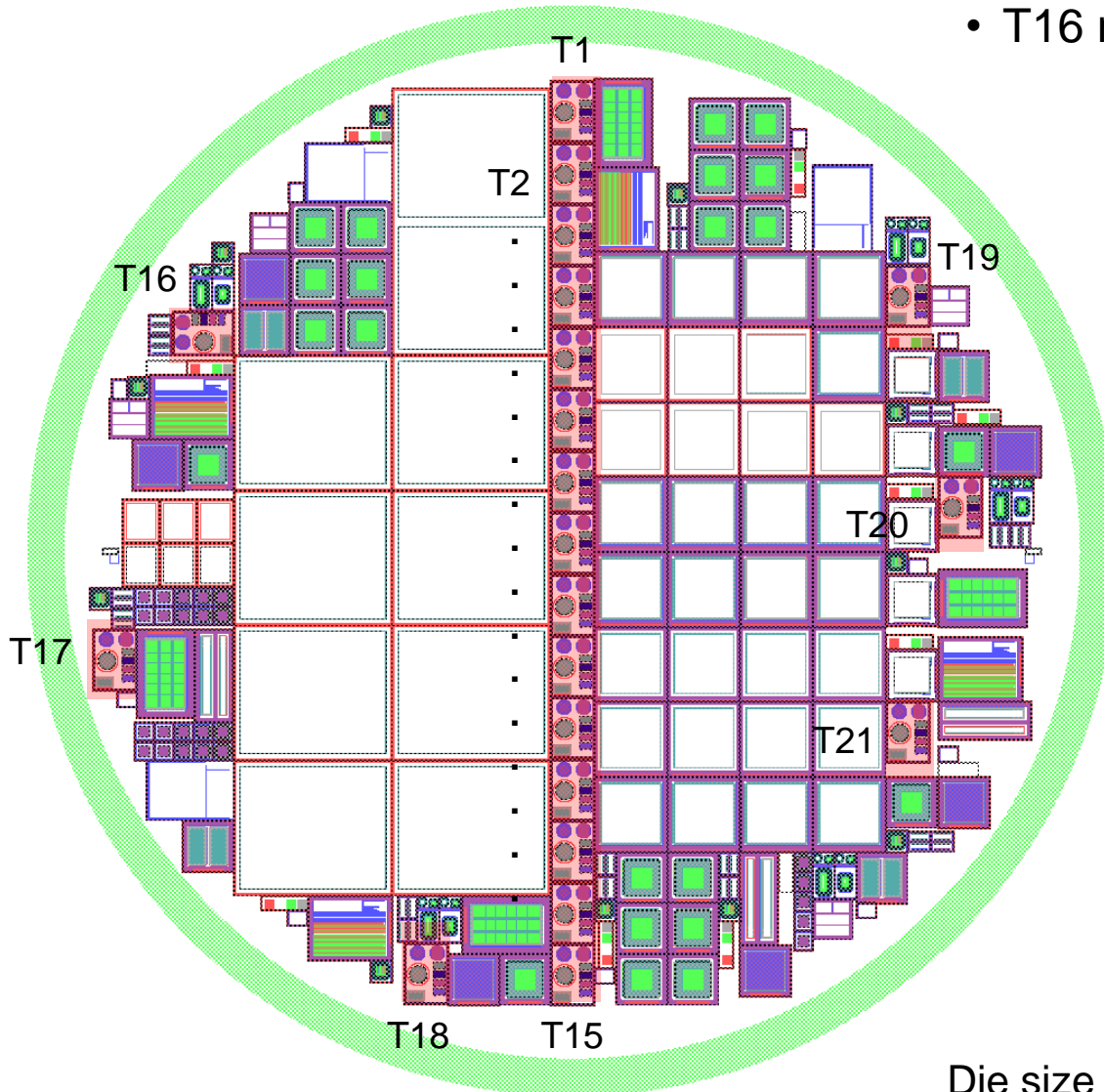
## pixel planari



wafer #	material	thickness	p-spray
30	Si-Si	100	2.00E+12
33	Si-Si	100	2.00E+12
49	Si-Si	100	2.00E+12
63	Si-Si	130	2.50E+12
69	Si-Si	130	2.50E+12
74	Si-Si	130	2.00E+12
75	Si-Si	130	2.00E+12
80	Si-Si	130	1.50E+12
81	Si-Si	130	1.50E+12
1	FZ	275	2.00E+12

# FBK Test Structures

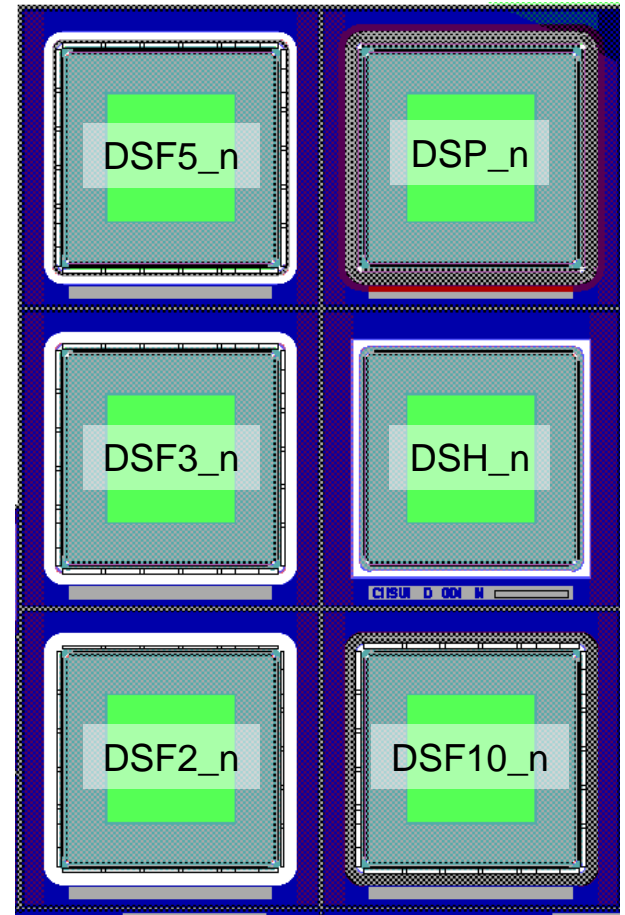
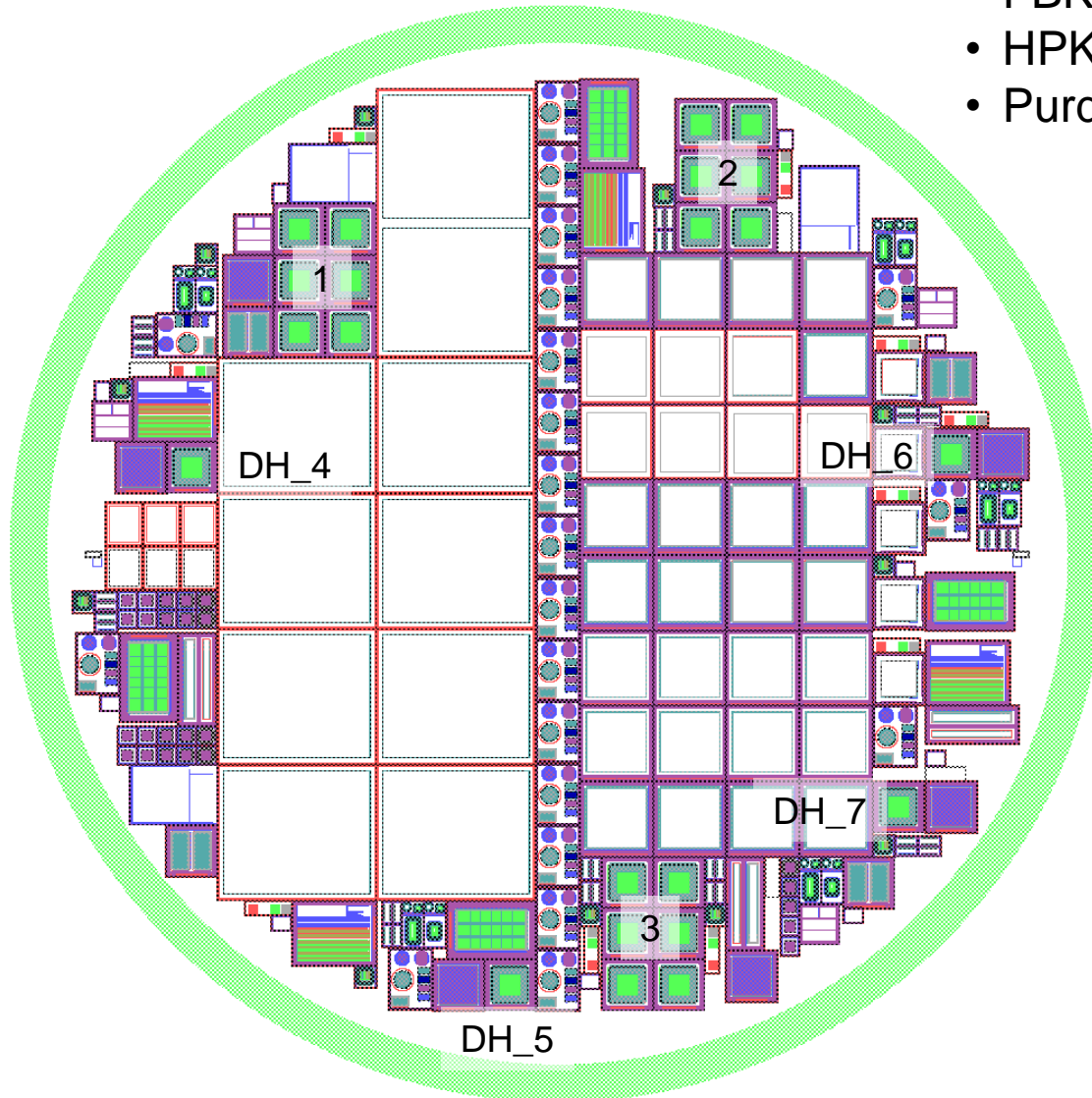
- 21x
- T16 rotated



Die size (cut-line center): 6090 $\mu$ m x 8486 $\mu$ m

# 5x5mm<sup>2</sup> square diodes

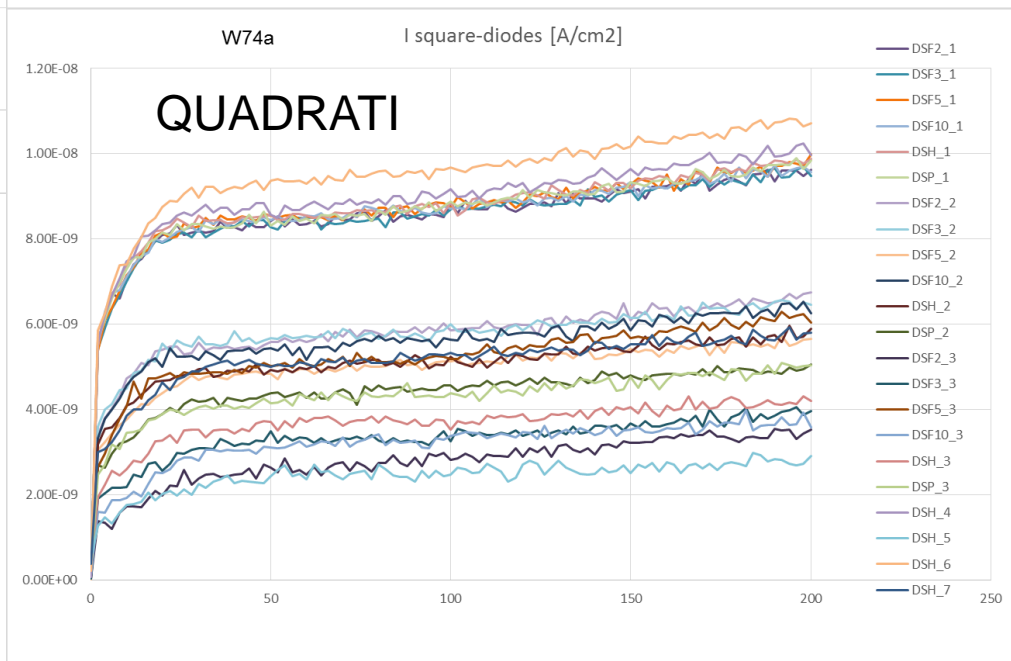
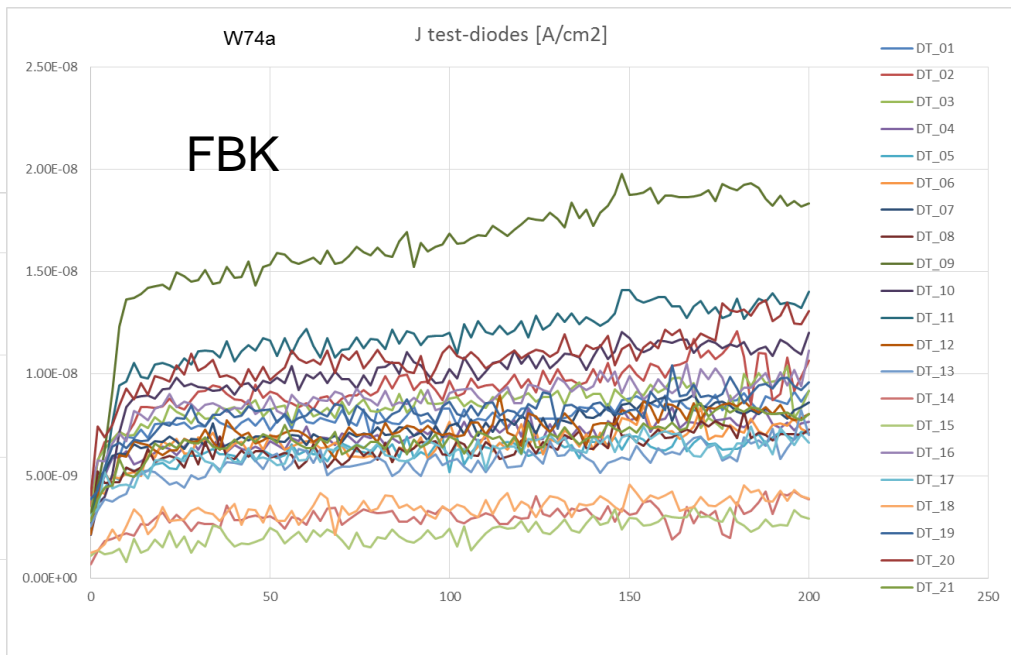
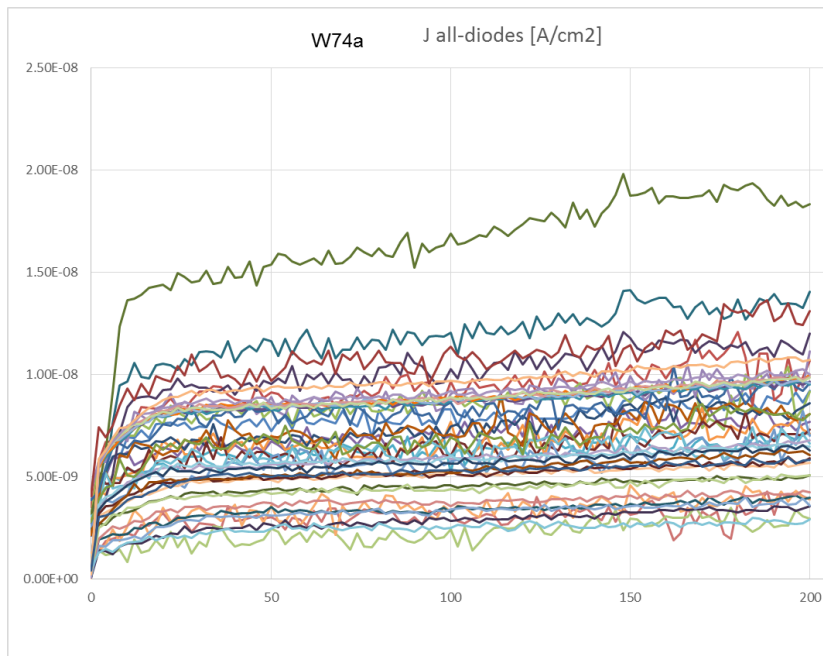
- FBK termination: 2, 3, 5, 10 GRs (3x)
- HPK (7x) [1-3 with p-stop; 4-7 w/o]
- Purdue (3x)



Die size (cut-line center): 7030 $\mu$ m x 7030 $\mu$ m



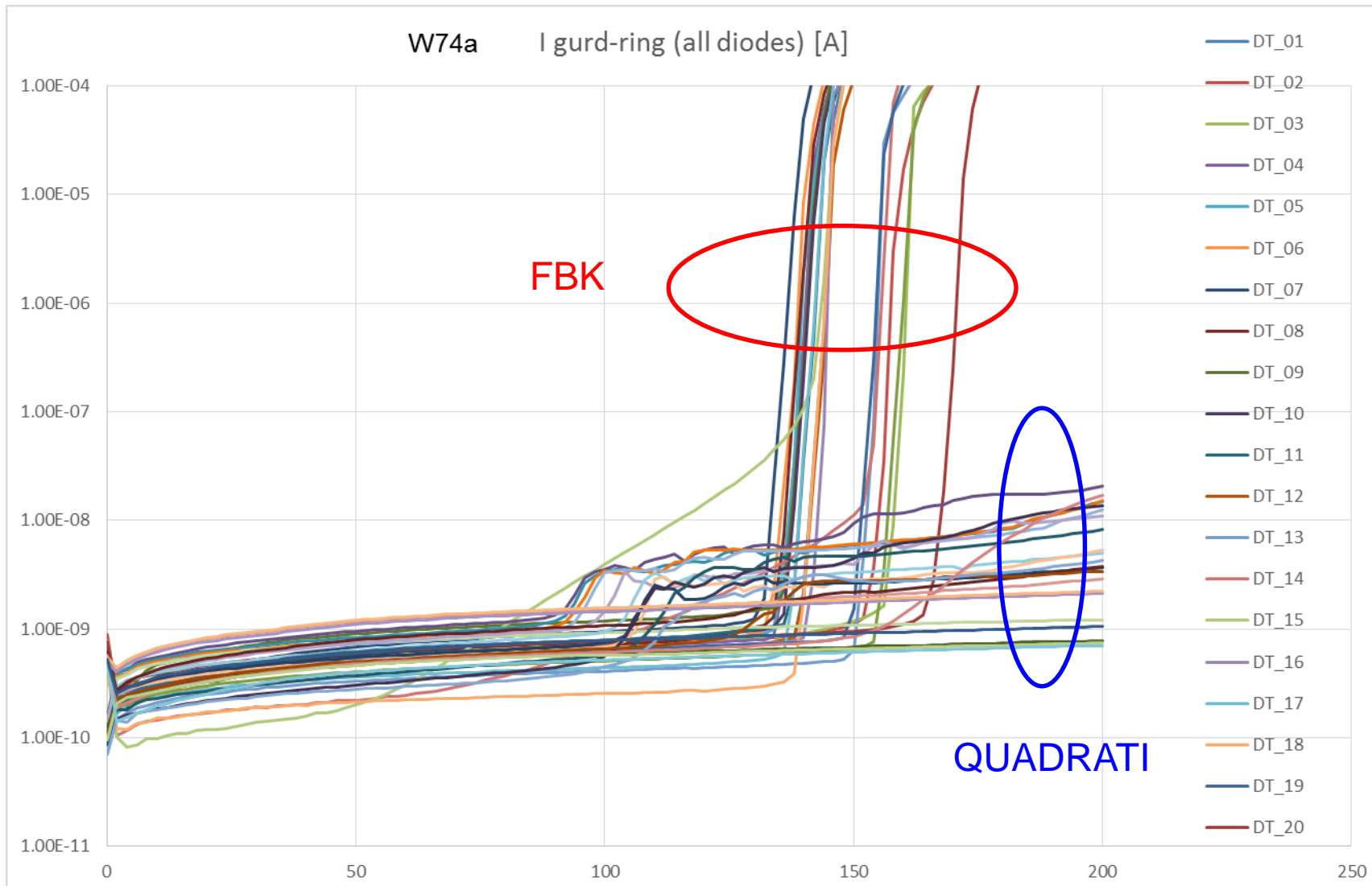
# IV diodi di test



densità di corrente a 40V

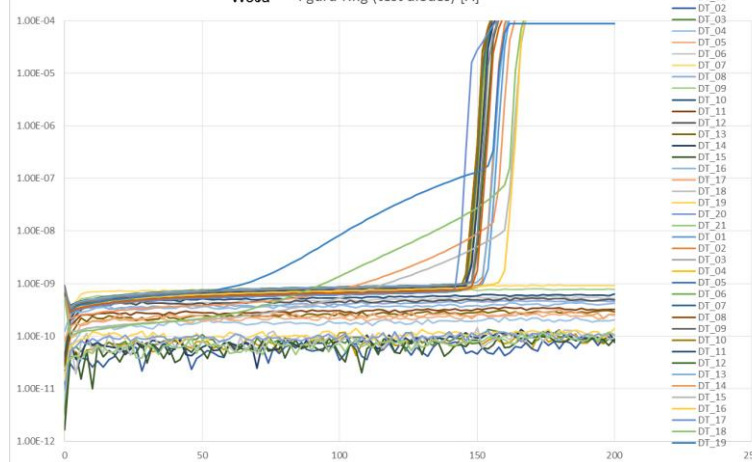
w2	6.35E-09
w30	3.32E-09
w33	3.58E-09
w49	3.95E-09
w63	7.72E-09
w69	6.37E-09
w74	7.13E-09
w75	1.29E-08
w80	6.10E-09
w81	7.20E-09

# IV diodi di test: corrente sul GR



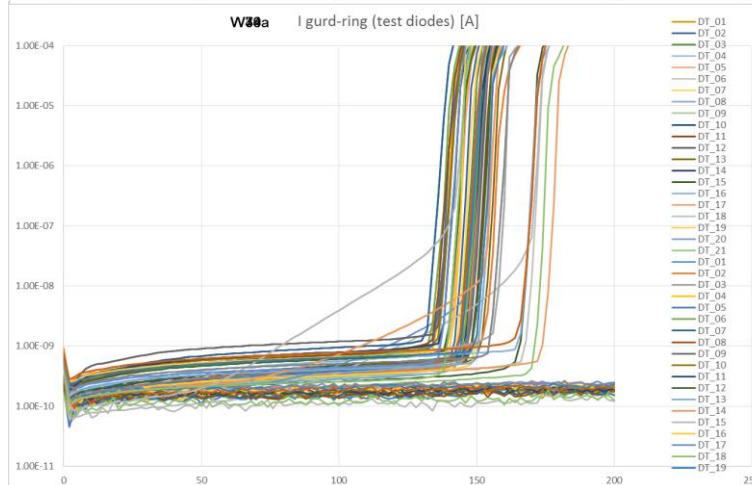
# Tensione di breakdown su diodi di test FBK

Dose p-spray 1.5



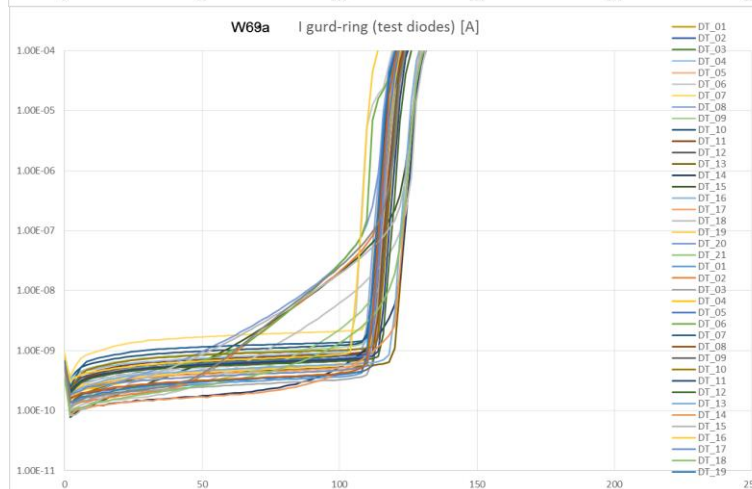
W80 e 81

Dose p-spray 2.0



W30, 33, 49, 74, 75

Dose p-spray 2.5

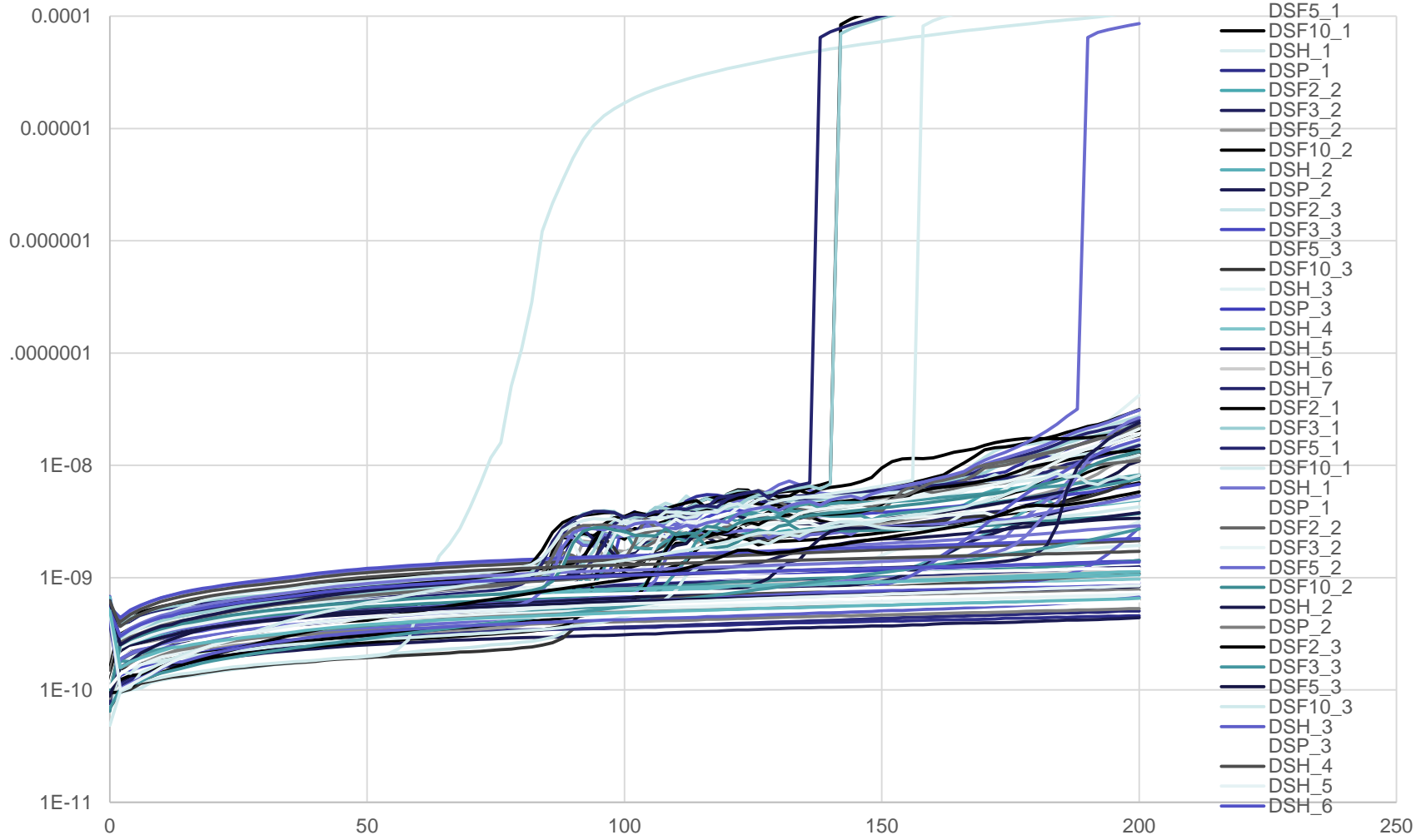


W63 e 69

# Tensione di breakdown su diodi di test QUADRATI

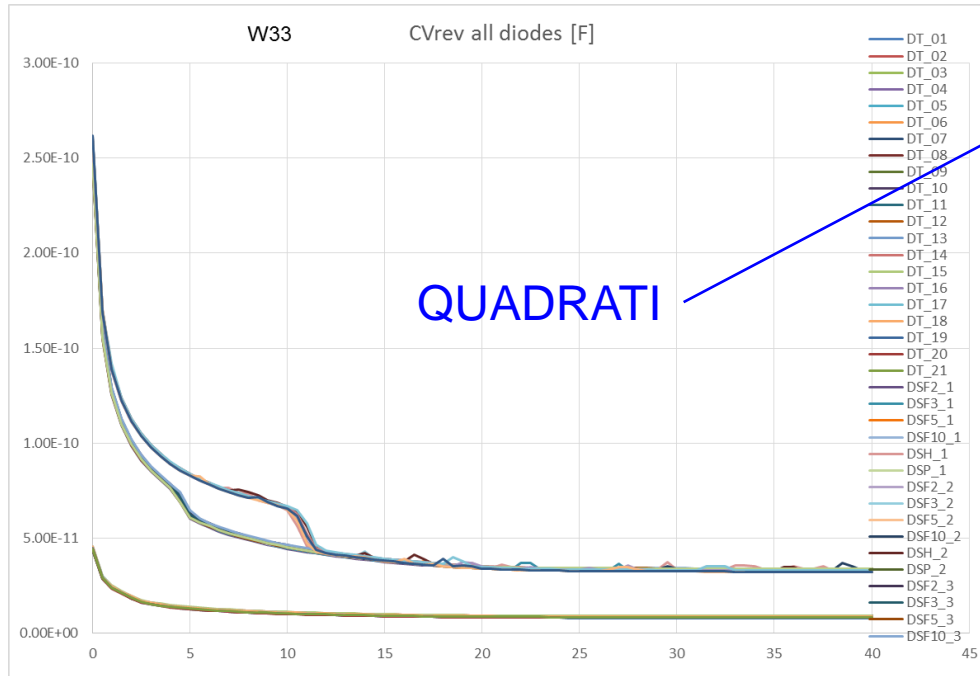
## Fette 30, 33, 74 e 75

W30a I gurd-ring (square diodes) [A]

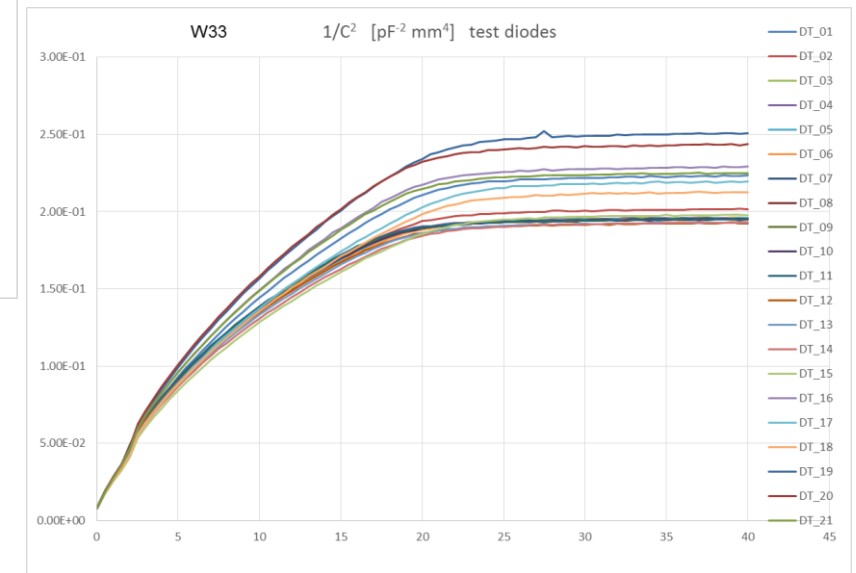
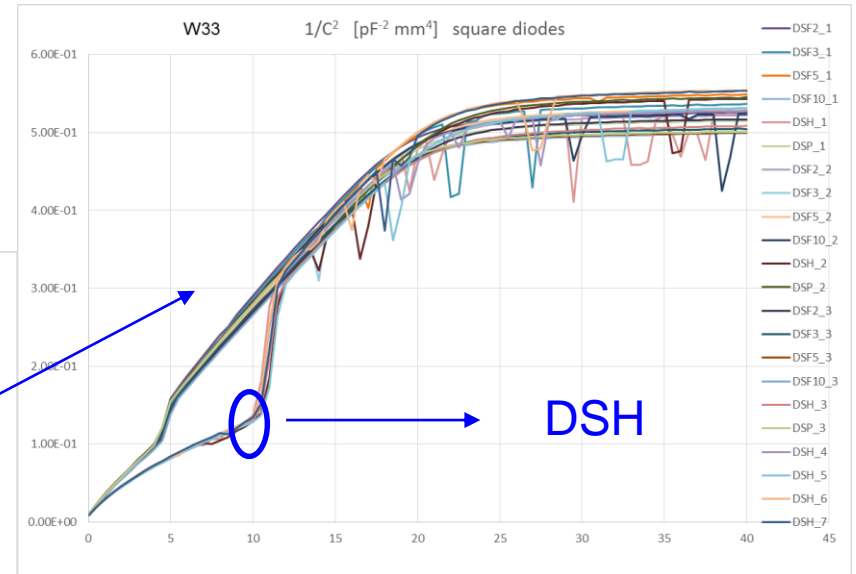




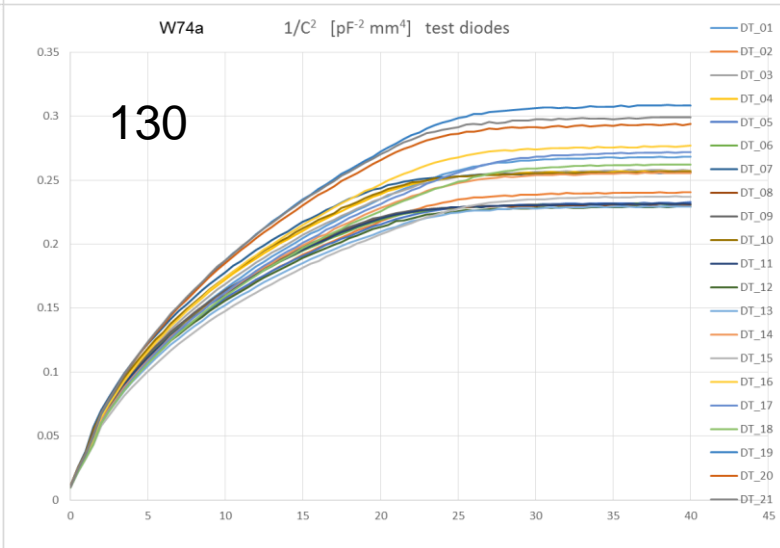
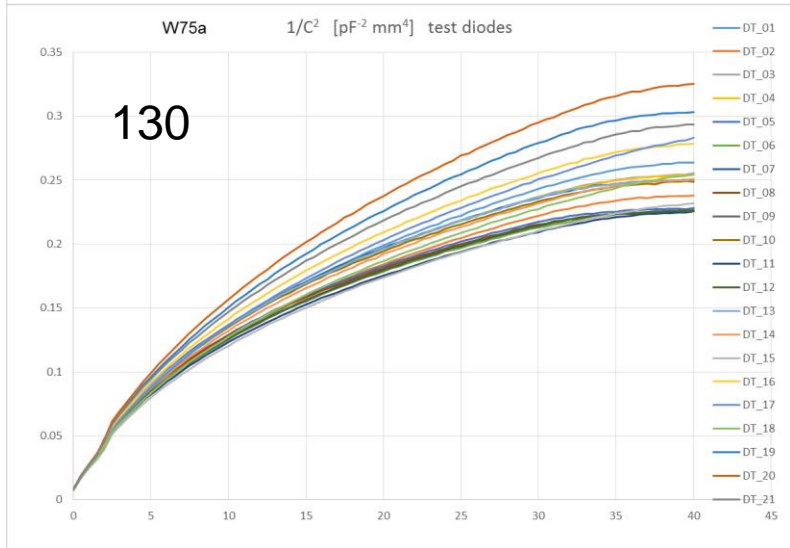
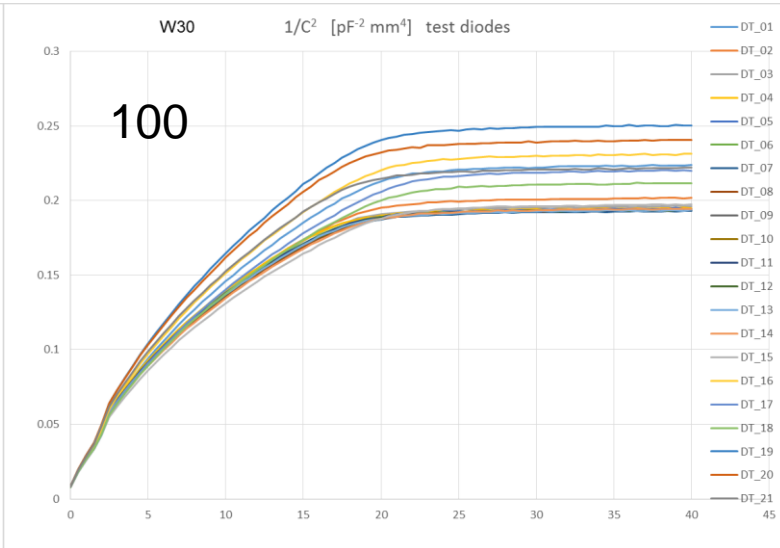
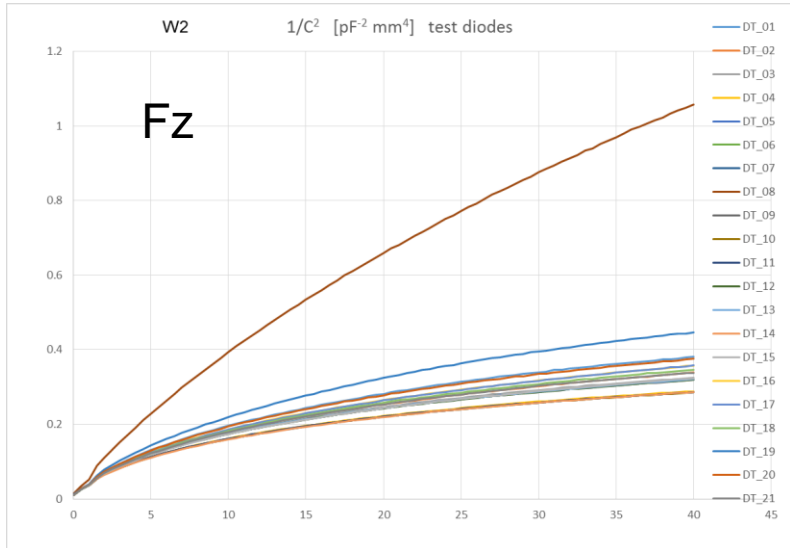
# CV su diodi di test



FBK

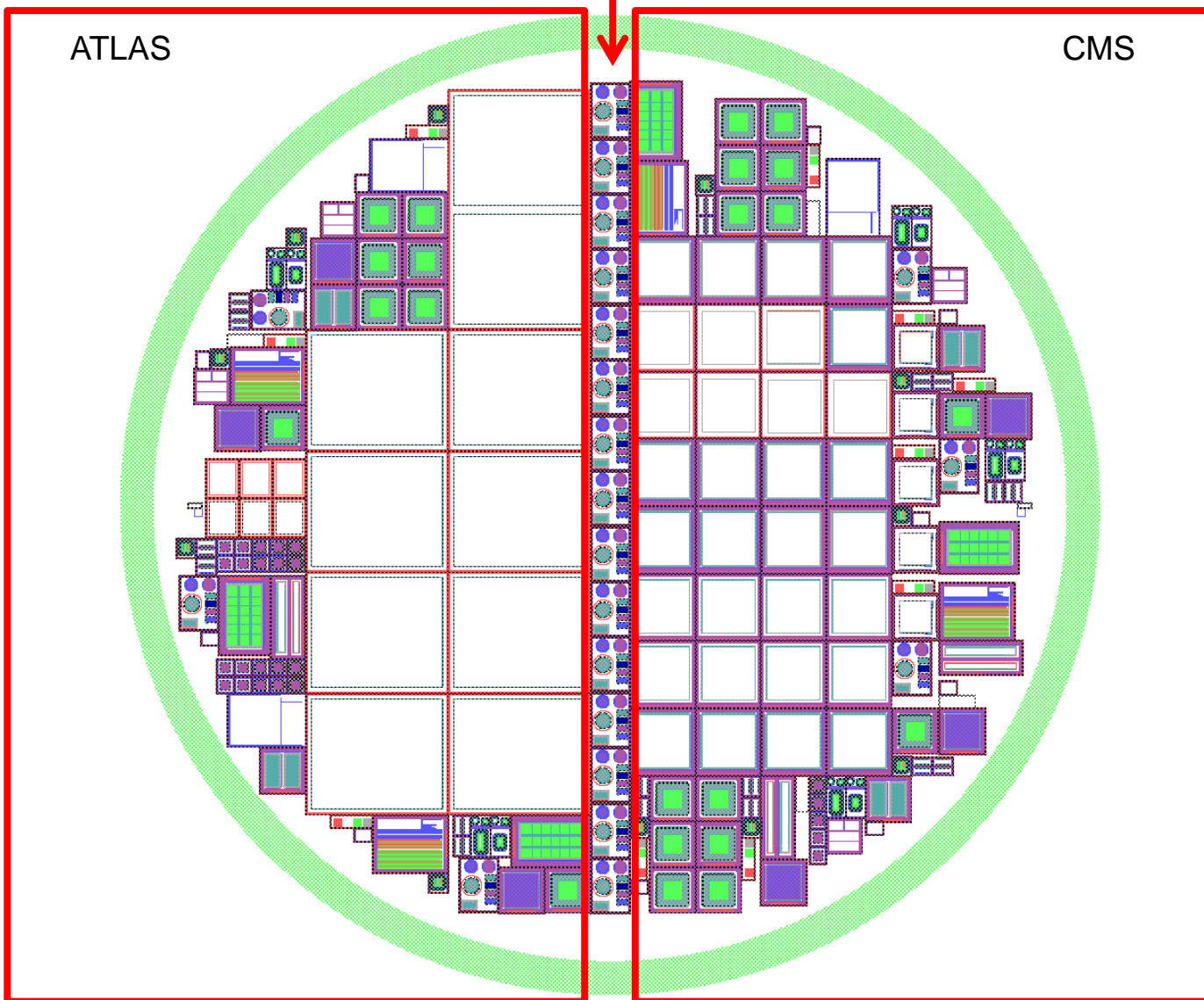


# CV diodi di test FBK

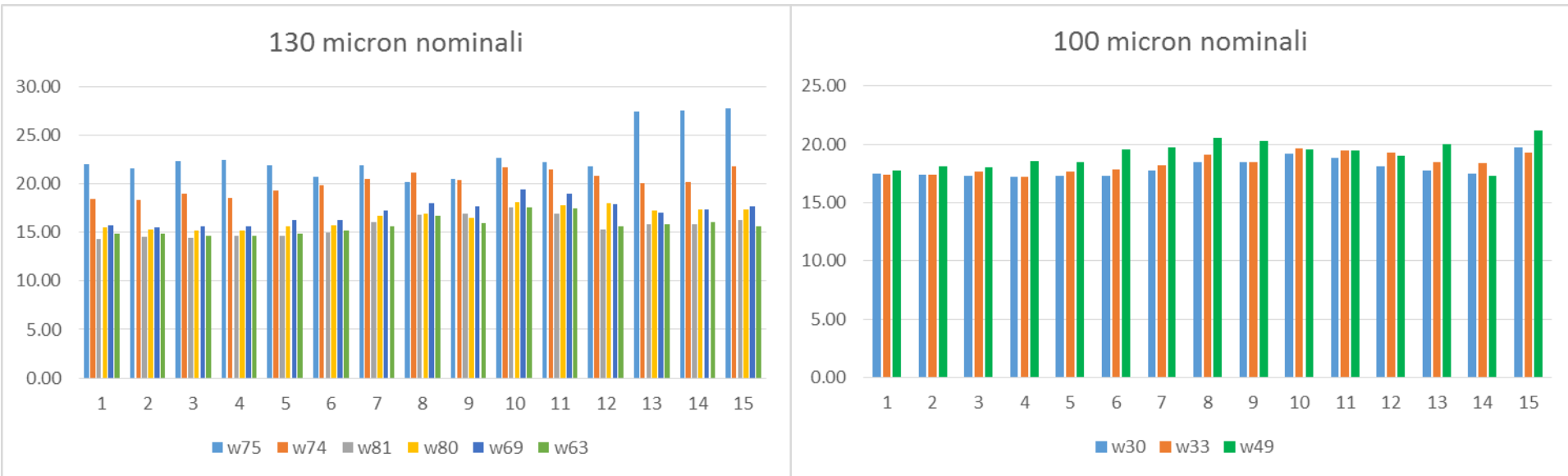


# Wafer Layout

Test structures

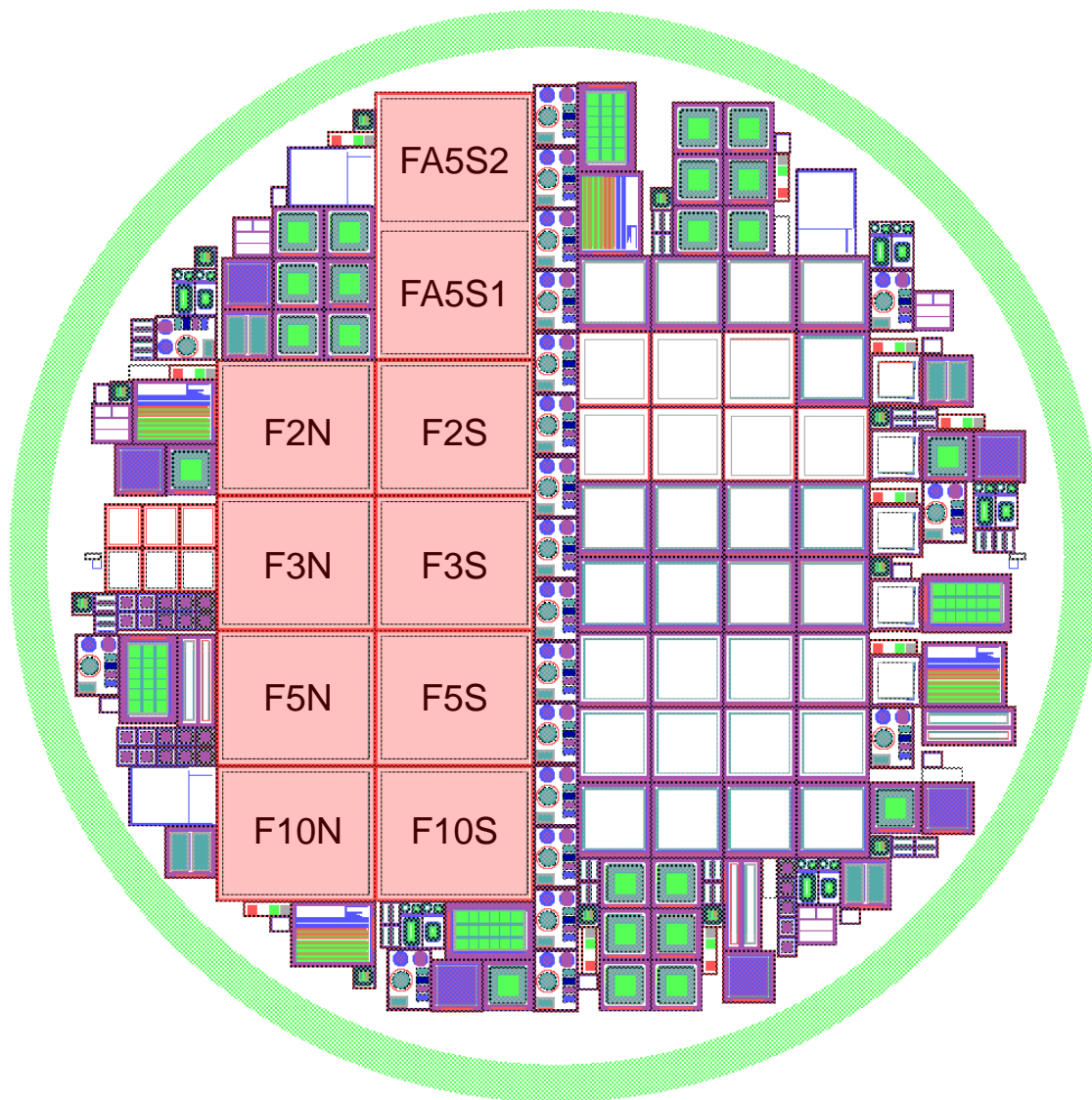


# Valore della tensione di svuotamento sul diametro della fetta



Da verificare !!!!!

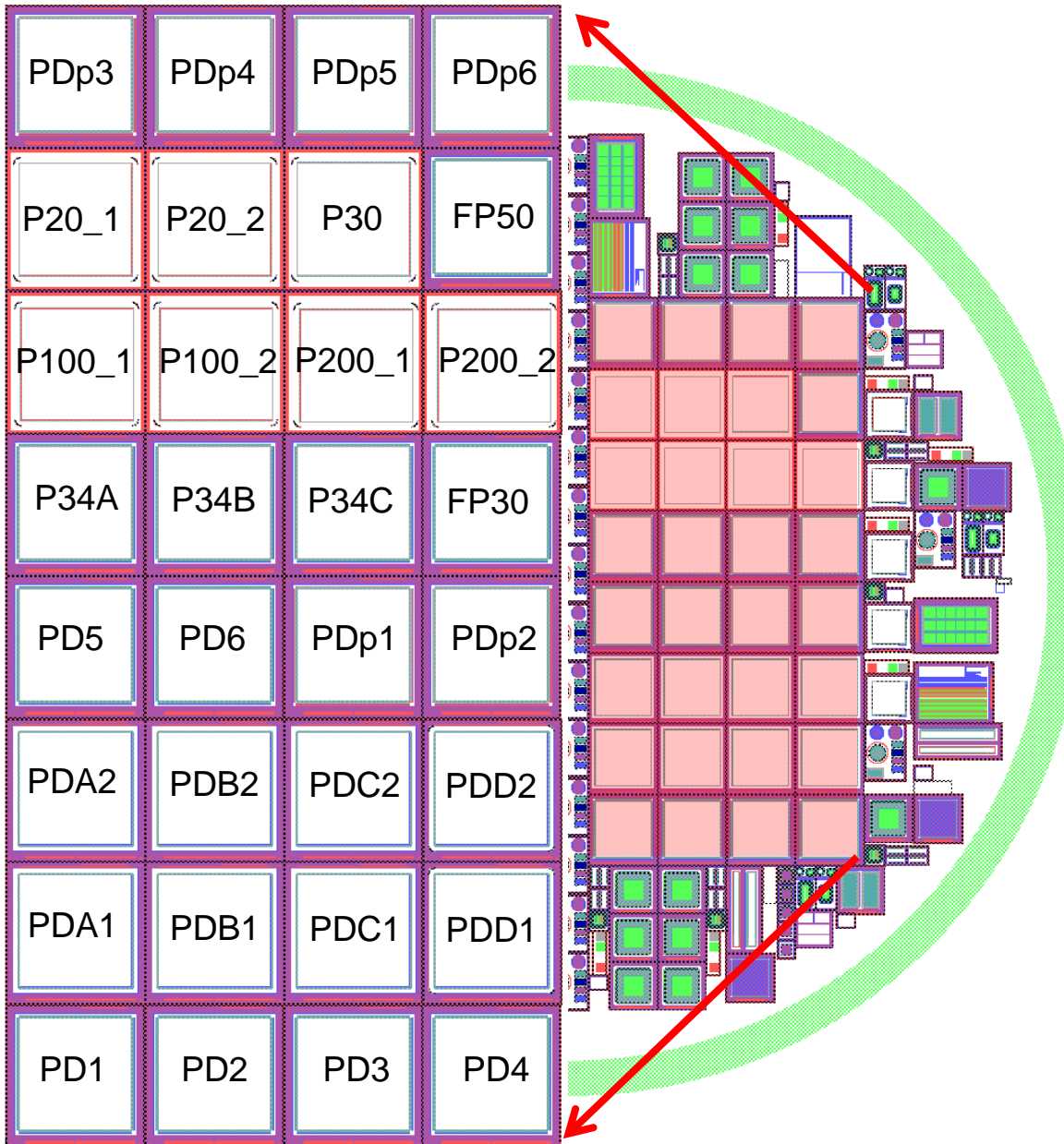
# ATLAS - FEI4



Sensor name	GRs	PT
F10N	10	New
F10S	10	Standard
F5N	5	New
F5S	5	Standard
F3N	3	New
F3S	3	Standard
F2N	2	New
F2S	2	Standard
FA5S1 FA5S2	5	Standard

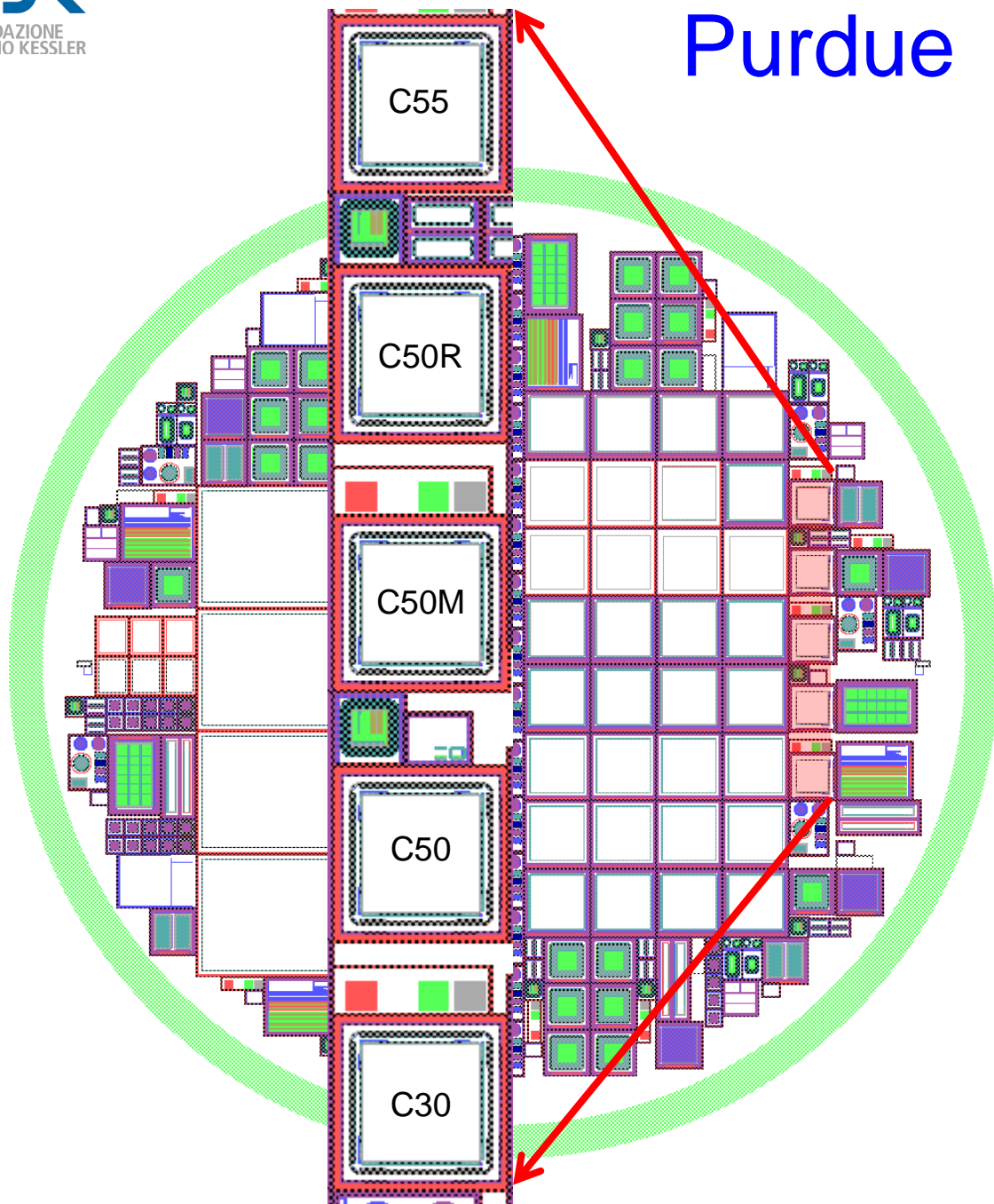


# CMS



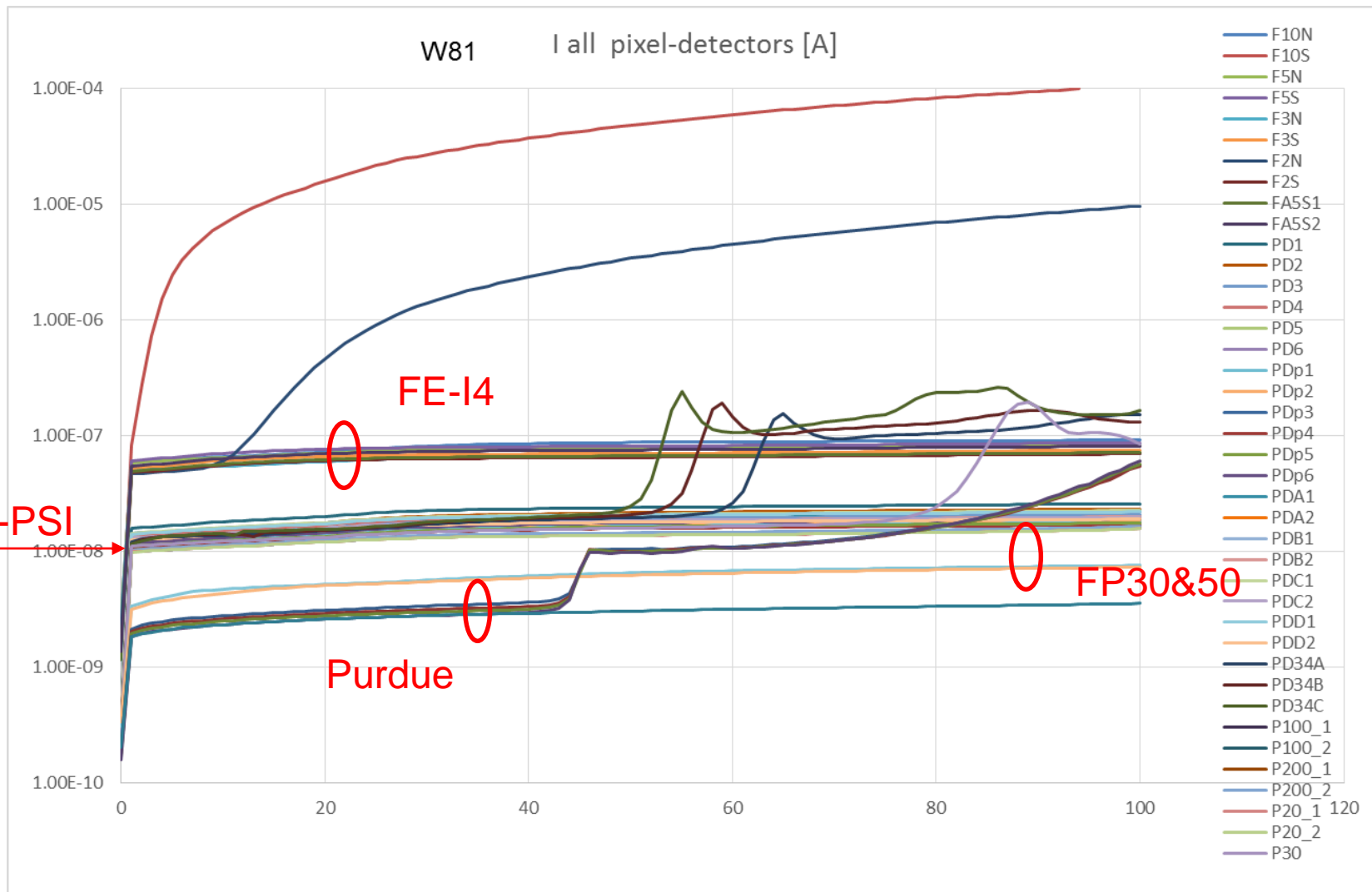
Sensor name	cell	Molt.
PDn	sc_psi46_gap_20_D	6
PDpn	sc_psi46_gap_20_D (plus p-stop in GRs)	6
PDA <sub>n</sub>	sc_psi46_gap_20_D_GR _ATLAS_A	2
PDB <sub>n</sub>	sc_psi46_gap_20_D_GR _ATLAS_B	2
PDC <sub>n</sub>	sc_psi46_gap_20_D_GR _ATLAS_C	2
PDD <sub>n</sub>	sc_psi46_gap_20_D_GR _ATLAS_D	2
PD34A	sc_psi46_gap_34_A_HPKGR	1
PD34B	sc_psi46_gap_34_B_HPKGR	1
PD34C	sc_psi46_gap_34_C_HPKGR	1
P100 <sub>n</sub>	sc_psi46_gap_20_100	2
P200 <sub>n</sub>	sc_psi46_gap_20_200	2
P20 <sub>n</sub>	sc_psi46_gap_20	2
P30	sc_psi46_gap_30	1
FP30	FPIX_30_HPKGR (no-grid)	1
FP50	FPIX_50_HPKGR (no-grid)	1

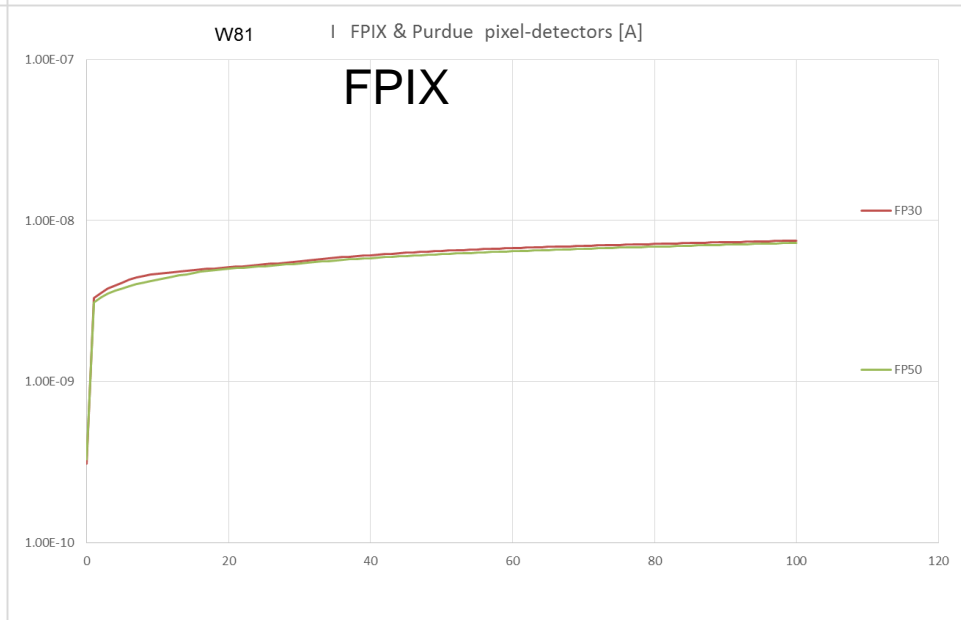
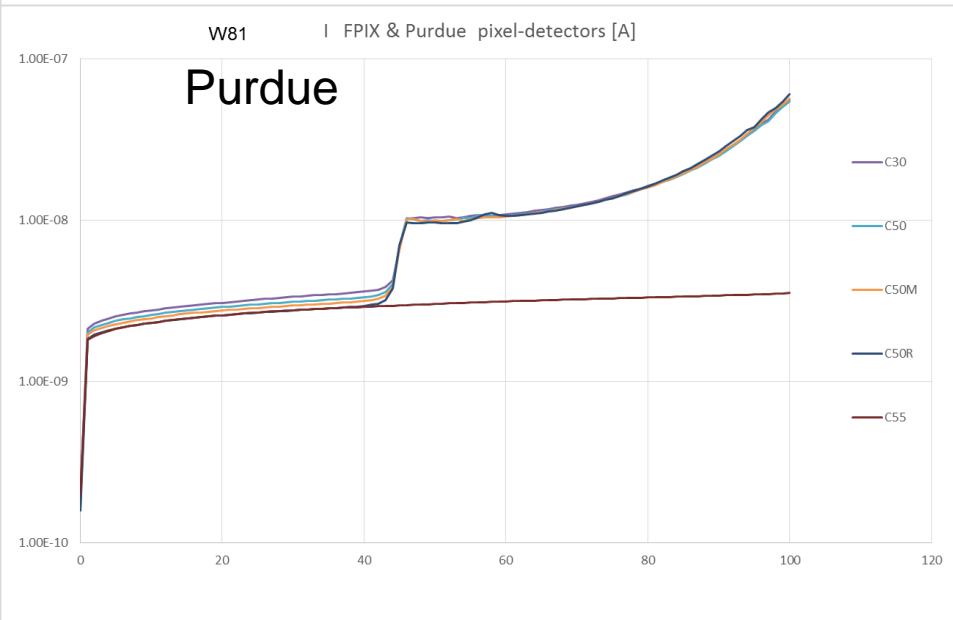
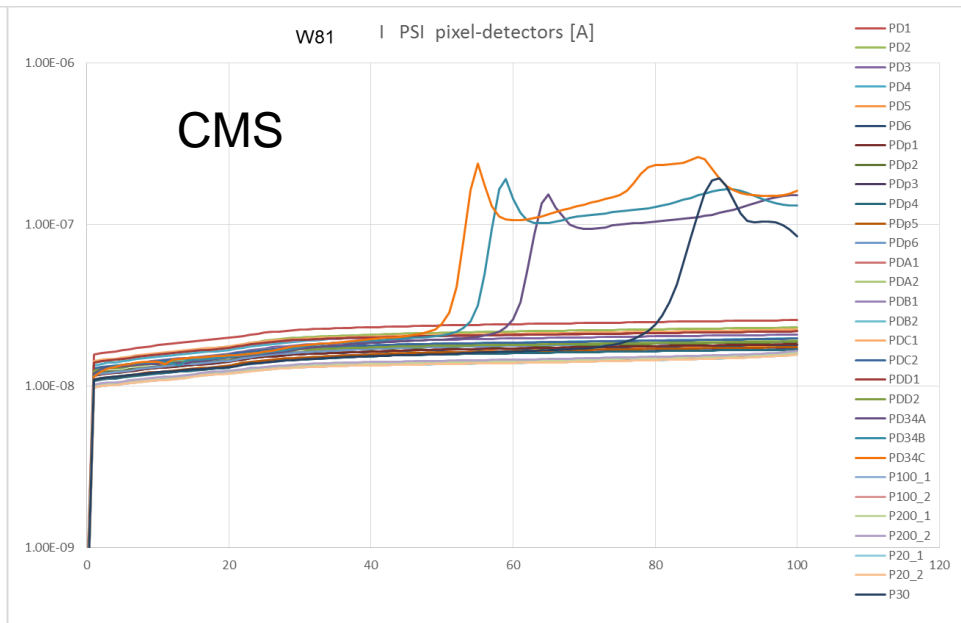
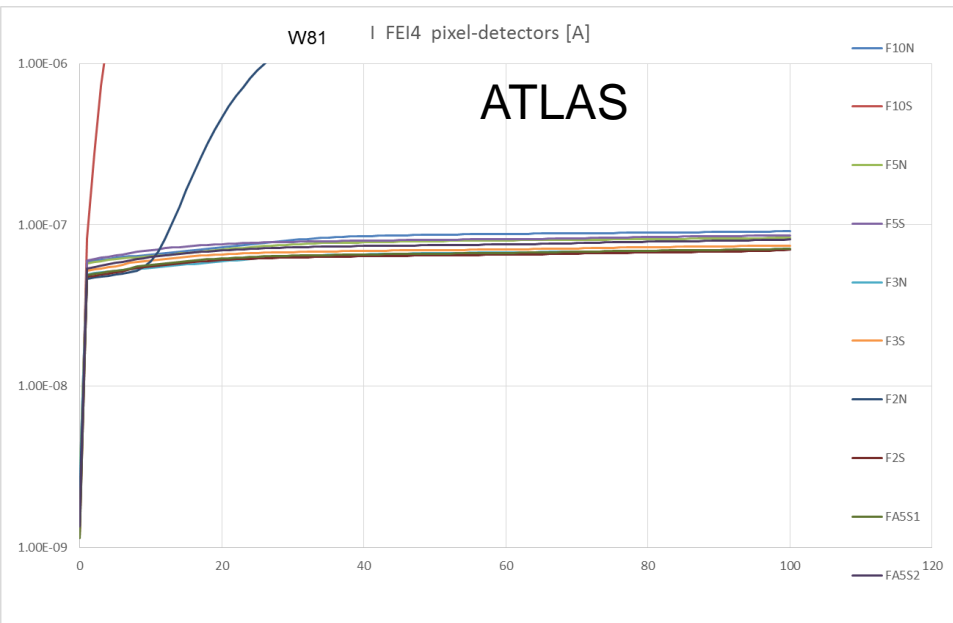
# Purdue

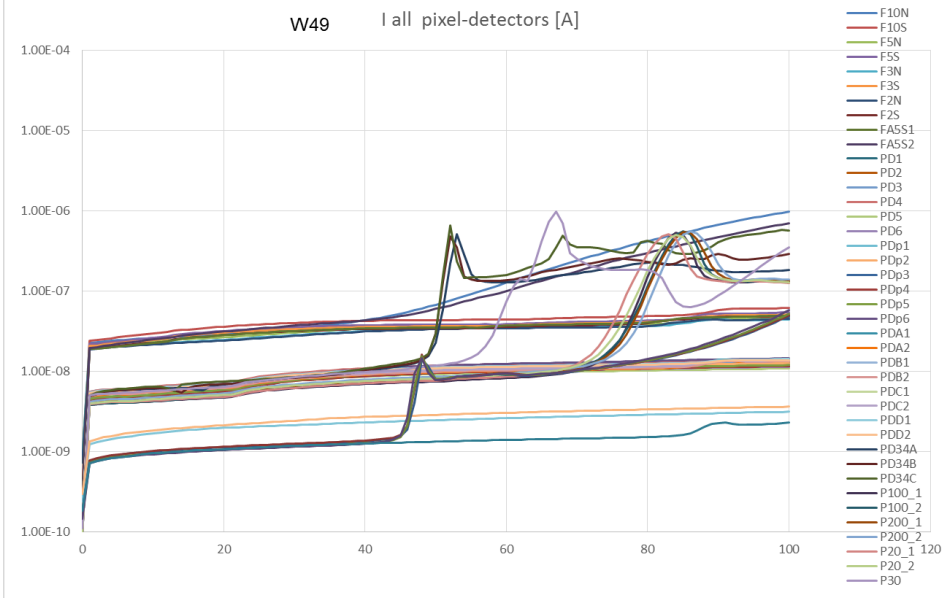
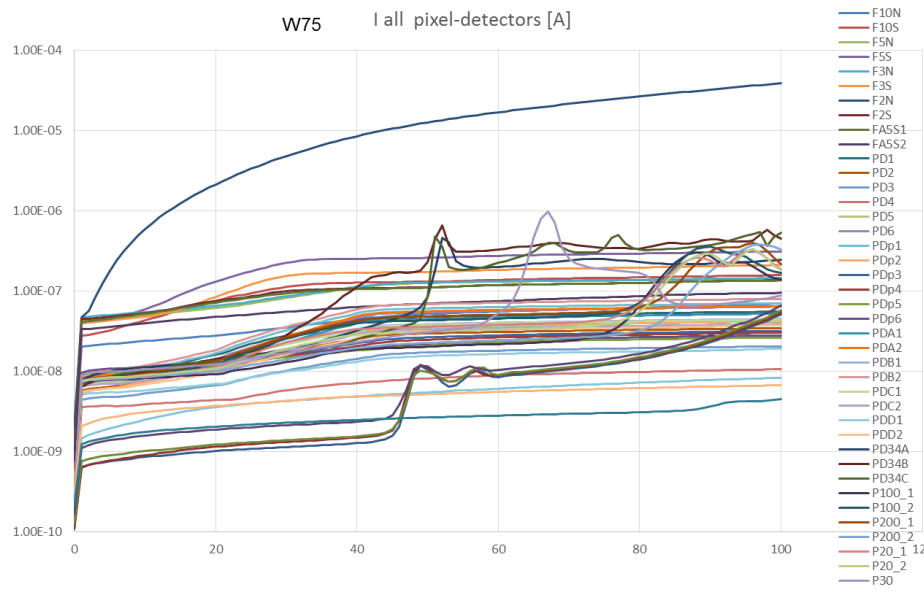
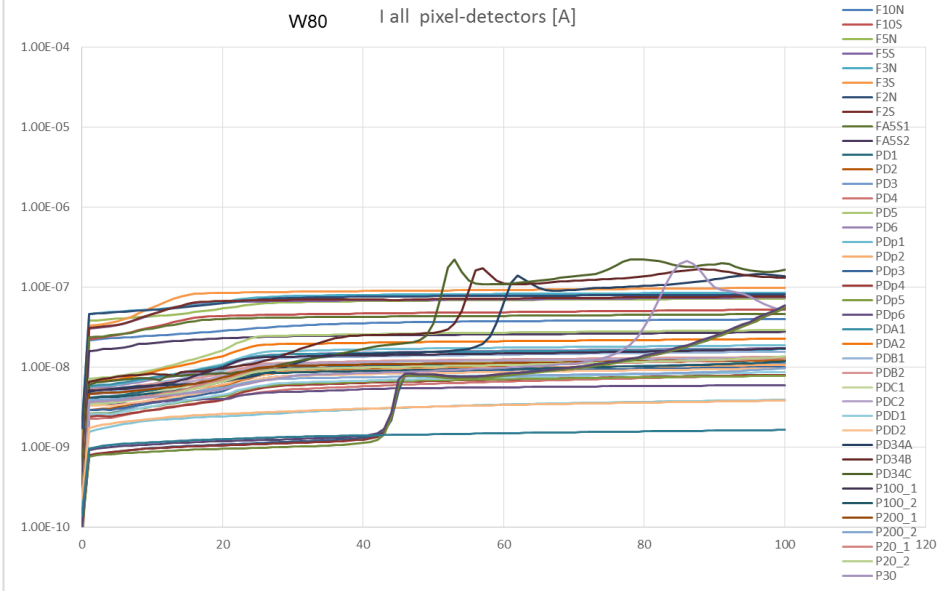
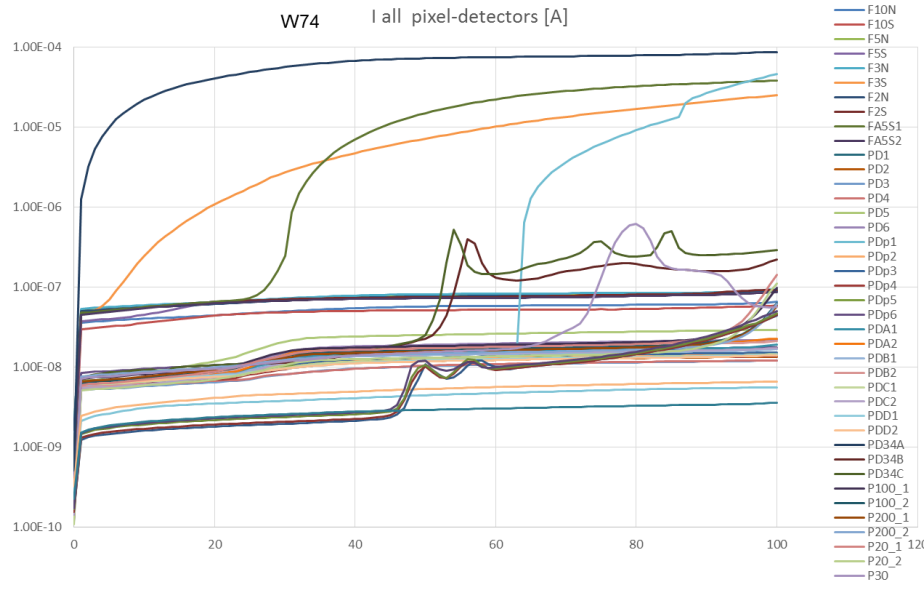


Sensor name	cell
C30	CHIP_100x30_ARRAY
C50	CHIP_100x50_ARRAY
C50M	CHIP_100x50_ARRAY_MAX
C50R	CHIP_100x50_ARRAY_REV
C55	CHIP_55x55_ARRAY

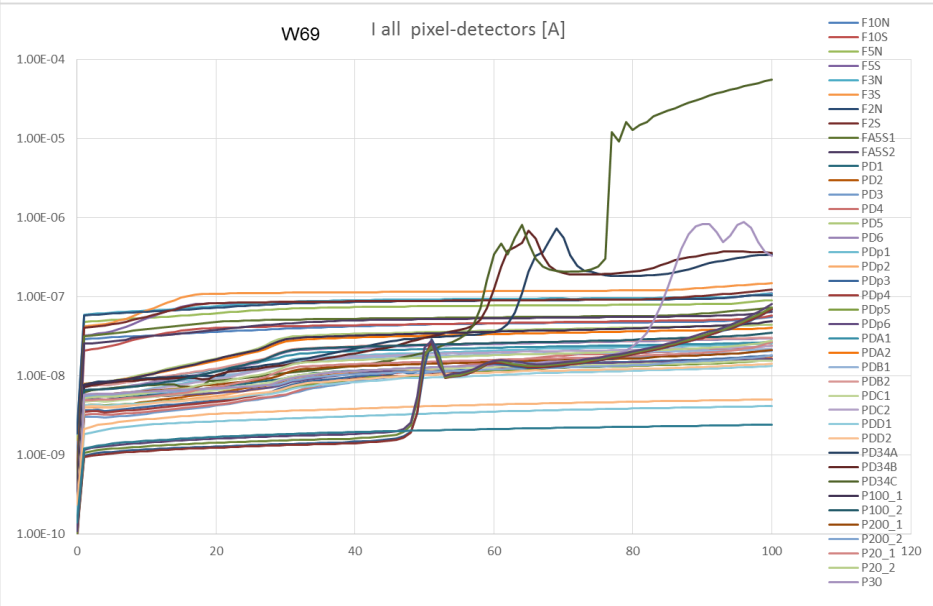
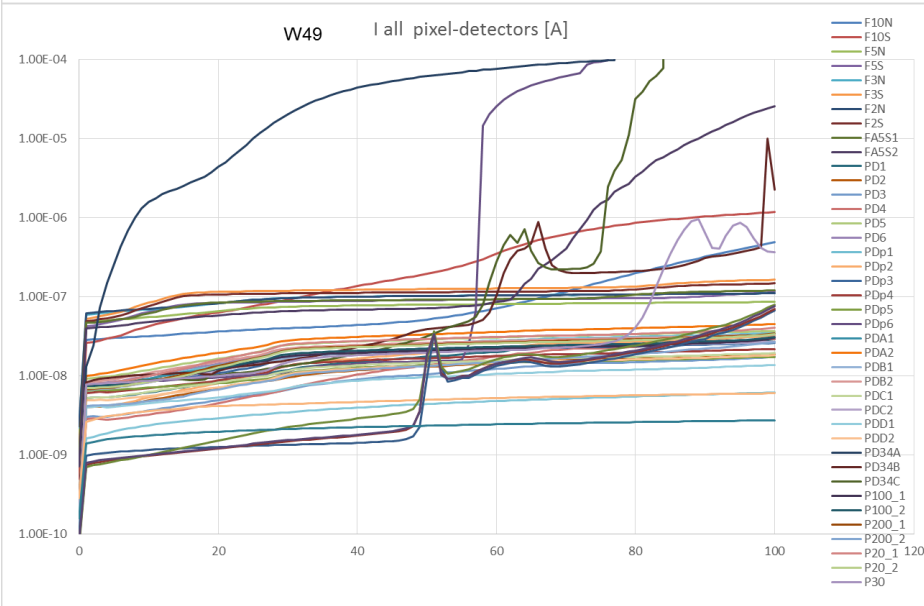
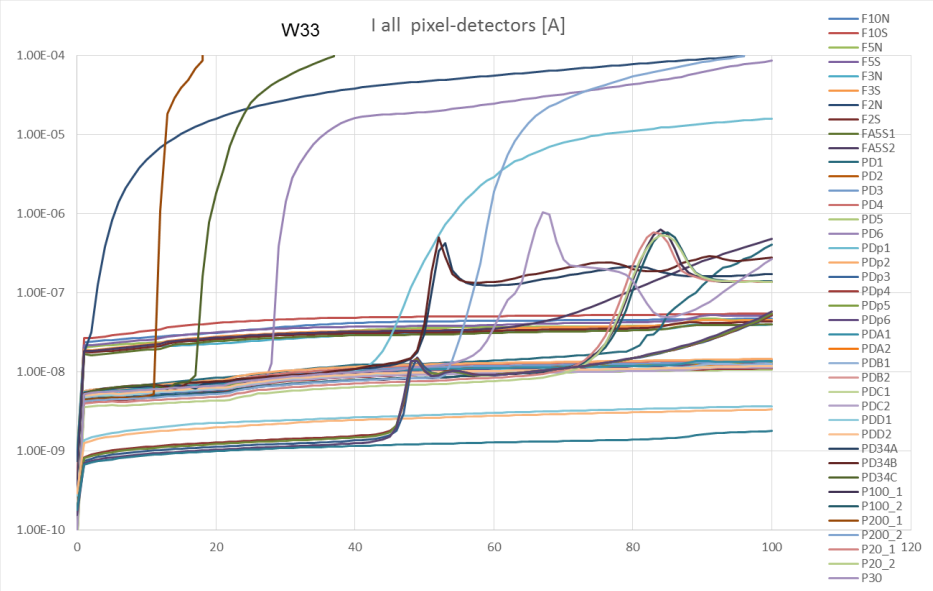
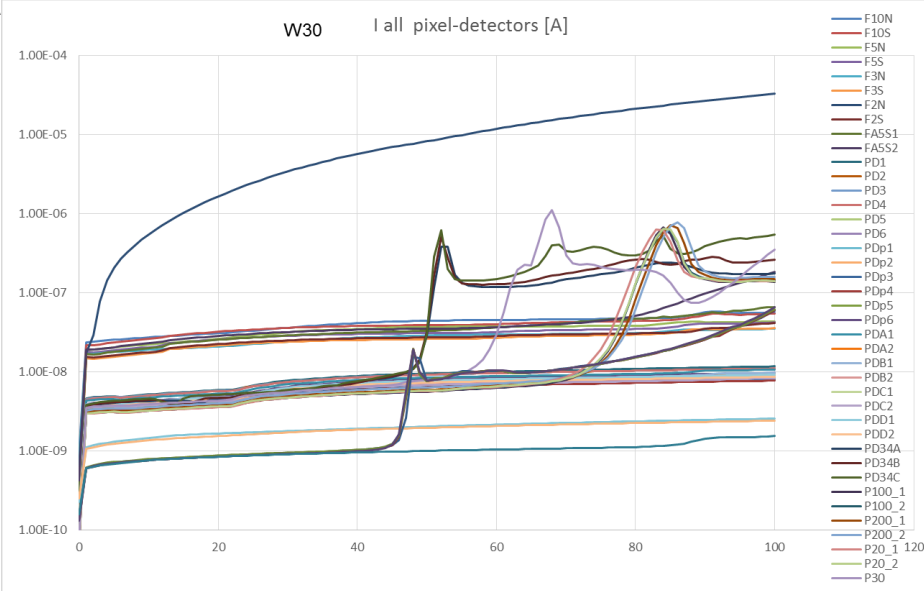
# IV pixel w81





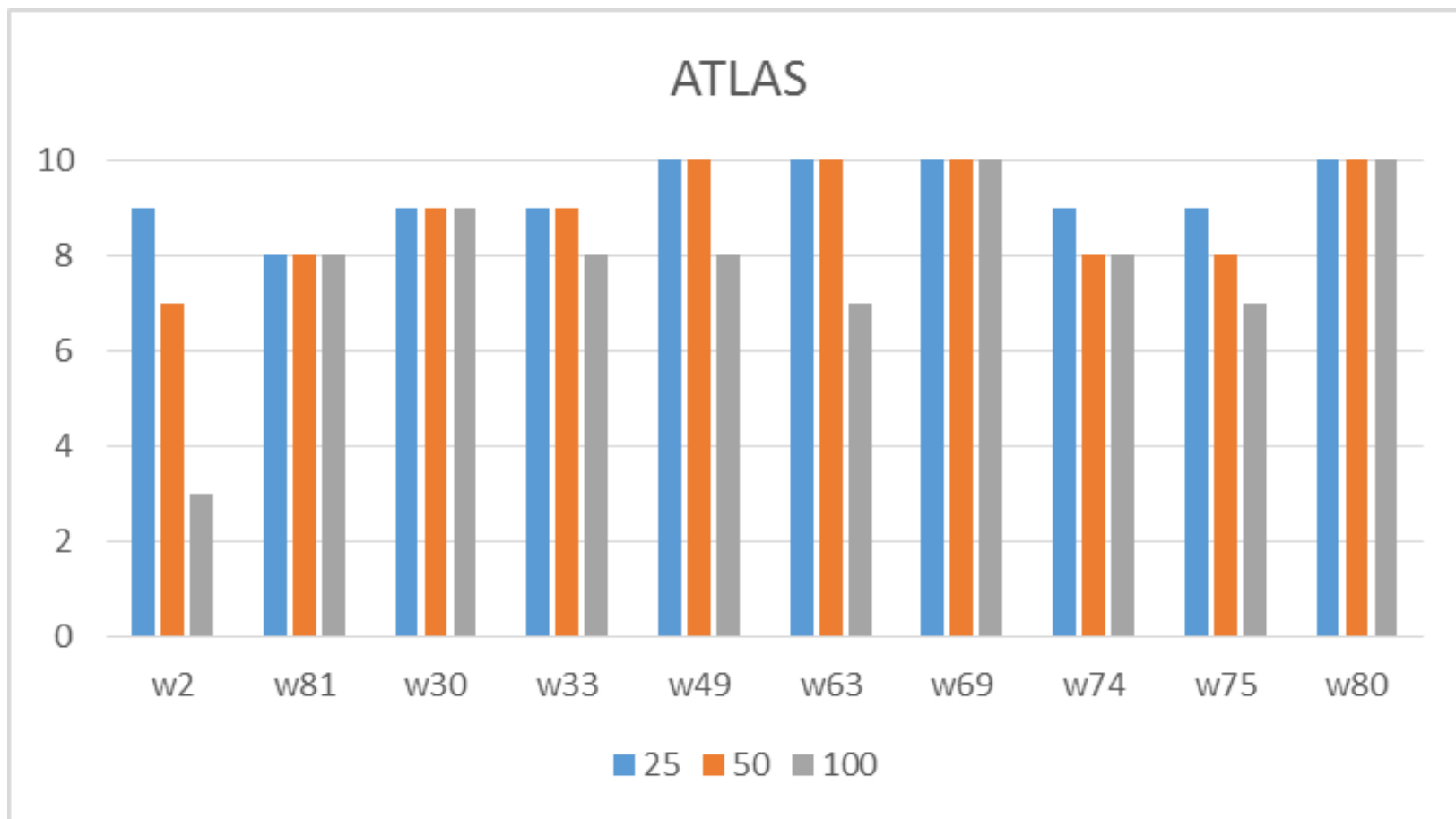






Limite corrente  
ATLAS 2.0E-7

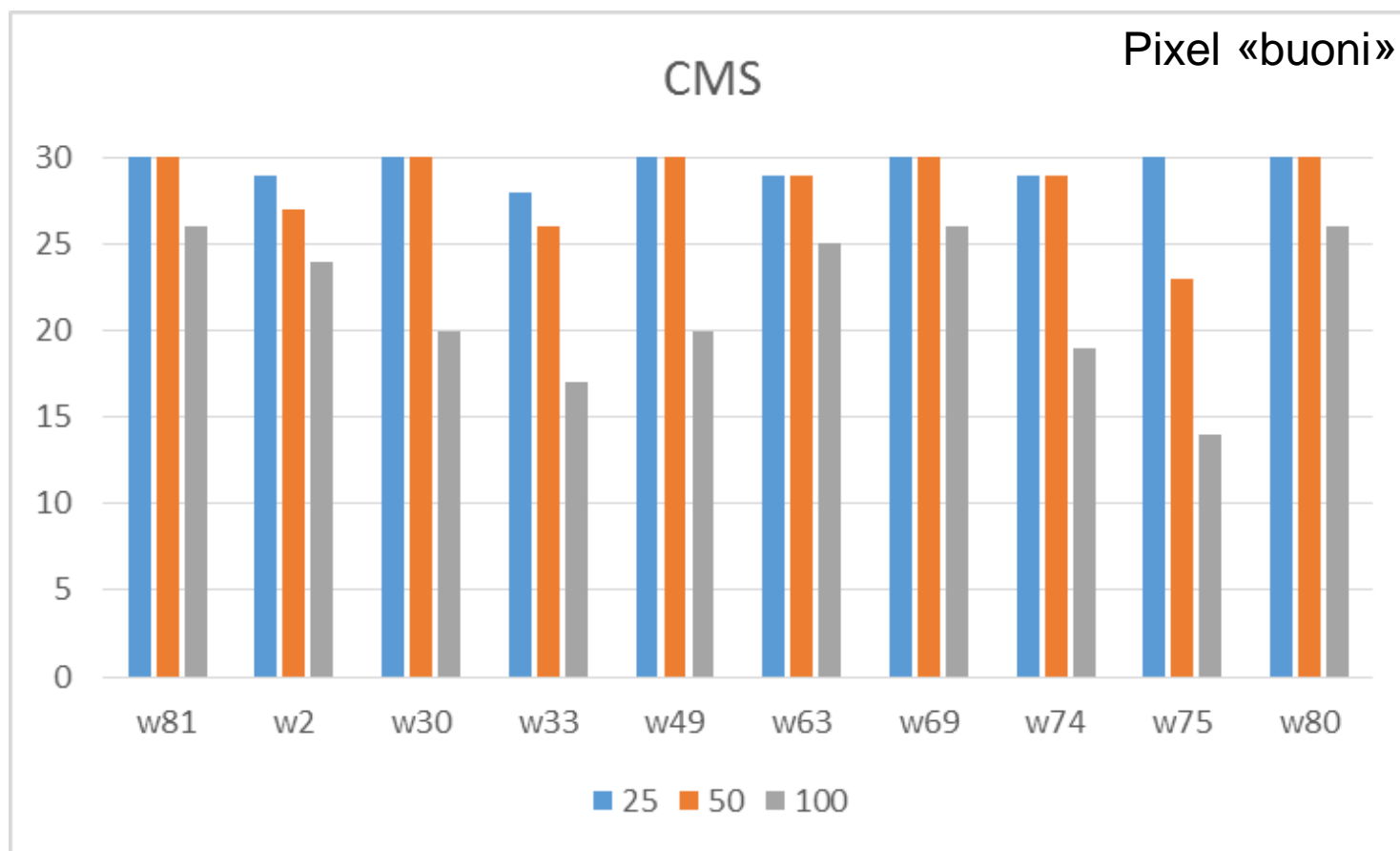
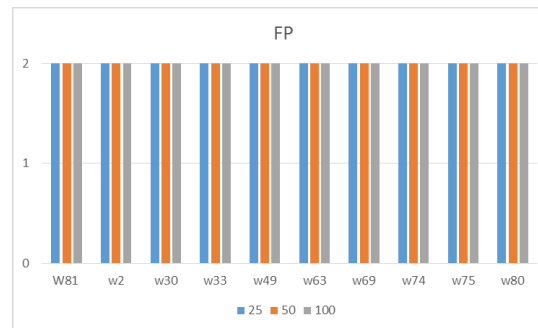
Pixel «buoni»



Limite corrente

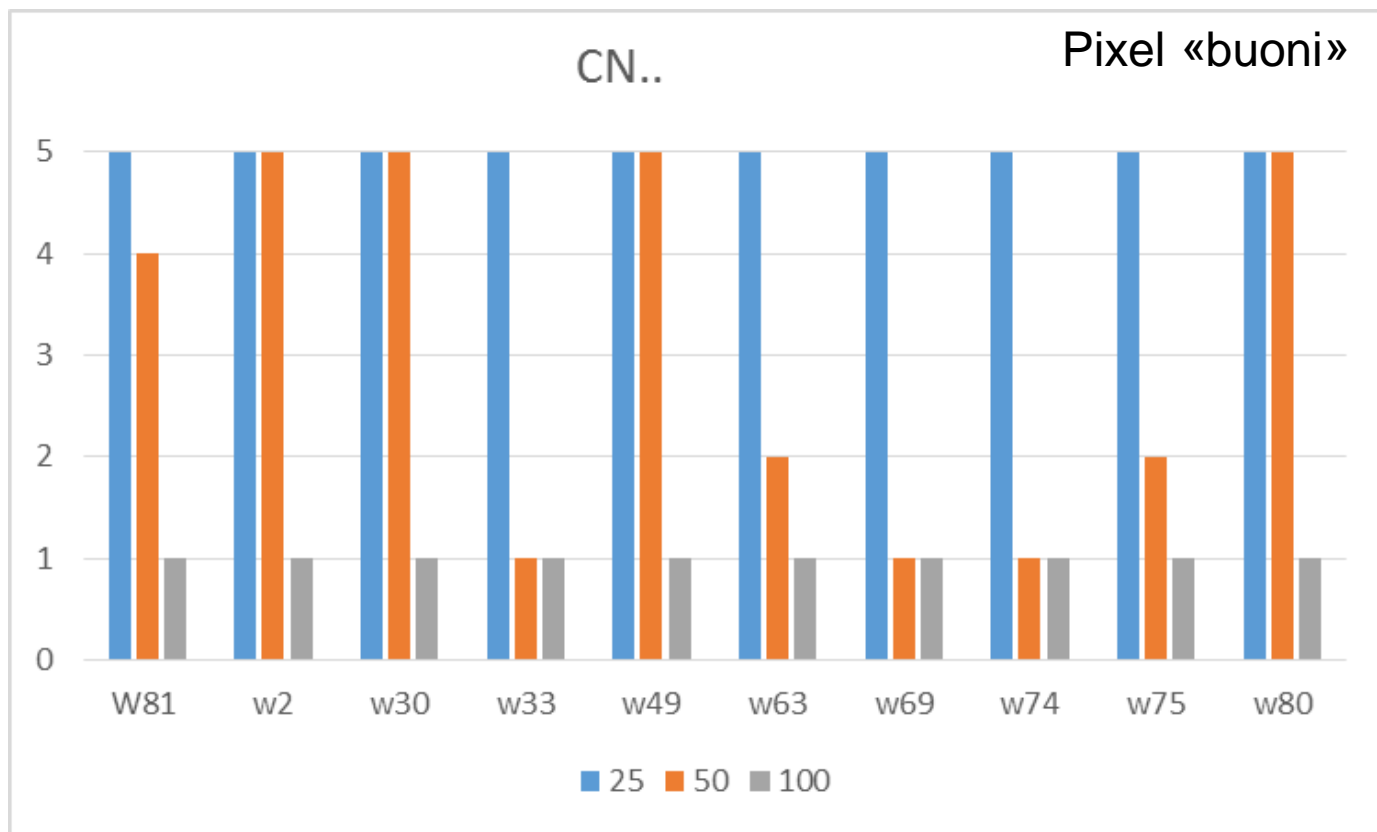
CMS 5.0E-8

FP 1.0E-8



Limite corrente

C.. 1.0E-8



## Serve una definizione di rivelatore «in spec»

Limite corrente  
ATLAS 2.0E-7

Limite corrente  
CMS 5.0E-8

			ATLAS	CMS
w30	100	2.0E+12	9	20
w33	100	2.0E+12	8	17
w49	100	2.0E+12	8	20
w63	130	2.5E+12	7	25
w69	130	2.5E+12	10	26
w74	130	2.0E+12	8	19
w75	130	2.0E+12	7	14
w81	130	1.5E+12	8	26
w80	130	1.5E+12	10	26