

1st Report on the analysis status of the 3D test beam experiment at Diamond in May 2009

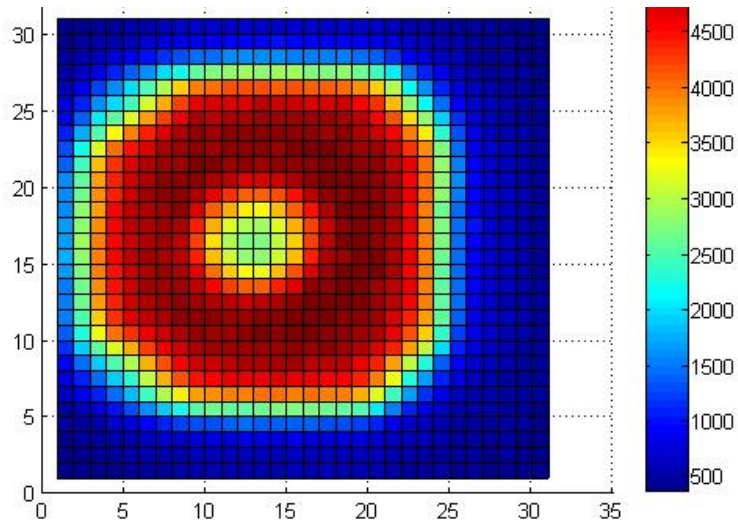
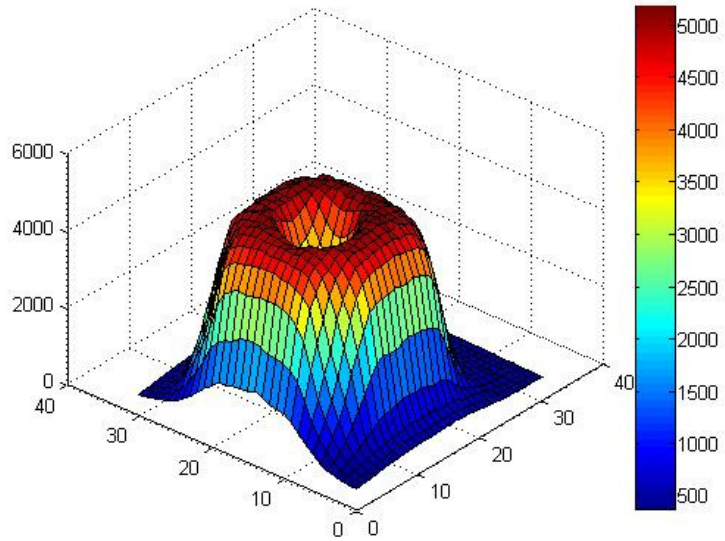
03/06/09

E.N. Gimenez

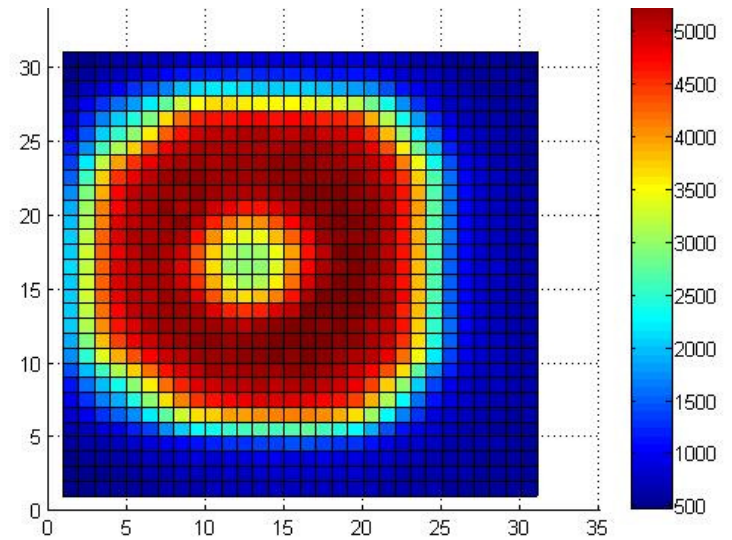
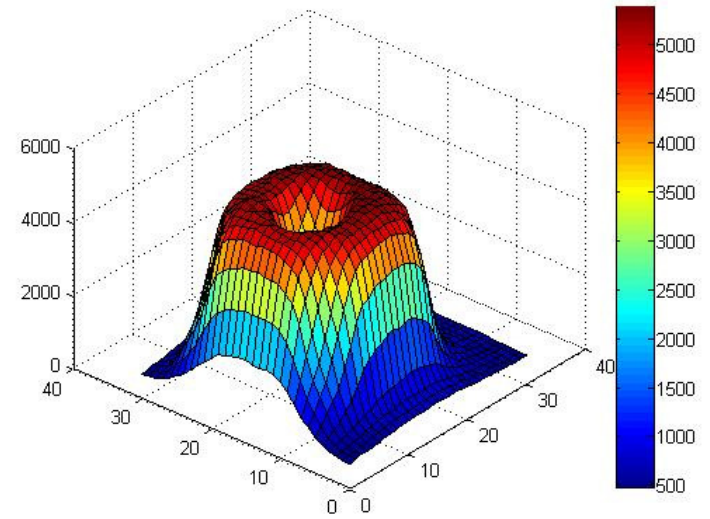
The comments related to each slide can be seen in the space that Powerpoint has available down to each slide for notes

J03-W0026 MXR3D n-bulk

THL	345 (50%)
Voltage (V)	5

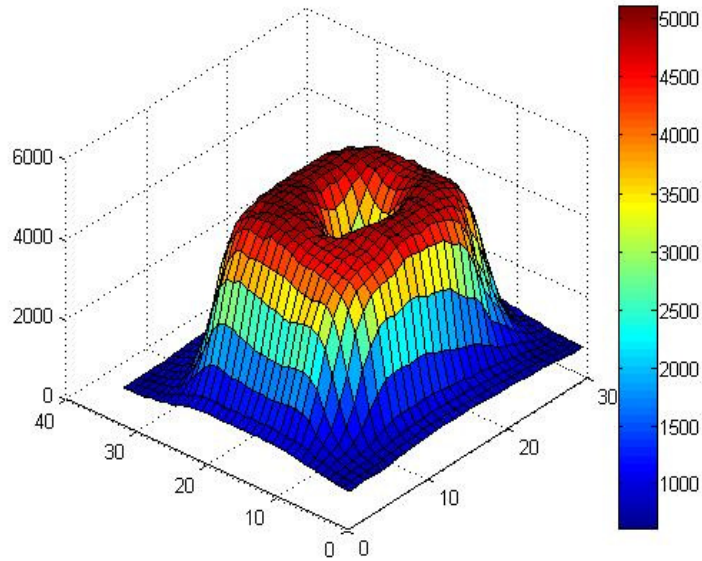


THL	345 (50%)
Voltage (V)	20

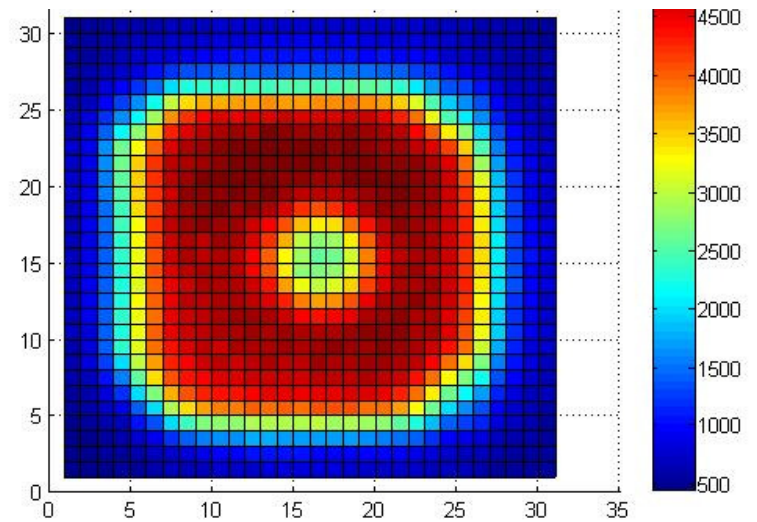
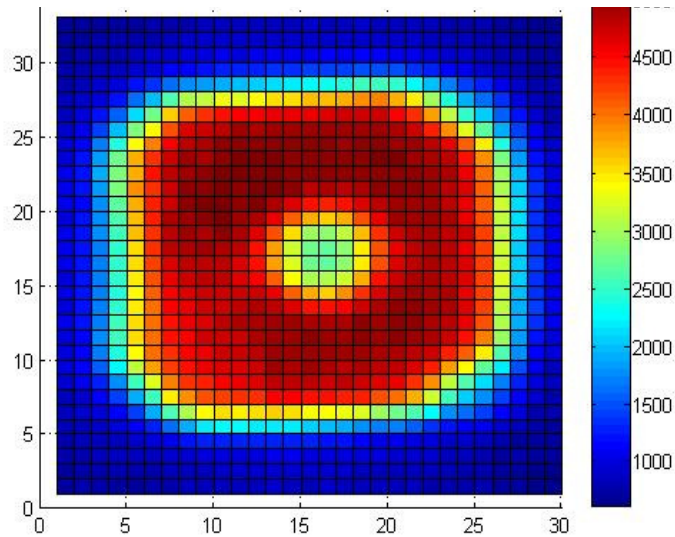
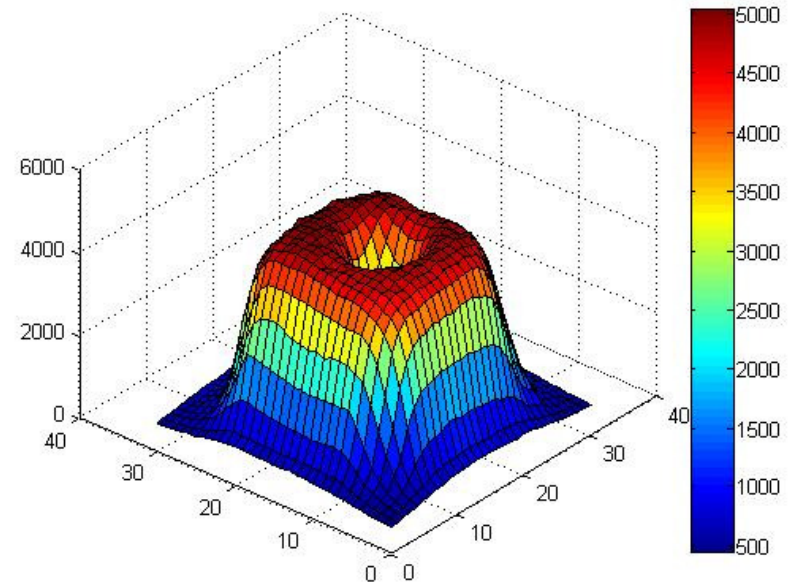


F09-W0015 TPX3D p-bulk

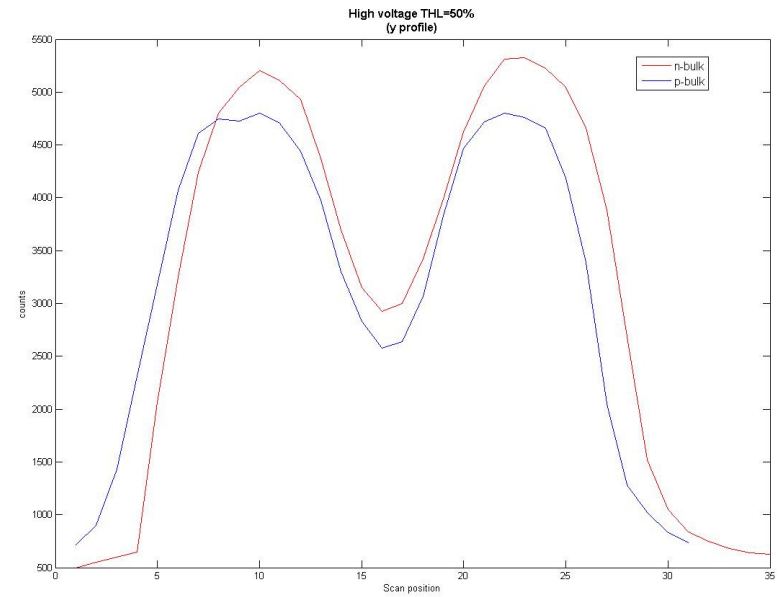
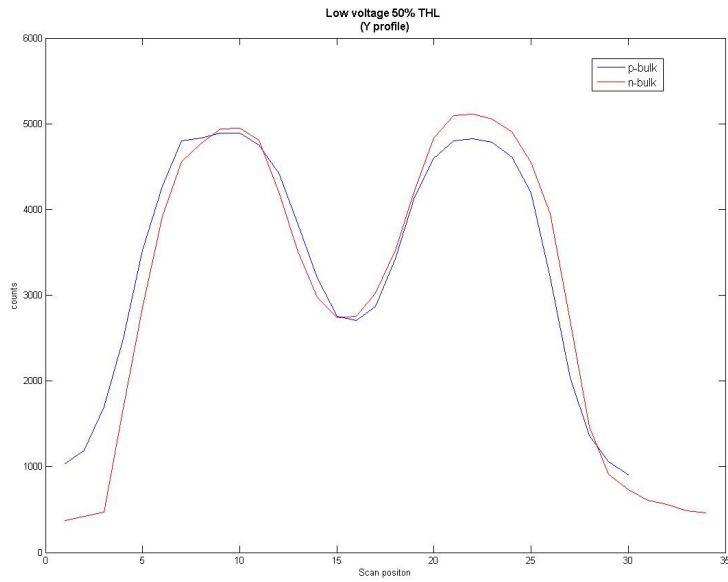
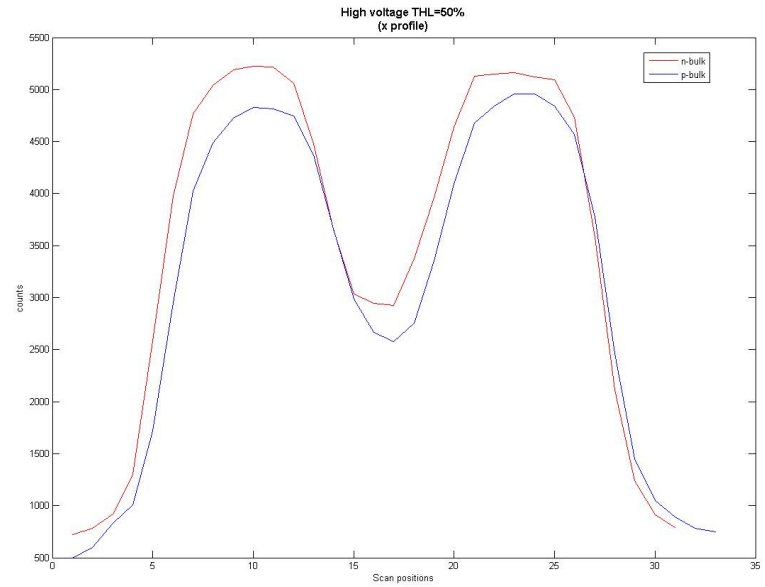
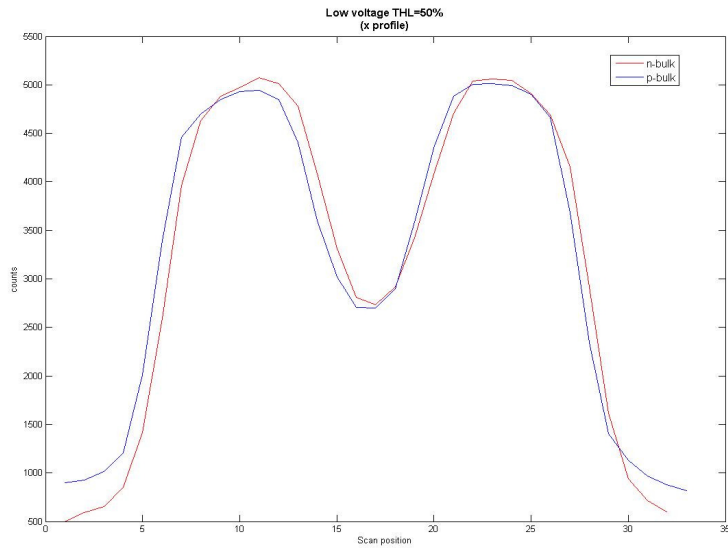
THL	440 (50%)
Voltage (V)	-20



THL	440 (50%)
Voltage (V)	-40



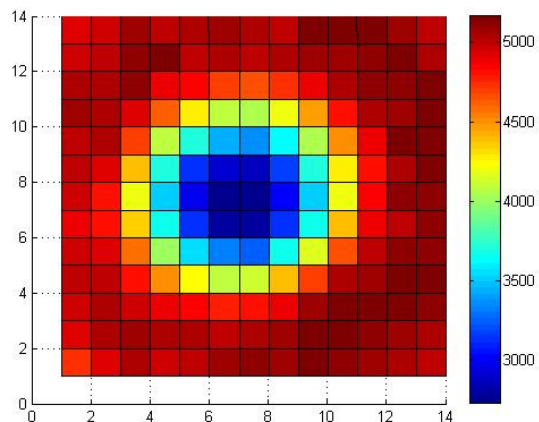
J03-W0026 MXR3D n-bulk compare to F09-W0015 TPX3D p-bulk



J03-W0026 MXR3D n-bulk

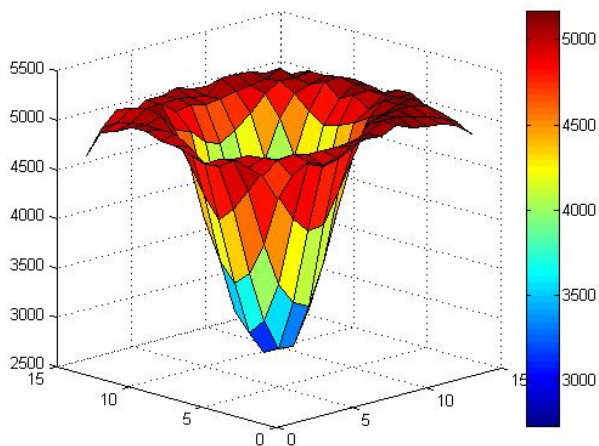
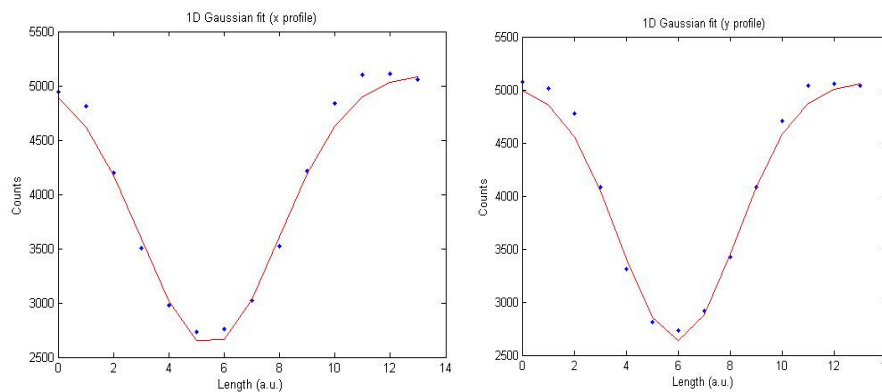
THL	345 (50%)
Voltage (V)	5

Selected data from (10:23,7:20)

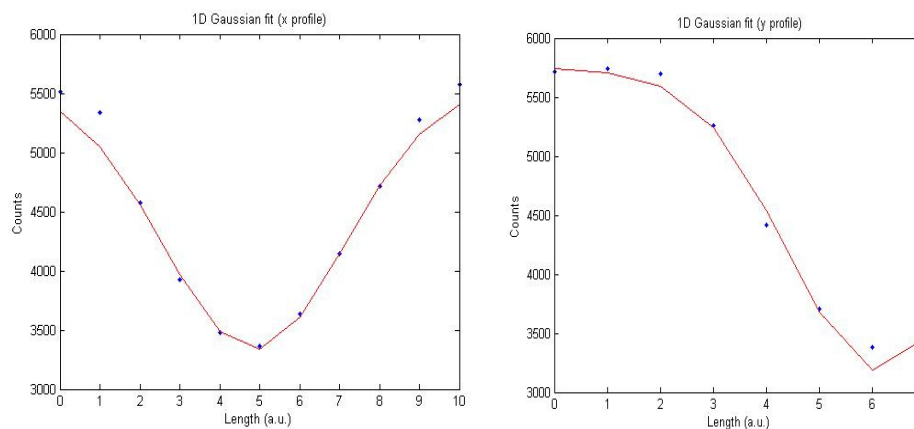


1D Gaussian fit of the profile

C22



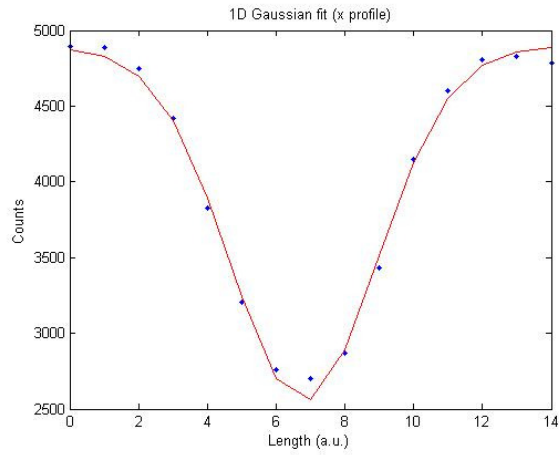
C24



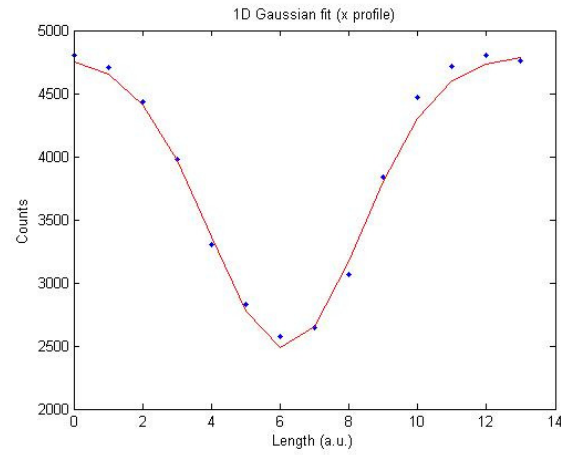
1D Gaussian fit of the profile

F09-W0015 TPX3D p-bulk

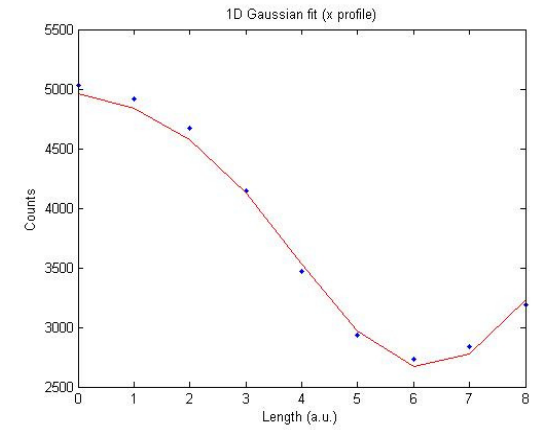
C31



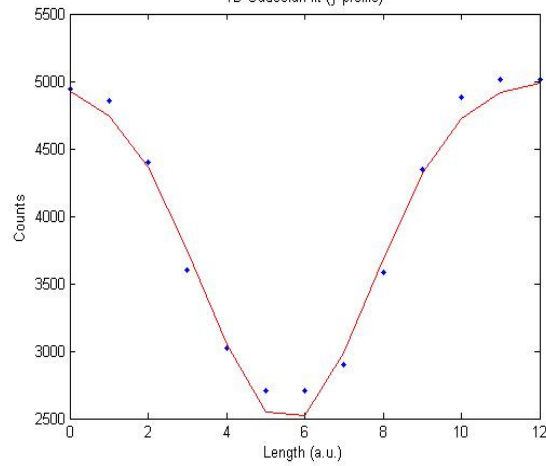
C34



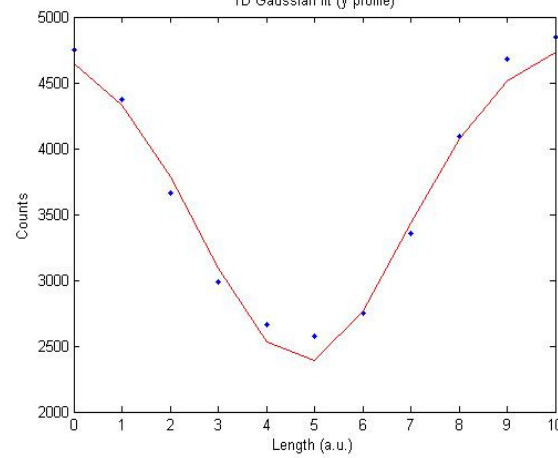
C35



1D Gaussian fit (y profile)



1D Gaussian fit (y profile)



1D Gaussian fit (y profile)

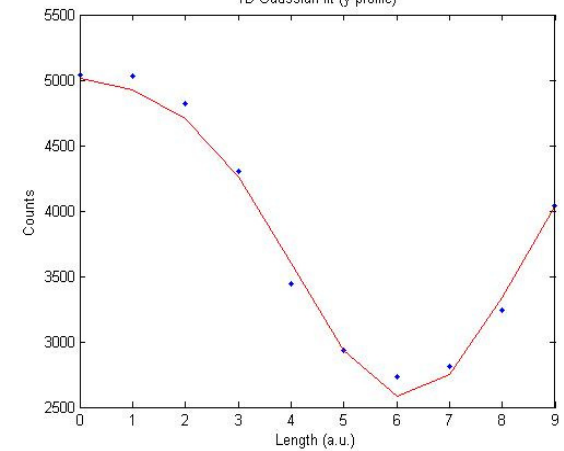


Table of the central electrode Gaussian fit (see archive FWHMFitGaussian.xls)

J03-W0026 MXR3D n-bulk	Profile	Sigma (a.u.)	Sigma (um)	Mu	A	B	FWHM (a.u.)	FWHM(um)
22	x	2.48576	6.21	5.48209	2504.24	5110.6	5.85	14.63
	y	2.25903	5.65	5.9706	2436.09	5075.6	5.32	13.30
23	x	2.37654	5.94	5.26087	2480.03	5323	5.60	13.99
	y	2.17998	5.45	6.31572	2500.94	5220.6	5.13	12.83
25	x	2.36214	5.91	6.01082	2326.55	5806.2	5.56	13.91
	y*	1.7879	4.47	5.40622	2430.96	5856.2	4.21	10.53
24	x	2.27032	5.68	4.85125	2239.44	5576.4	5.35	13.37
	y*	1.75101	4.38	6.15688	2564.2	5742.6	4.12	10.31
26	x	2.37557	5.94	5.90532	2385.99	5146	5.59	13.99
	y**	1.9283	4.82	5.4952	2336.71	5164	4.54	11.35
27	x	2.27612	5.69	5.63644	2545.15	5455.2	5.36	13.40
	y**	2.38608	5.97	5.50483	2424.63	5475.2	5.62	14.05

* Fit with only 8 values

** Fit with 7 values

PRELIMINARY RESULTS

Table of the central electrode Gaussian fit (see archive FWHMFitGaussian.xls)

F09-W015 TP3D p-bulk	Profile	Sigma (a.u.)	Sigma (um)	Mu	A	B	FWHM (a.u.)	FWHM (um)
31	x	2.14132	5.35	6.79454	2343.19	4891.2	5.04	12.61
	y	2.14415	5.36	5.54409	2550.68	5015.6	5.05	12.62
34	x	2.19905	5.50	6.15001	2317.13	4800.8	5.18	12.95
	y	2.11812	5.30	4.75912	2468.17	4844	4.99	12.47
37	x*	2.26923	5.67	7.07771	2336.18	4902.4	5.34	13.36
	y*	2.15133	5.38	6.61517	2524.85	4986.6	5.07	12.66
35	x*	2.34601	5.87	6.25238	2378.7	5034	5.52	13.81
	y*	2.10472	5.26	6.18869	2474.16	5043.6	4.96	12.39
38	x*	2.35074	5.88	7.24724	2333.41	4561.6	5.54	13.84
	y*	2.24421	5.61	6.18055	2344.32	4544.8	5.28	13.21
36	x*	2.34195	5.85	7.20468	2371.49	4697.6	5.51	13.79
	y*	2.219	5.55	6.40494	2383.27	4599.4	5.23	13.06

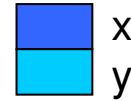
* Fit with 9 values

PRELIMINARY RESULTS

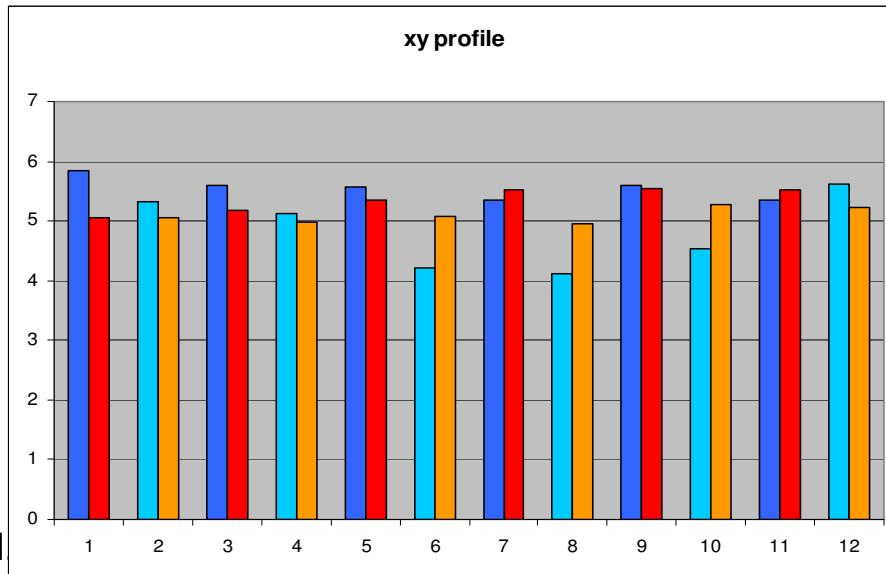
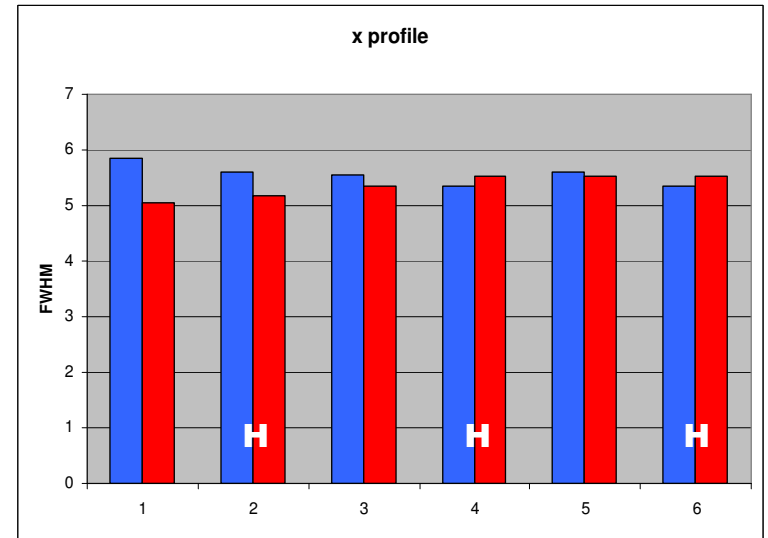
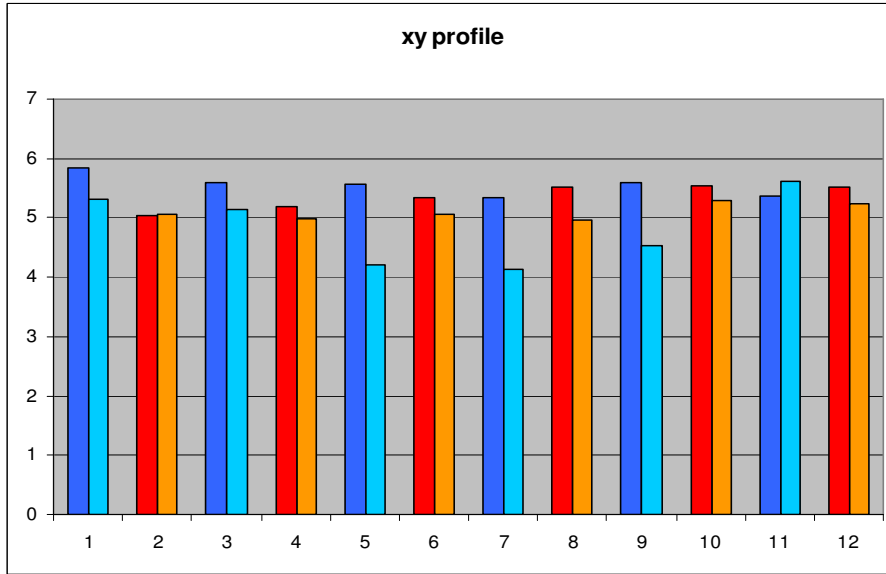
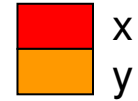
Results representation 1D

Gaussian fit of the profile

J03-W0026
MXR3D n-bulk



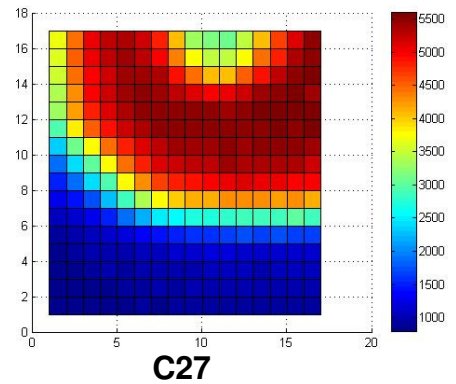
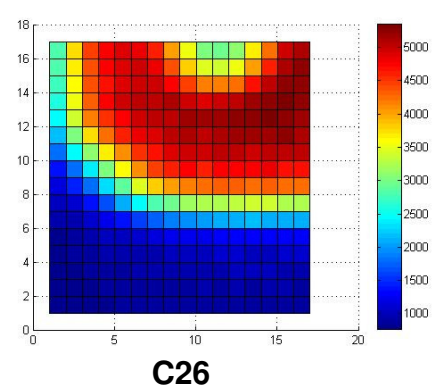
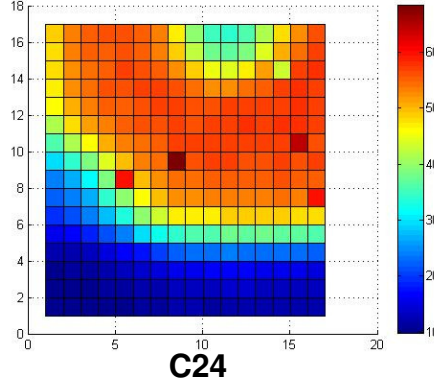
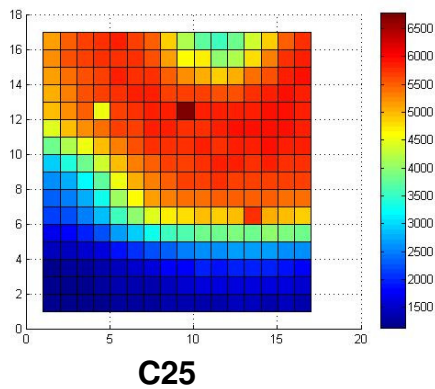
F09-W0015
TPX3D p-bulk



E.N

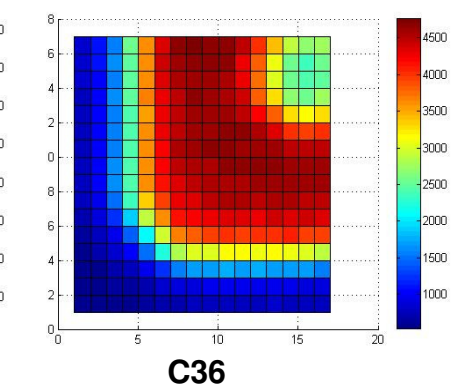
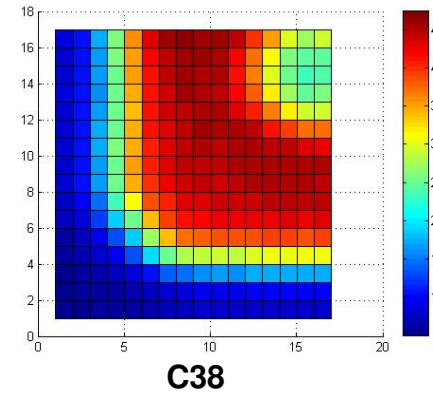
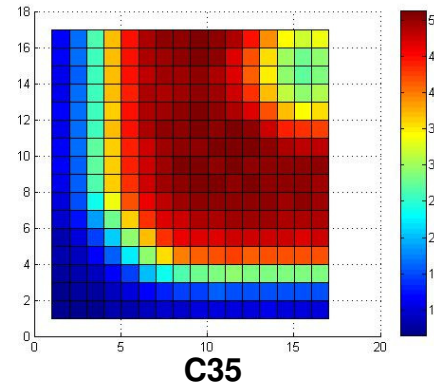
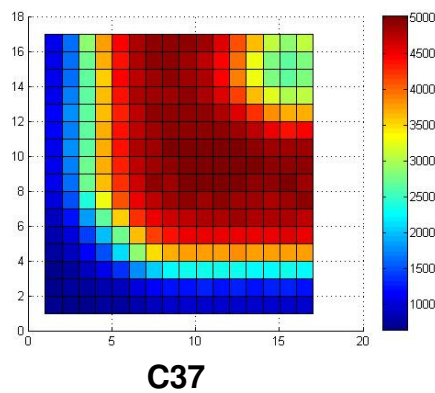
J03-W0026 MXR3D n-bulk

Code	25	24	26	27
THL	368 (25%)	368 (25%)	323 (75%)	323 (75%)
V	5	20	5	20

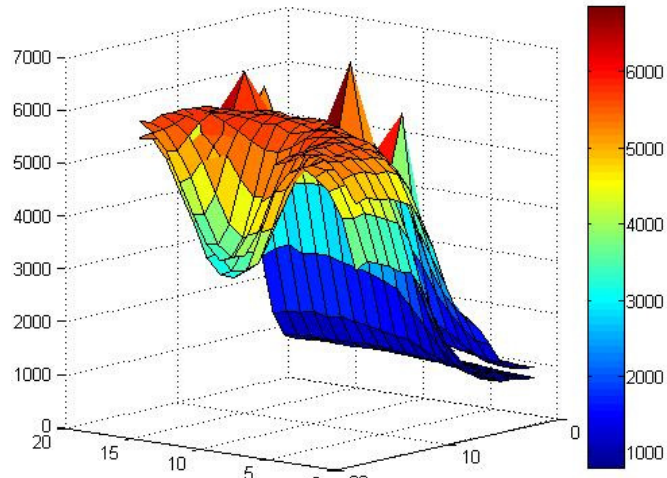


F09-W0015 TPX3D p-bulk

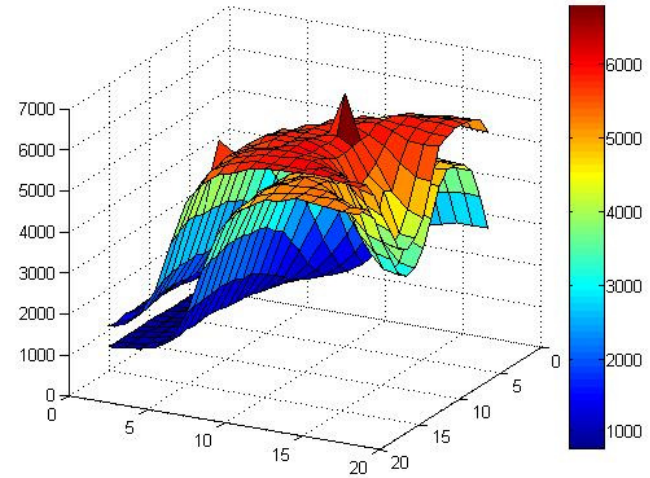
Code	37	35	38	36
THL	407 (25%)	407 (25%)	472 (75%)	472 (75%)
V	-20	-40	-20	-40



J03-W0026 MXR3D n-bulk

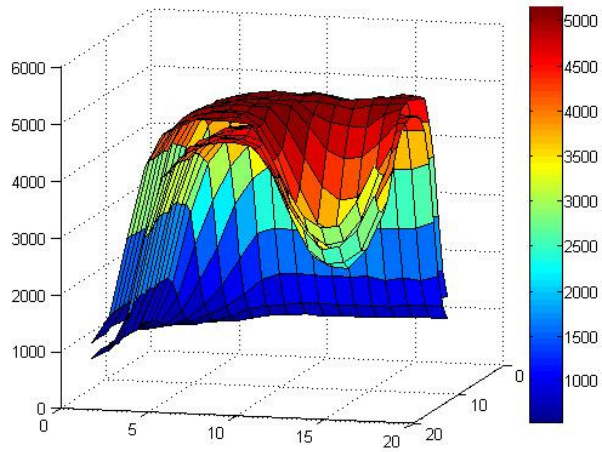


C24 versus C27

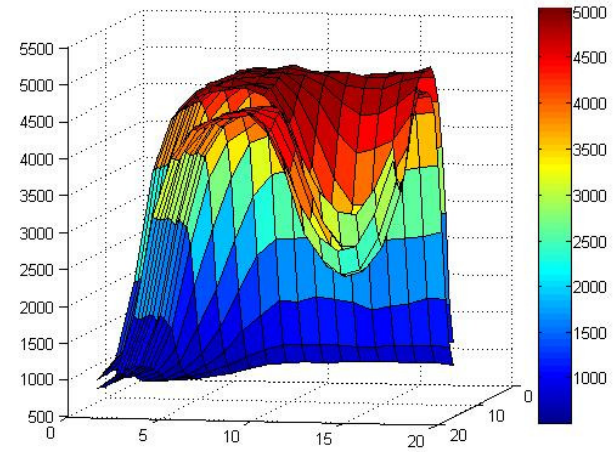


C25 versus C26

F09-W0015 TPX3D p-bulk

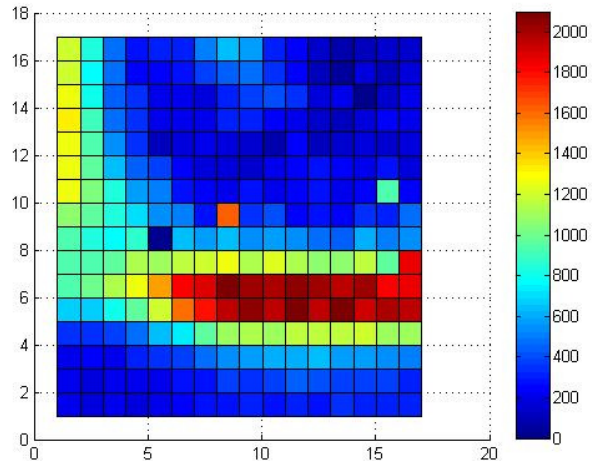


C35 versus C36

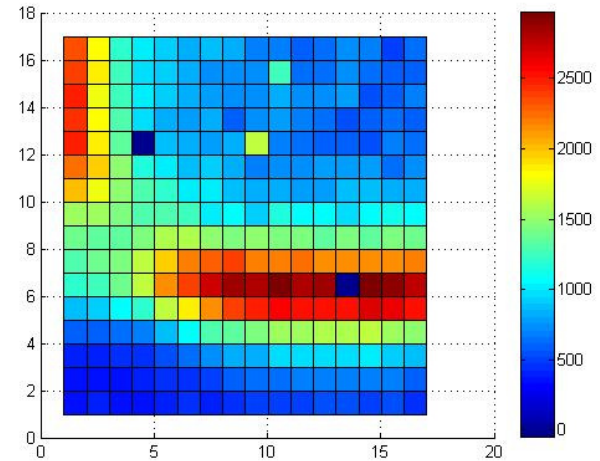


C37 versus C38

J03-W0026 MXR3D n-bulk

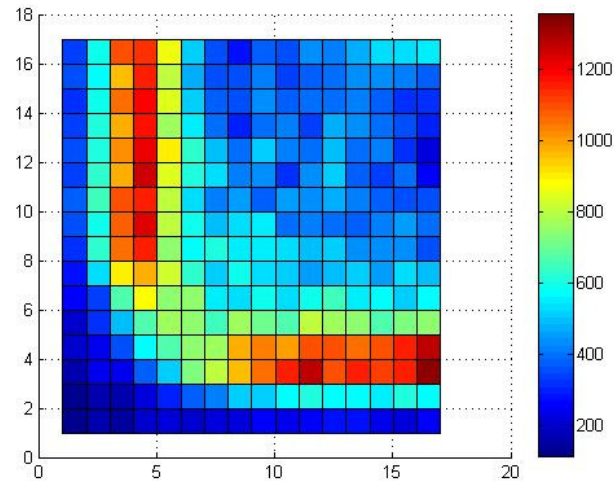


C24 minus C27

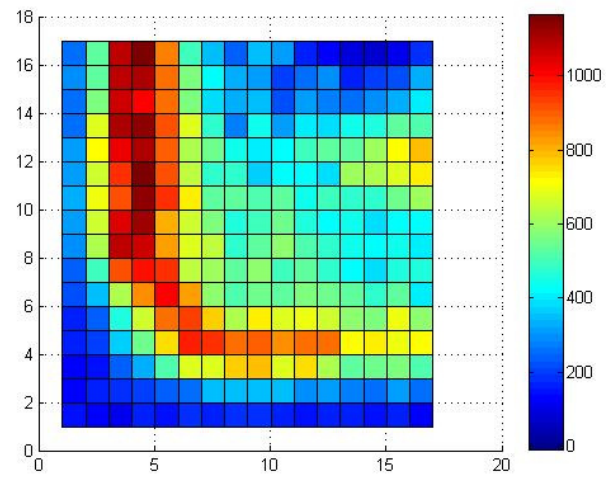


C25 minus C26

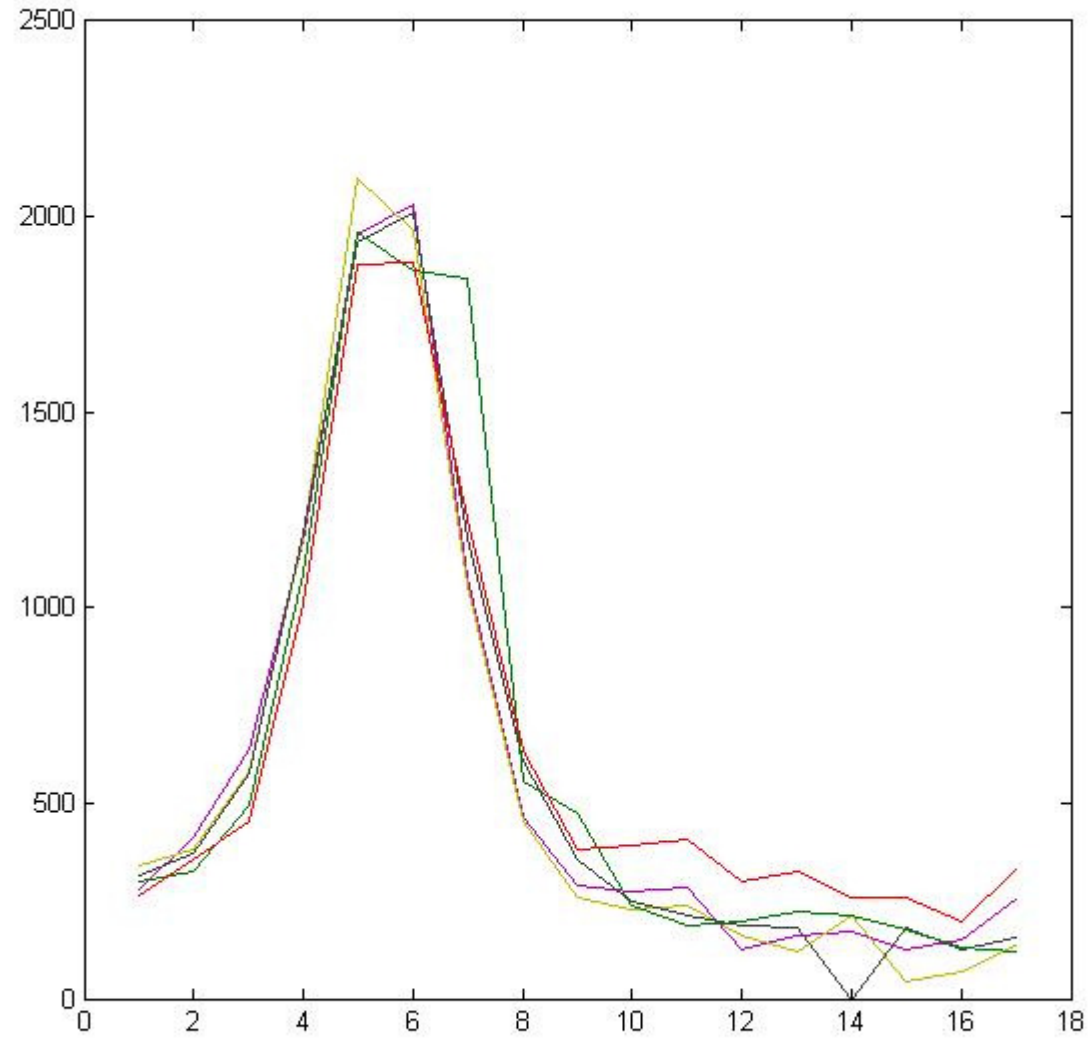
F09-W0015 TPX3D p-bulk



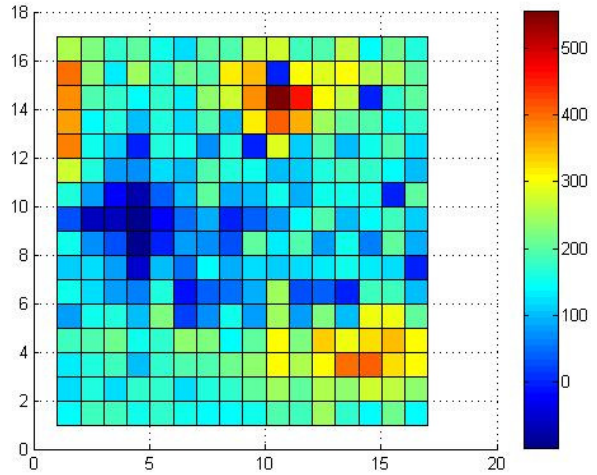
C35 minus C36



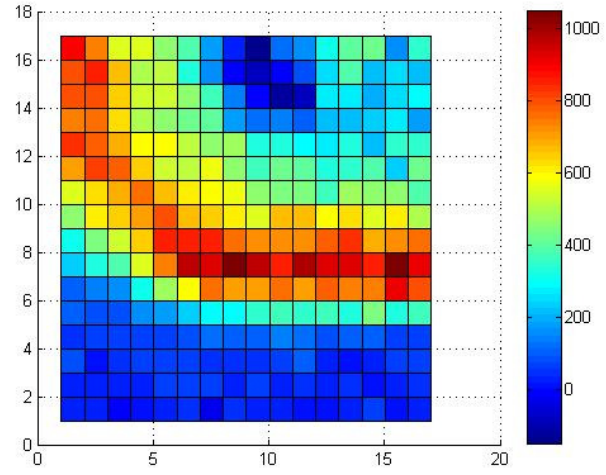
C37 minus C38



J03-W0026 MXR3D n-bulk

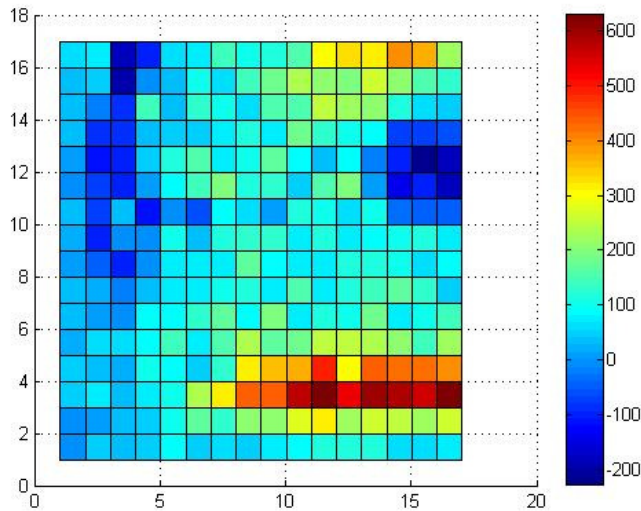


C25 minus C24 smooth

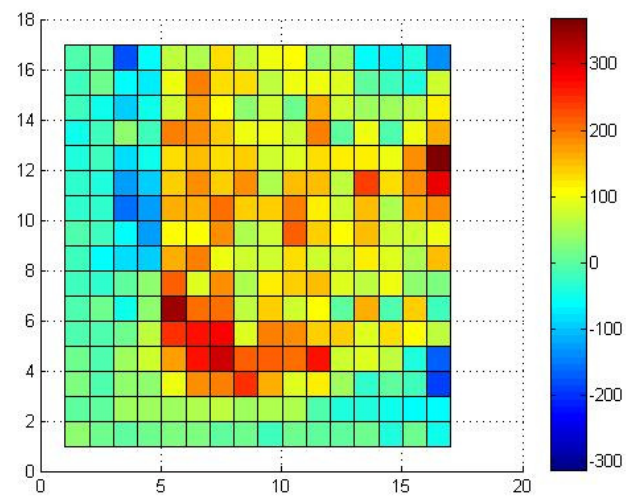


C27 minus C26

F09-W0015 TPX3D p-bulk



C35 minus C37



C36 minus C38

Additional Information

Code	22			23			24			25			26			27		
J03-W0026 MXR3D n-bulk	1 st exp (156,120)*			2 nd exp (156,120)			3 rd exp (156,120)			4 th exp (156,120)			5 th exp (156,120)			6 th exp (156,120)		
THL	345 (50%)			345 (50%)			368 (25%)			368 (25%)			323 (75%)			323 (75%)		
Voltage (V)	5			20			20			5			5			20		
Max Event (i,j)	5169.6	11	15	5368.2	12	18	6846.6	9	8	6772.6	12	9	5353.8	12	14	5610.8	12	15
Min Event (i,j)	368.8	31	1	477.4	1	1	983.6	1	2	1133	1	1	771.8	1	1	796.6	1	1
CentralEl (i,j)	2735.4	16	12	2924.2	17	12	3362.0	17	11	3530.6	17	11	2884.8	17	11	3086	17	10
Reduced matrix	(10:23,7:20)			(10:23,7:20)			(10:17,6:16)			(11:17,5:17)			(11:17,5:17)			(11:17,5:17)		

Code	31			34			35			36			37			38		
F09-W0015 TPX3D p-bulk,	1 st exp (158,135)			2 nd exp (158,135)			3 rd exp (158,135)			4 th exp (158,135)			5 th exp (158,135)			6 th exp (158,135)		
THL	440 (50%)			440 (50%)			407 (25%)			472 (75%)			407 (25%)			472 (75%)		
Voltage (V)	-20			-40			-40			-40			-20			-20		
Max Event (i,j)	5099.8	22	12	5017.2	21	13	5132.6	10	10	4772.2	17	9	5029.0	10	9	4751.2	17	10
Min Event (i,j)	615.2	33	30	450.4	1	1	650.4	1	1	535.4	1	1	649.8	1	1	501	1	1
CentralEl (i,j)	2702.4	17	16	2577.6	15	16	2732	14	15	2389	15	15	2648.4	15	15	2348.2	14	15
Reduced matrix	(11:23,9:23)			(10:20,10:23)			(8:17,9:17)			(8:17,8:17)			(8:17,8:17)			(8:17,8:17)		