

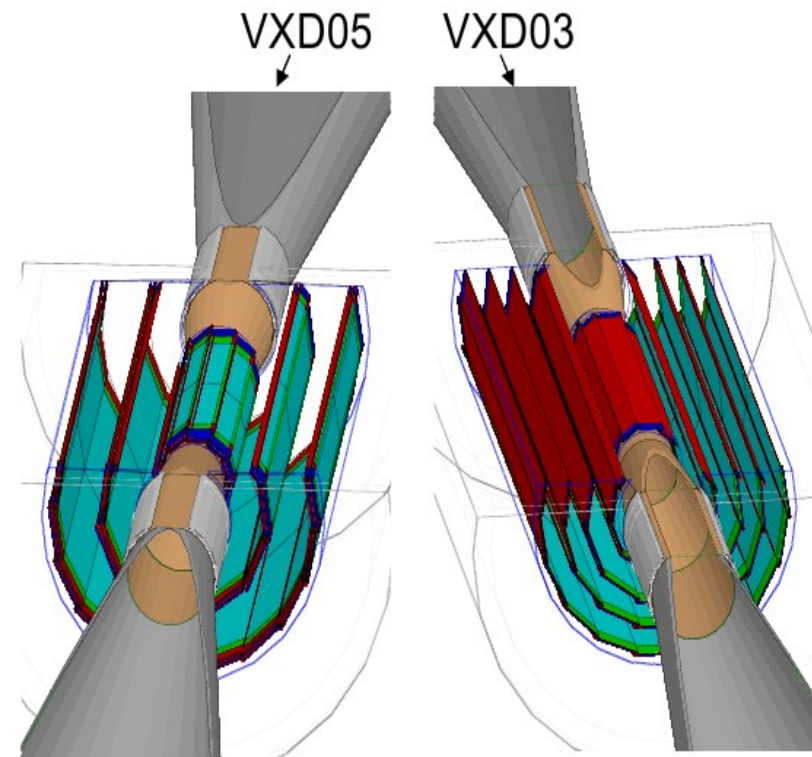
VXD Simulation

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VXD Geometries

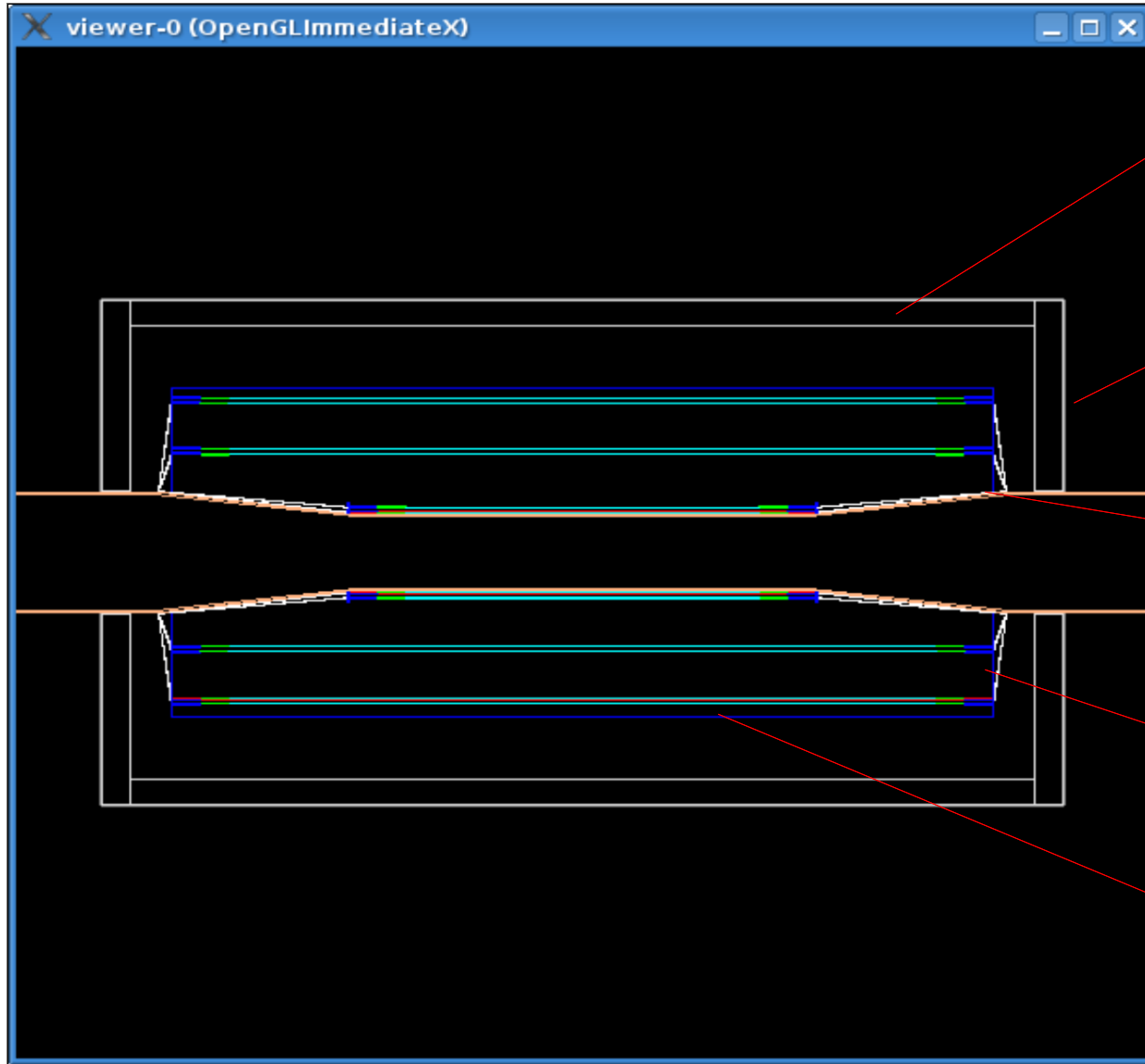
	VXD03	VXD05
layers	5	3x2
Sensitive length (mm)	62.5 - 125	62.5 - 125
Sensitive width (mm)	11-15-22	11-22
Radii (mm)	15-60	16-60
Sensitive thickness ($\mu\text{m}/\text{ladder}$)	50	50
Graphite ins. Thickness ($\mu\text{m}/\text{ladder}$)	134	134



Fixed bug @ VXD05

- Material budget of support structure of the double layers geometry corrected
 - ✓ Still 2 support structures but thickness decreased by a factor of 2 so is consistent with $0.16\%X_0$ per layer
 - ✓ Correction implemented inside new Mokka release 07-04

VXD05 dimensions



Cryostat tube:
0.5 alu + 10 styropor mm thickness
z 2*170.25 mm
R-out 100 mm

Cryostat endplate:
0.5 alu + 10 styropor mm thickness
z 170.25 mm
R-out 100 mm

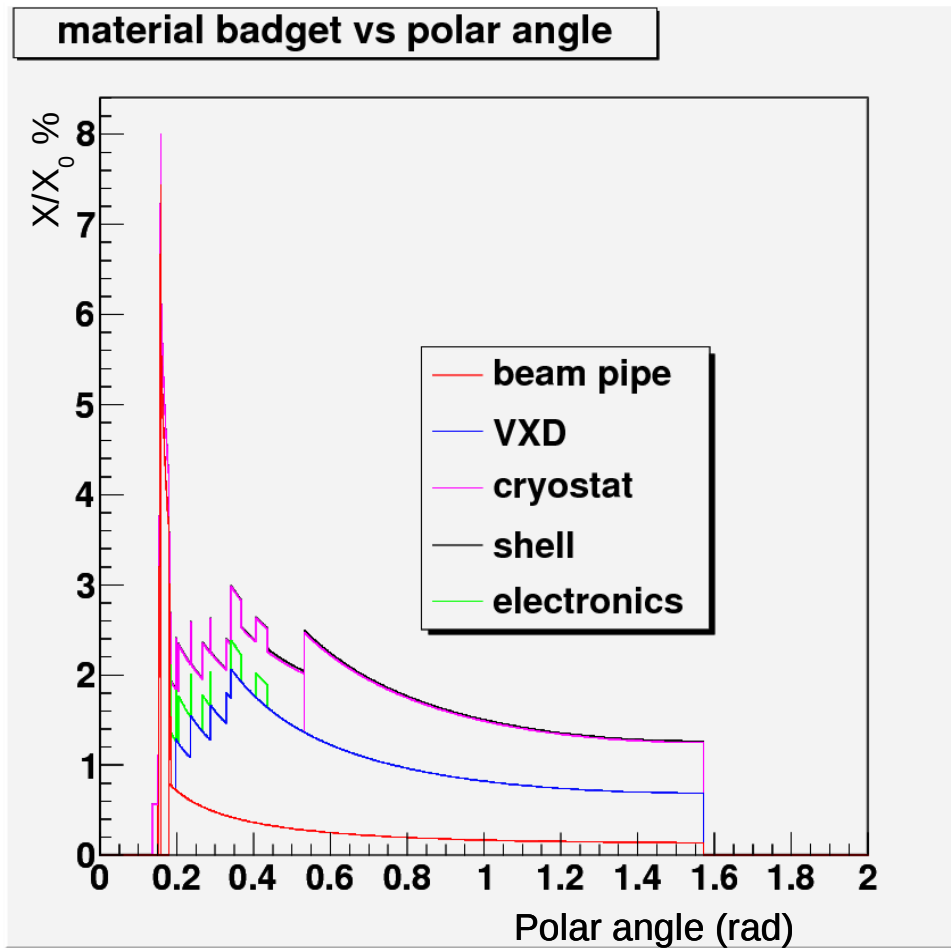
Kapton:
0.0094 mm thickness
z-begin (-)83 mm (145.5)
z-end (-)150 mm

Beryllium endplate:
0.494 mm thickness
R-out 65 mm

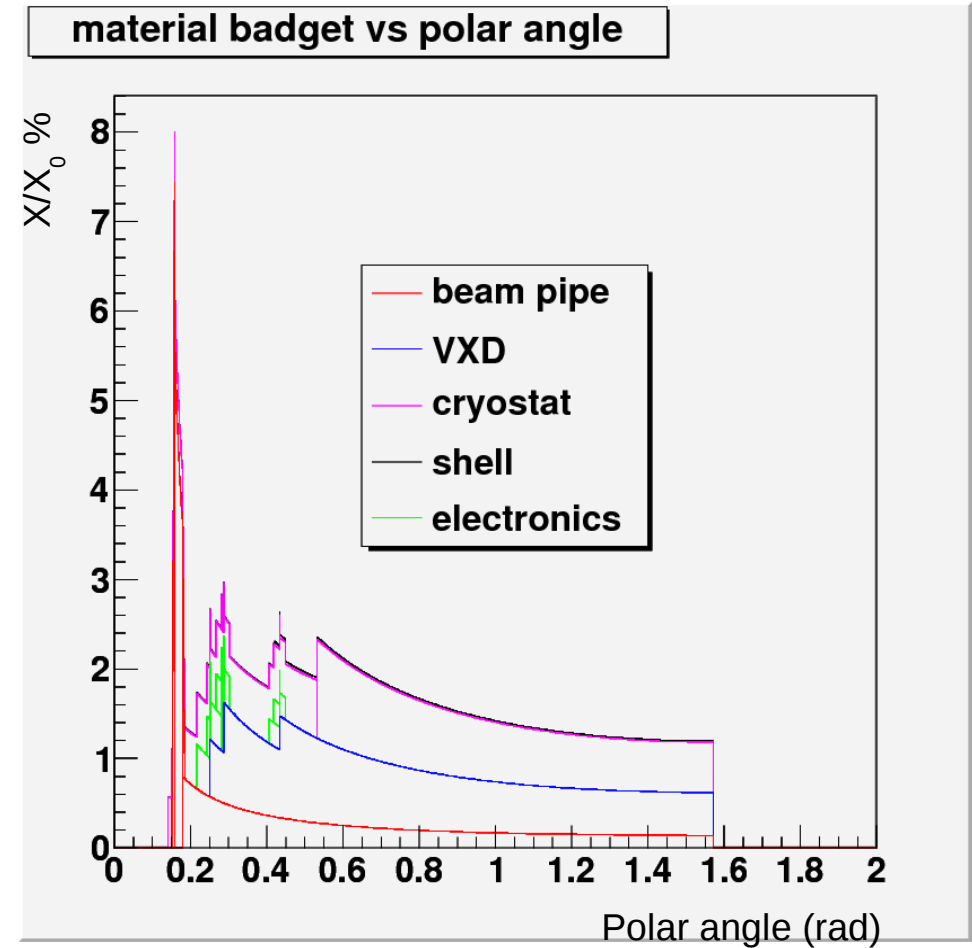
Beryllium shell:
0.494 mm thickness
z-begin -145 mm
z-end 145 mm

VXD Material budget

single layers



double layers



- Yet obsolete

Conclusions

- Realistic description of VXD models
- To do
 - Prolongate the cabling along the beam pipe
 - Decrease cryostat radius by 10mm
 - No impact on physics