Subject: Re: AGATA Crystal positions (Look-Up Table)
Posted by thuyuk on Thu, 19 Mar 2015 13:46:20 GMT
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Dear all,

If we compare the coordinates of the first several crystals in both cases:

Lookup table inside the GW:

0	0	48.08390	31.04885	-227.95092
	1	0.45352	0.86888	0.19842
	2	0.86889	-0.48060	0.11858
	3	0.19839	0.11862	-0.97292
1	0	40.86042	88.71803	-213.76361
	1	0.64447	-0.74500	0.17214
	2	-0.73906	-0.54919	0.39011
	3	-0.19610	-0.37863	-0.90454
2	0	96.65970	58.36943	-206.11951
	1	-0.90585	-0.01692	0.42326
	2	0.09899	0.96308	0.25036
	3	-0.41187	0.26869	-0.87073
3	0	-14.67047	55.32513	-227.95092
	1	-0.68622	0.72558	-0.05146
	2	0.69982	0.67784	0.22535
	3	0.19839	0.11862	-0.97292
4	0	-71.74929	66.27595	-213.76361
	1	0.90204	0.29209	-0.31782
	2	0.38454	-0.87825	0.28426
	3	-0.19610	-0.37863	-0.90454
5	0	-25.64313	109.96598	-206.11951
	1	-0.37407	-0.92117	-0.10731
	2	-0.83092	0.28151	0.47991
	3	-0.41187	0.26869	-0.87073
6	0	-57.15075	3.14396	-227.95092
	1	-0.87762	-0.42045	-0.23022
	2	-0.43637	0.89953	0.02069
	3	0.19839	0.11862	-0.97292

Lookup table insdie the prespec an. pack.:

0	0	41.34692	39.57936	227.95091
	1	0.95033	-0.26615	0.16133
	2	0.23981	0.95660	0.16553
	3	-0.19839	-0.11862	0.97292
1	0	95.77207	19.18782	213.76361
	1	-0.56958	-0.70689	0.41938
	2	0.79820	-0.59745	0.07704
	3	0.19610	0.37863	0.90454
2	0	79.18105	80.50124	206.11951
	1	-0.11363	0.93294	0.34164
	2	-0.90413	-0.23965	0.35372
	3	0.41187	-0.26869	0.87073
3	0	-24.86530	51.55395	227.95091

	1	0.06560	-0.99203	-0.10758
	2	0.97793	0.04248	0.20459
	3	-0.19839	-0.11862	0.97292
4	0	11.34650	97.01402	213.76361
	1	-0.93514	0.34976	0.05632
	2	-0.29505	-0.85692	0.42266
	3	0.19610	0.37863	0.90454
5	0	-52.09293	100.18191	206.11951
	1	0.82476	0.51622	-0.23084
	2	-0.38746	0.81322	0.43422
	3	0.41187	-0.26869	0.87073
6	0	-56.71452	-7.71727	227.95091
	1	-0.90979	-0.34695	-0.22782
	2	0.36458	-0.93035	-0.03909
	3	-0.19839	-0.11862	0.97292

First of all, it is not clear for me what would the "small" coordinates mean, in other words, the coordinates with the id "0" make sense, but the ids "1, 2 and 3" are not obvious for me.

Well, if we compare the coordinates with id 0, then we immediately see that the z coordinates are swapped from -z to +z, from the GW to the prespec code, respectively. But, the transformation on x and y seem totally confusing. Damian, did you find out by yourself the transformation, or you were told by somebody else?

Does anybody know if the crystal numbering was changed from Legnaro to GSI? This information is required to focus on comparing crystal by crystal without worrying if also the crystals were scrambled.

edit:
sorry for the bad view of the coordinates, the tabs are not shown properly in the html, I guess.
I uploaded two file, so you can compare them with your favorite viewer.
So, the one with suffix __gw is from the GW, and the __orig is the one inside the prespec code.

File Attachments

1) Adapter.CrystalPositionLookUpTable__gw, downloaded 557 times
2) Adapter.CrystalPositionLookUpTable__orig, downloaded 535 times