



Published on *cisTEM* (<https://cistem.org>)

[Home](#) > 3D structure handness

---

## 3D structure handness

Thu, 06/27/2019 - 21:42

#1



jamonshi

### 3D structure handedness

I reconstructed a structure to 3.X someish resolution, but notice the handedness is wrong. So I inverted the handedness and generate a new 3D. Then I import this inverted map as 3D refence and run "Auto Refine" with a new refinement package with 10 classes. Strangely, the resulting 3D map show the wrong handedness again and totally not aligned with the original reference map. I am wondering where went wrong?

Regards,

Jian





timgrant

Hi Jian,

Hi Jian,

This is strange, is it aligned with the map prior to inverting the handedness? This could be a couple of things, the most simple is that the wrong 3d was selected as reference for auto-refine, although I assume you are confident this didn't happen? Another possibility is that the handedness is only defined at high resolution, this can be the case in very symmetric viral capsids for example, and when you filter to low resolution for the auto-refine initial rounds, the information is lost, is this a possibility?

At any rate, processing with the wrong handedness is not a problem, it doesn't affect the refinement. You can always process with the wrong handedness and switch it right at the very end.

Thanks,

Tim



[Log in](#) or [register](#) to post comments

---

**Source URL:**<https://cistem.org/3d-structure-handness>