

Original analysis with or without specifying the default spectral alignment in the script

```
(opts.SubSpecAlignment.mets = 'L2Norm');
```

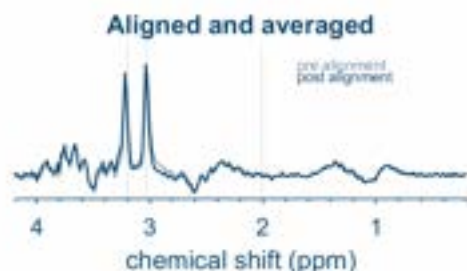
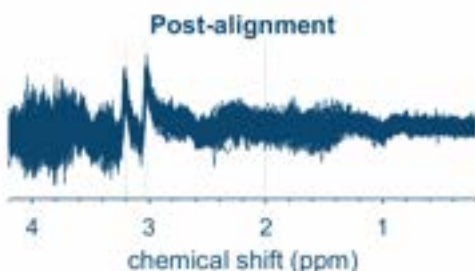
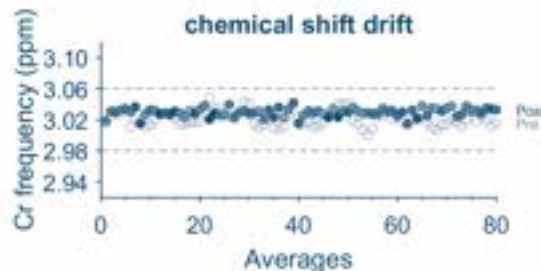
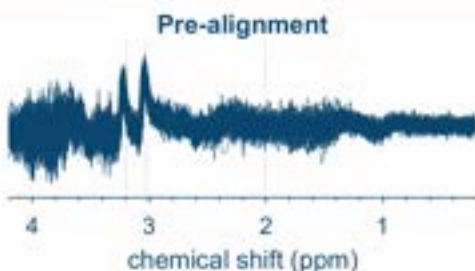
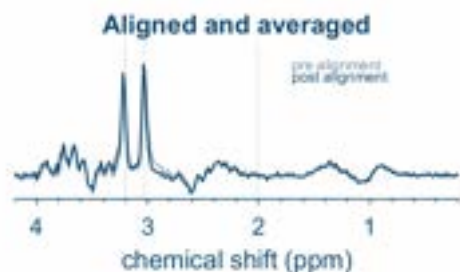
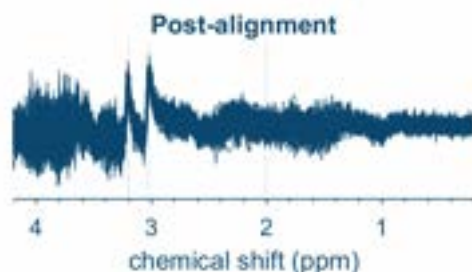
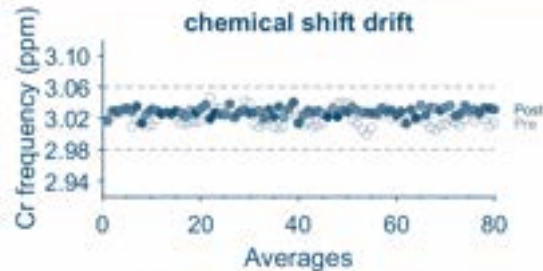
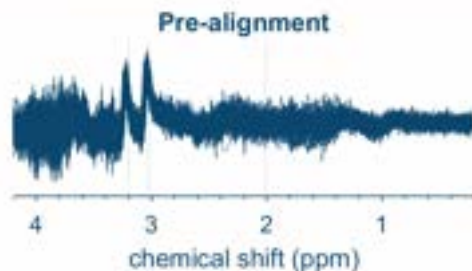
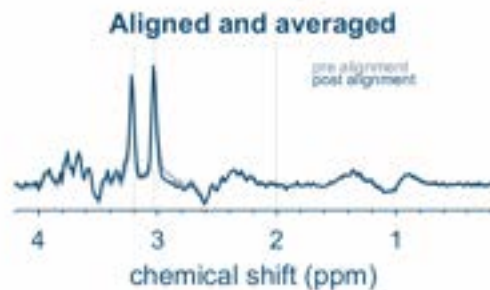
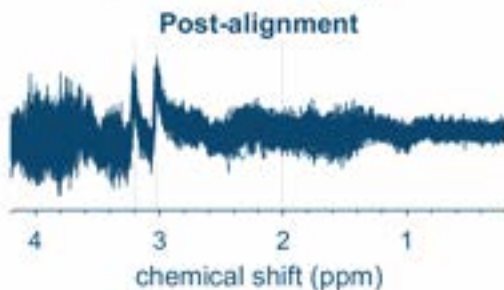
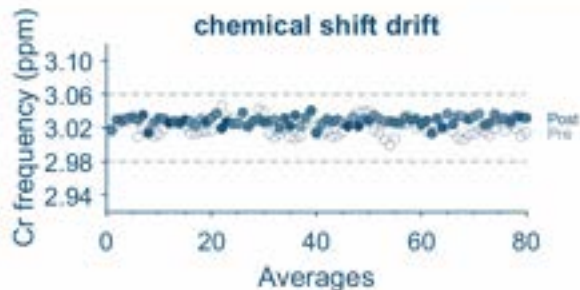
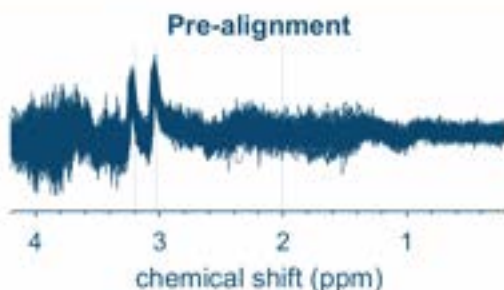
Original analysis + specifying unstable water correction in the script (some subspectra are slightly altered but quite similar looking to the default fit)

```
opts.UnstableWater = 1;
```

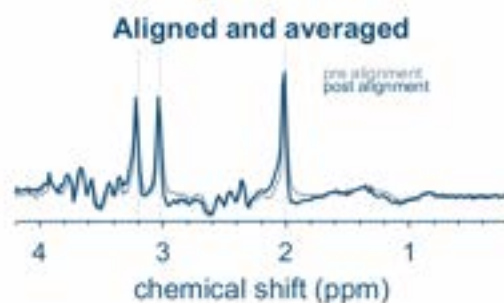
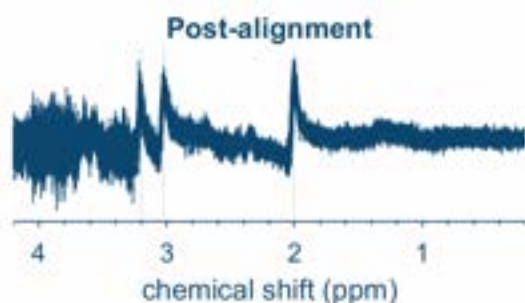
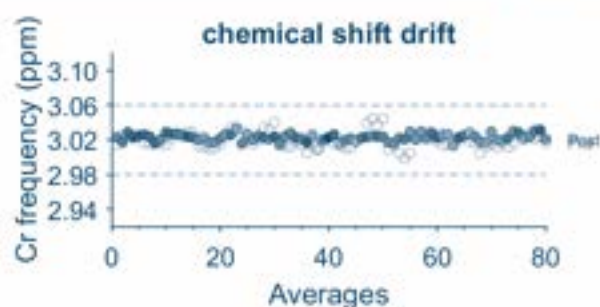
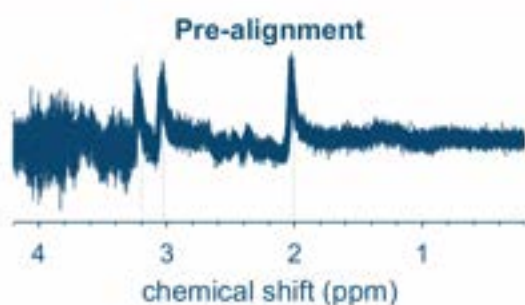
Alternative parameters for spectral alignment + specifying unstable water (Helge's suggestion, by far the best looking)

(two added lines in the script under the other options)

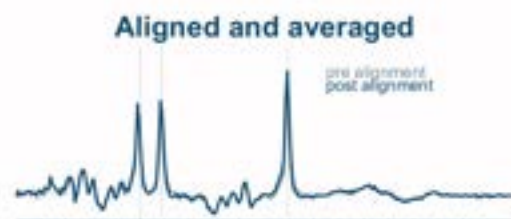
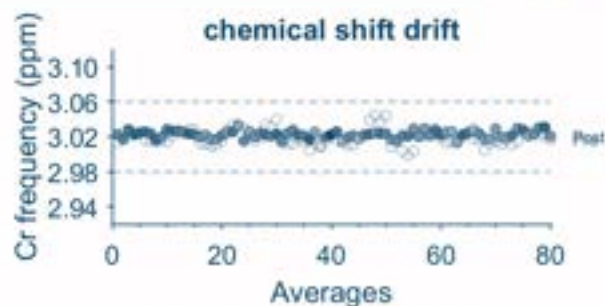
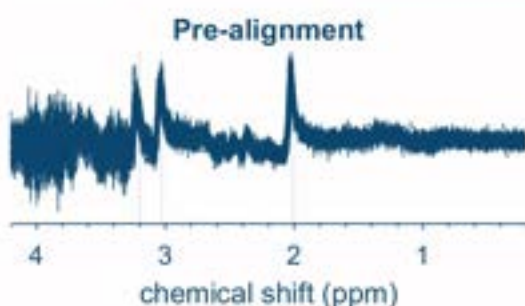
```
opts.SubSpecAlignment.mets = 'L1Norm';  
opts.UnstableWater = 1;
```



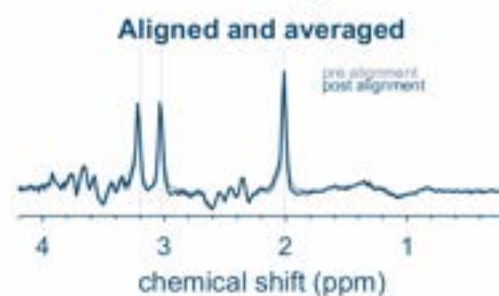
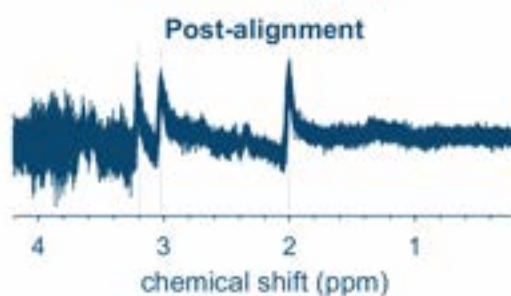
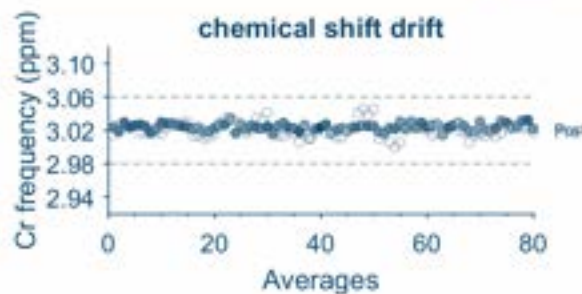
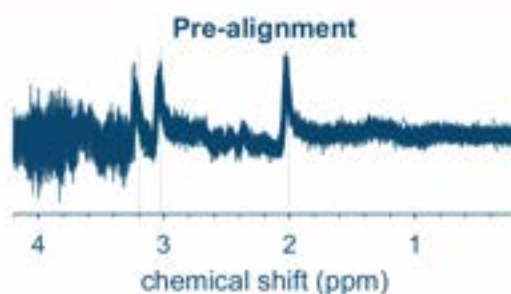
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Scan: 2 Reference shift: -3.0099 Hz

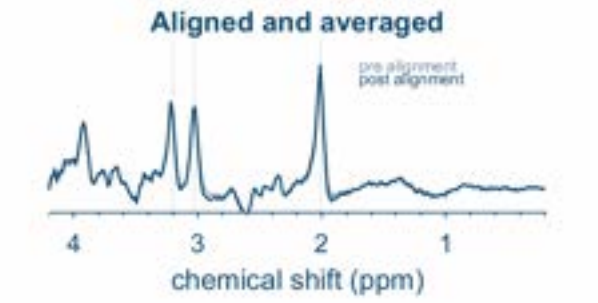
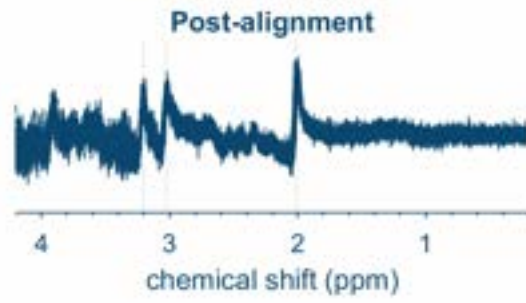
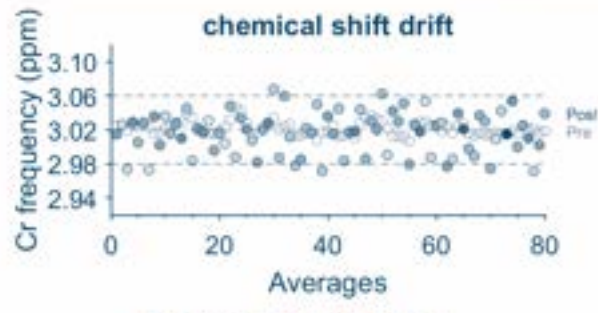
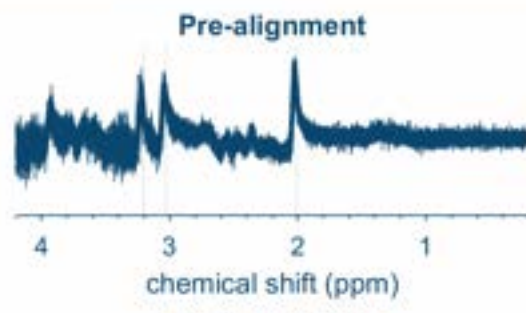
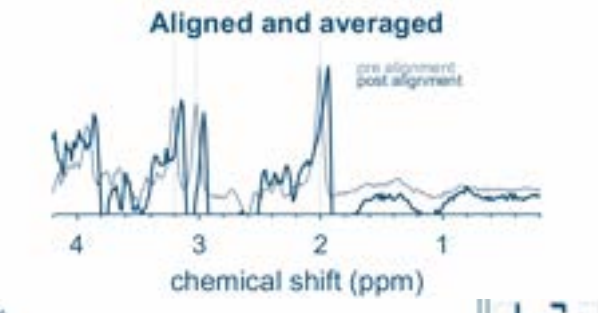
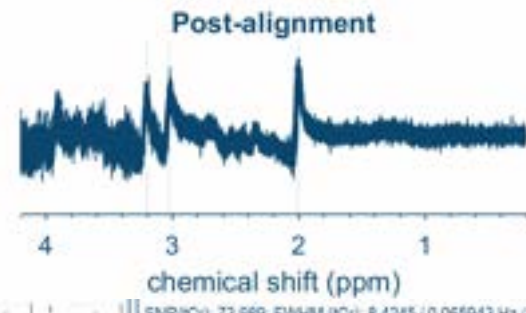
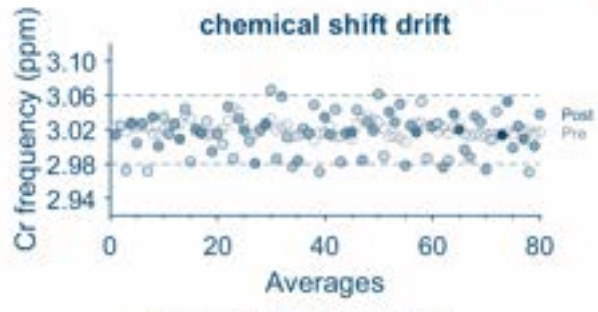
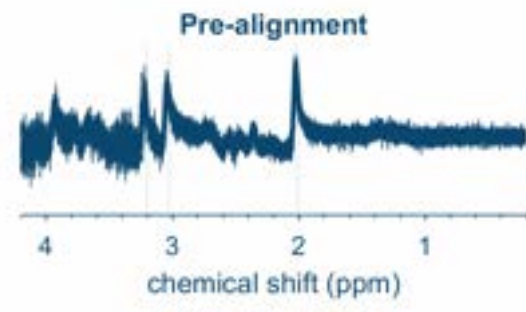
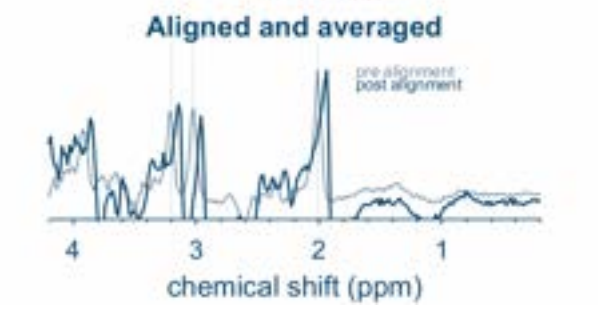
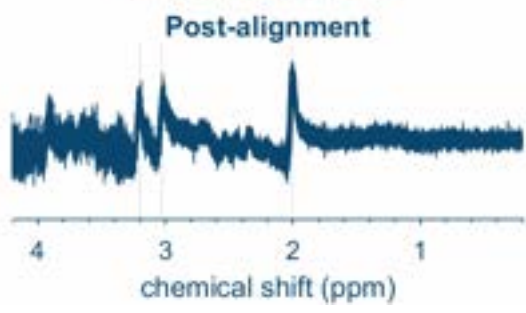
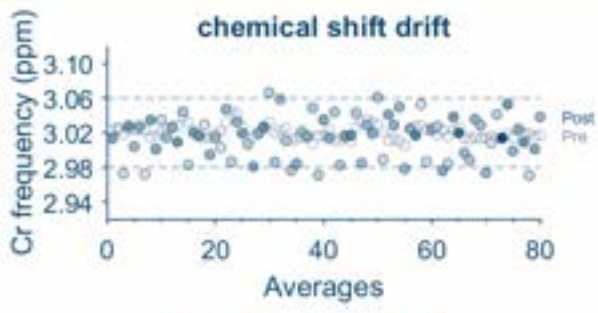
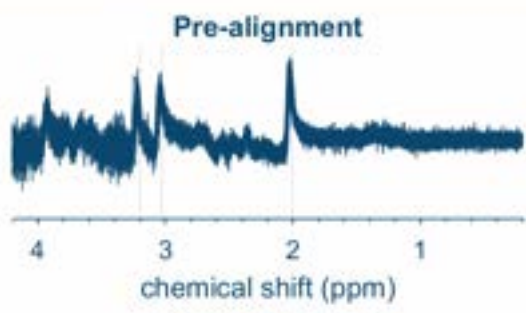


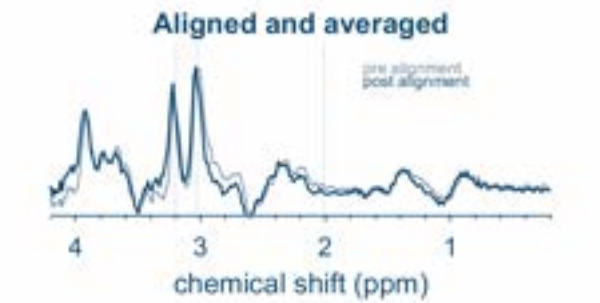
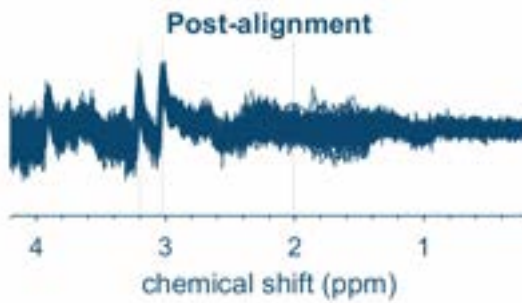
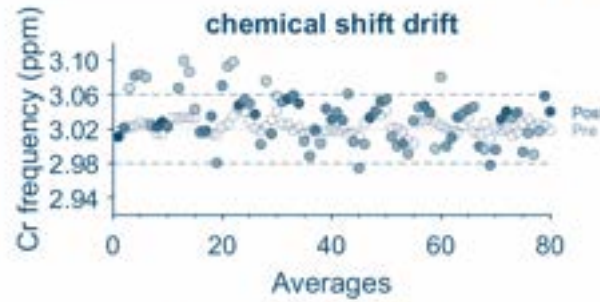
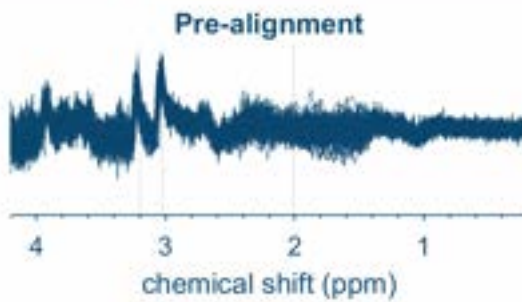
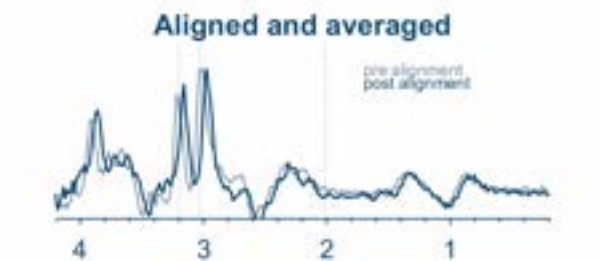
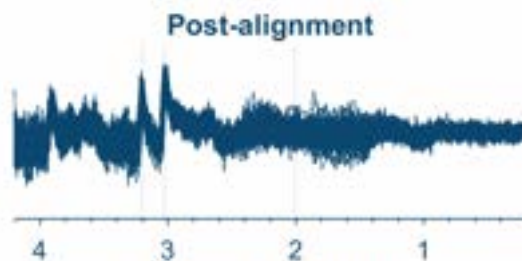
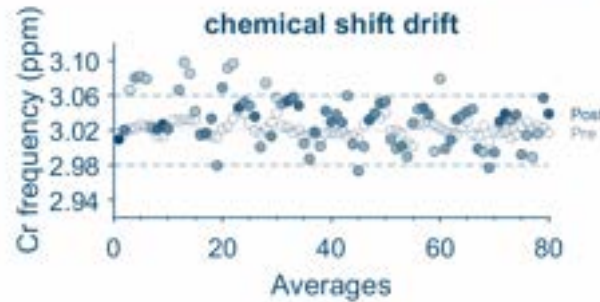
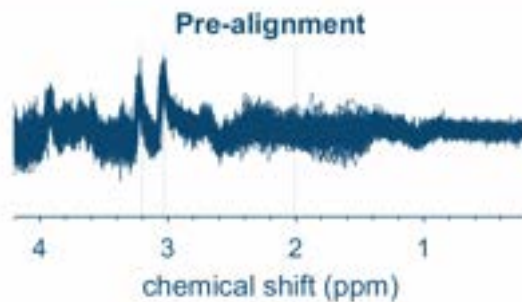
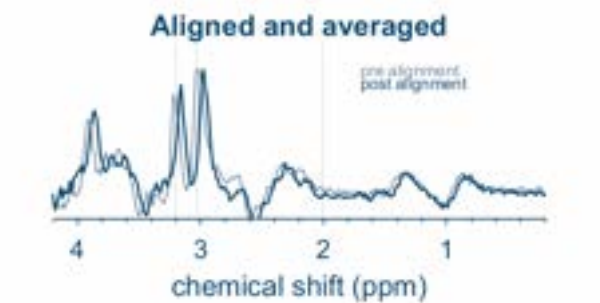
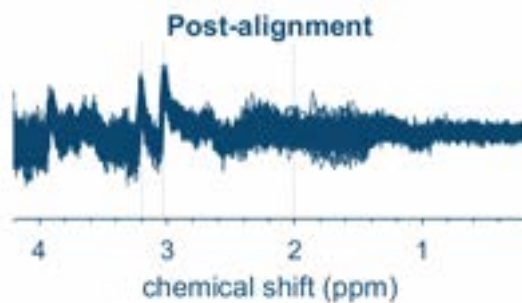
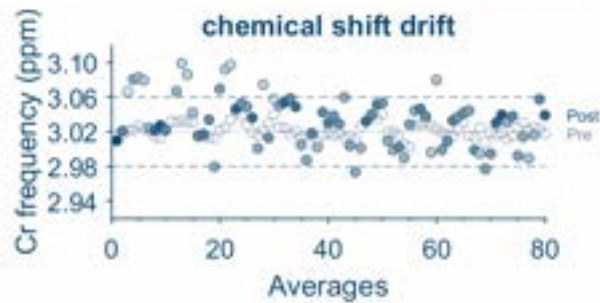
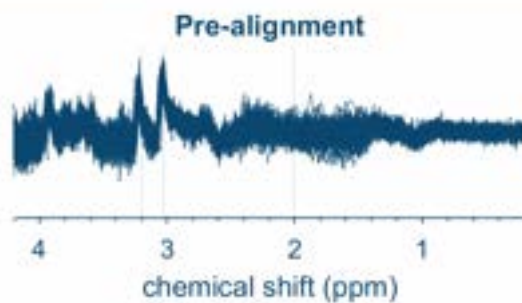
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Scan: 2 Reference shift: -3.0383 Hz

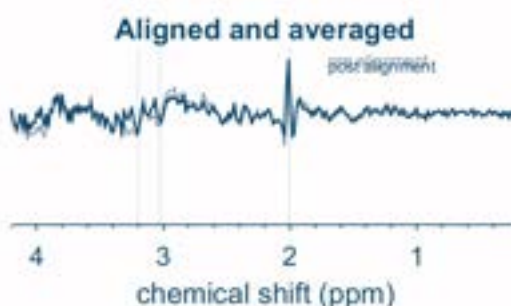
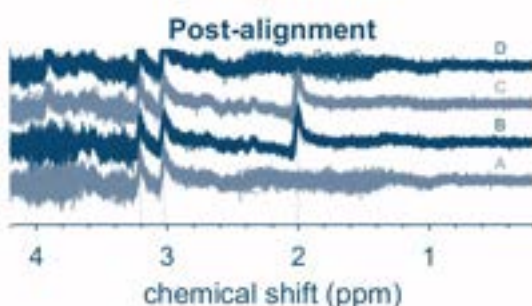
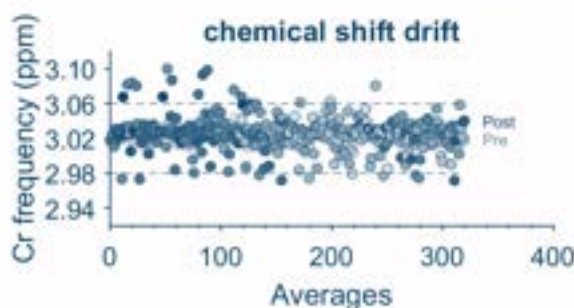
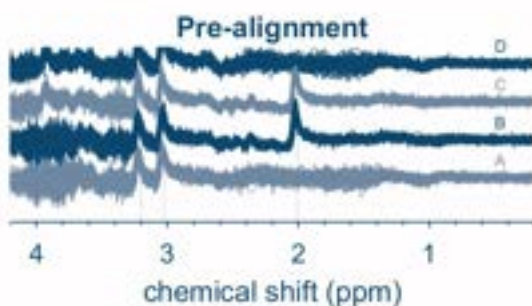
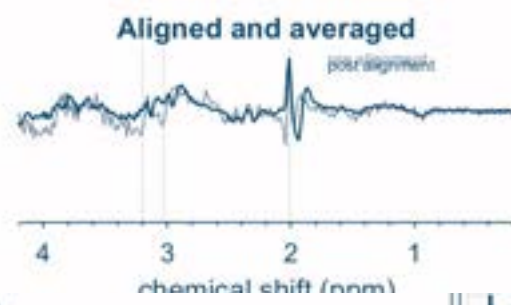
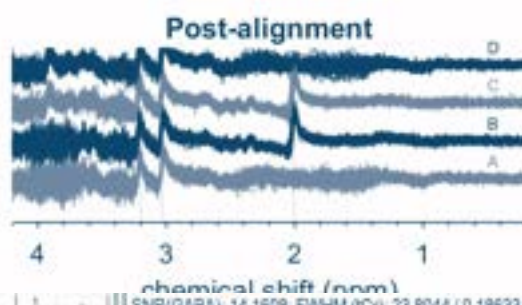
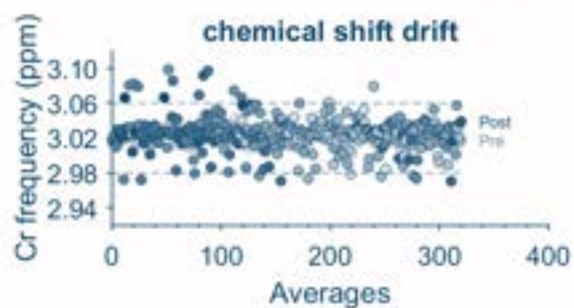
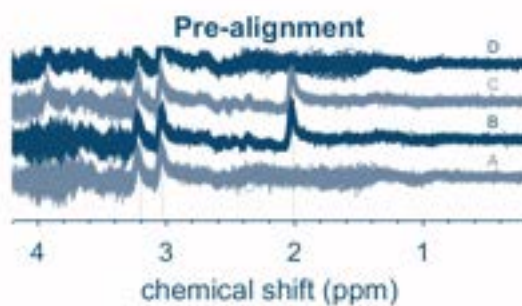
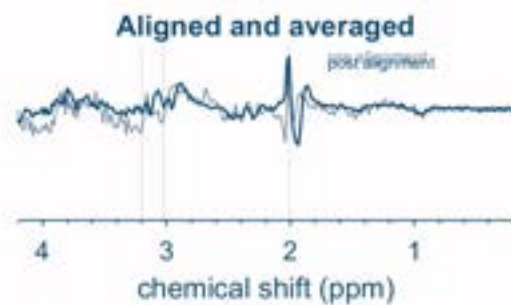
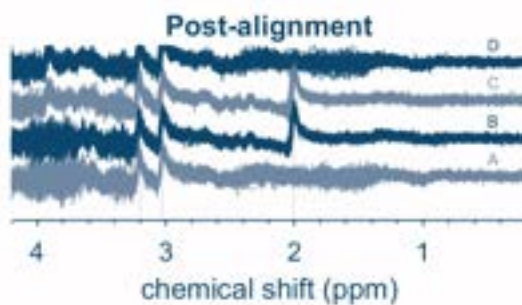
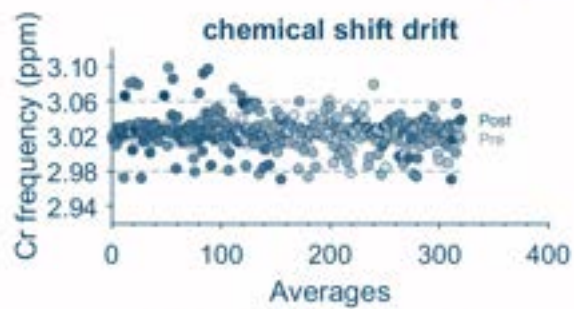
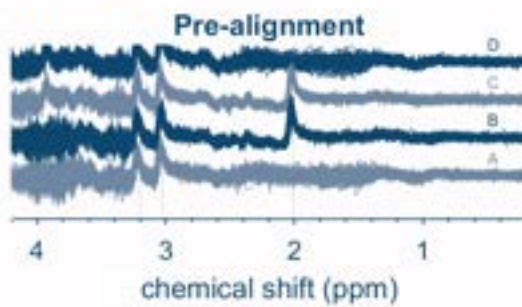


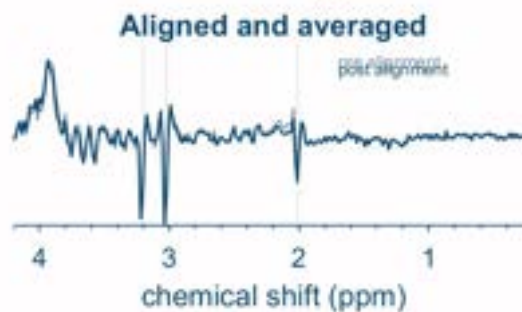
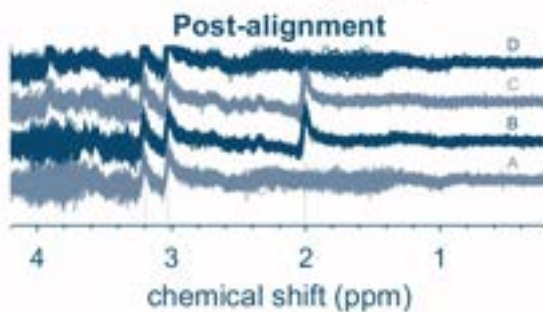
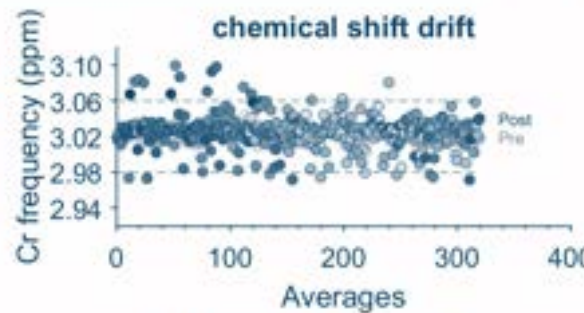
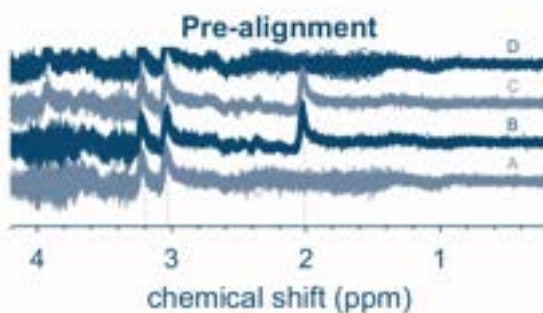
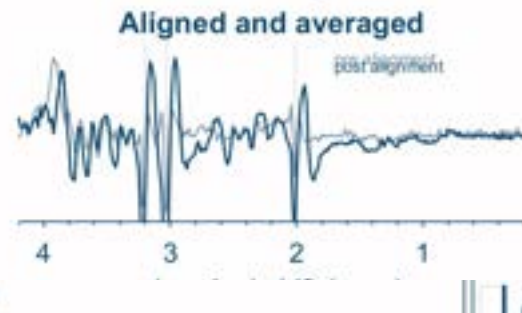
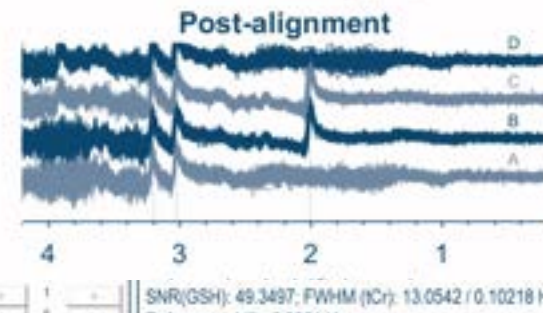
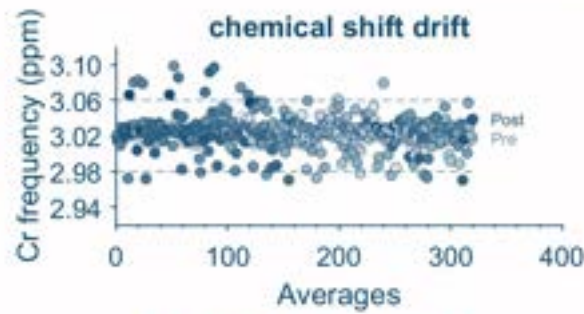
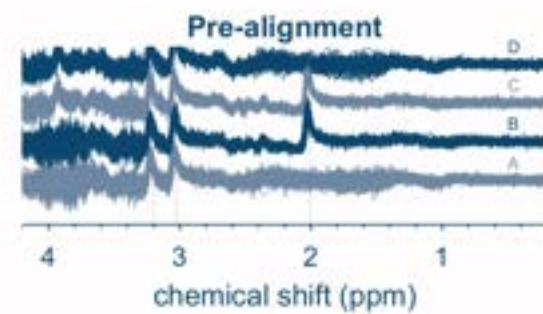
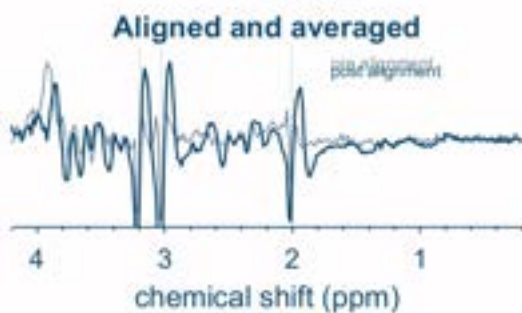
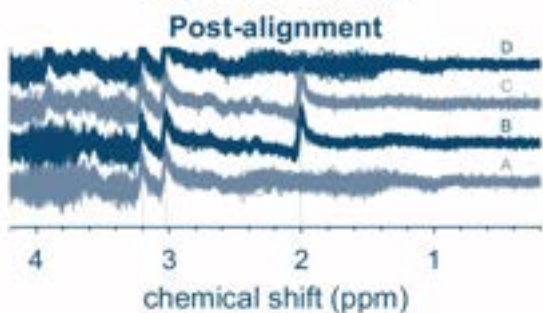
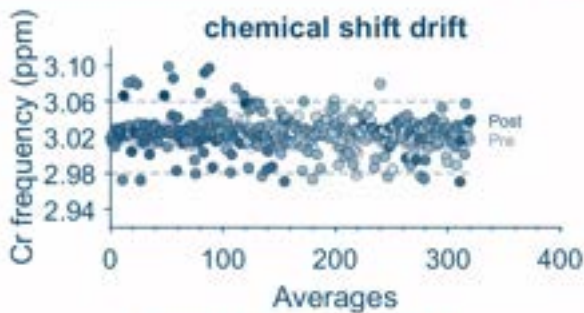
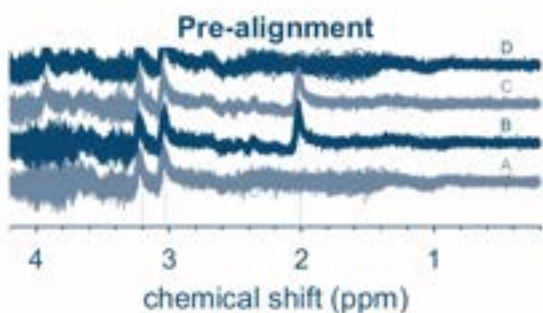
Exp: 1 SNR(Cr): 125.6834, FWHM (Cr): 5.0573 / 0.039566 Hz / ppm  
Scan: 2 Reference shift: -2.8821 Hz

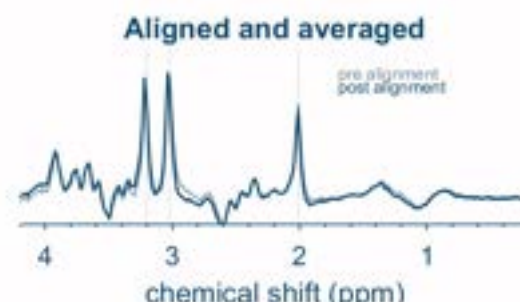
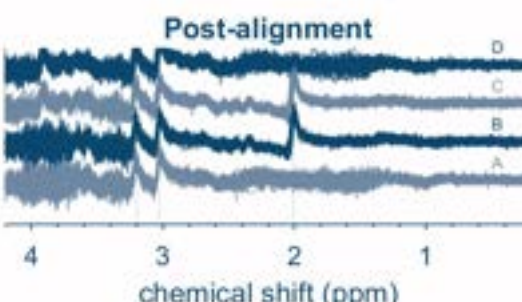
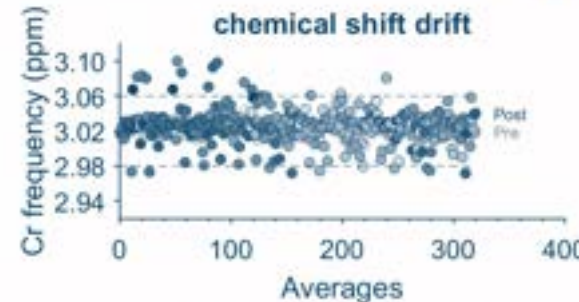
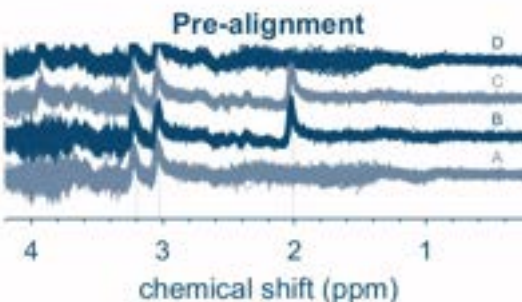
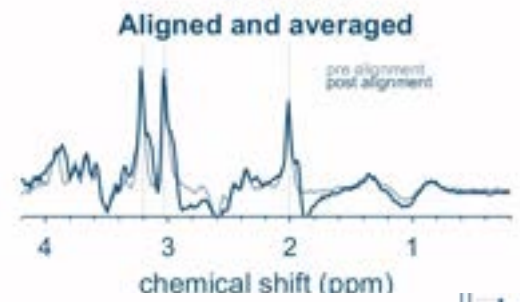
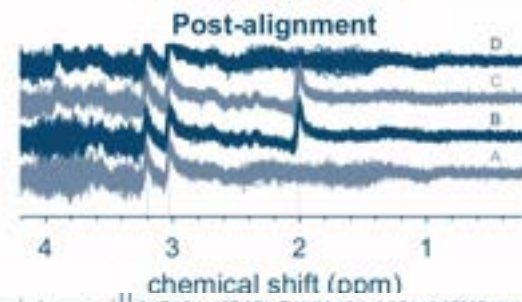
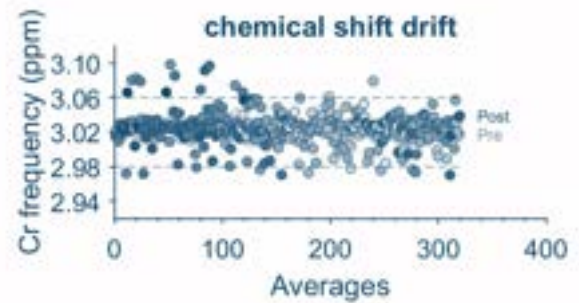
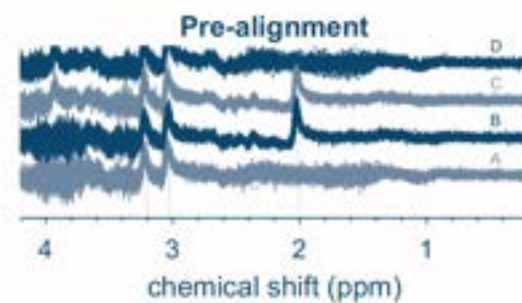
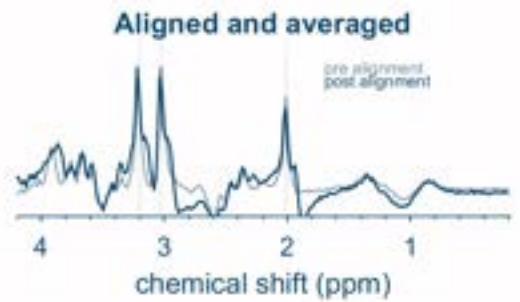
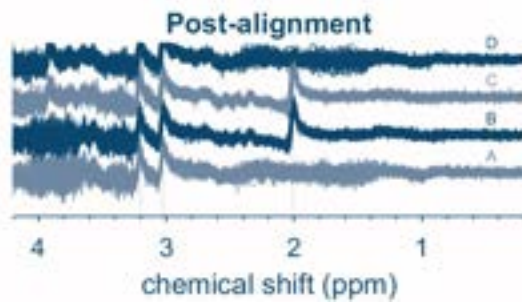
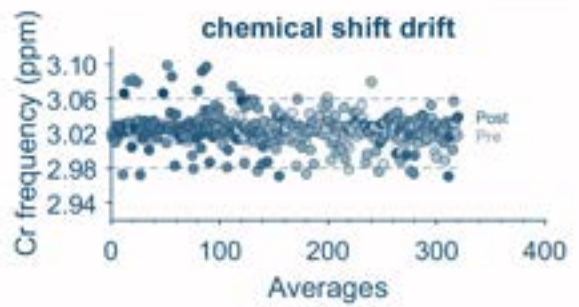
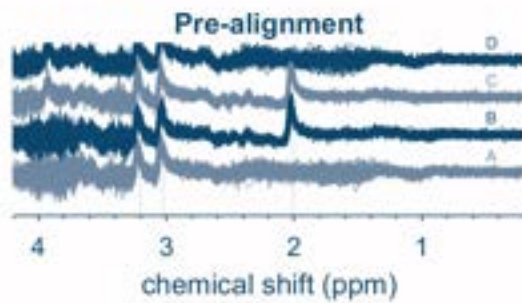






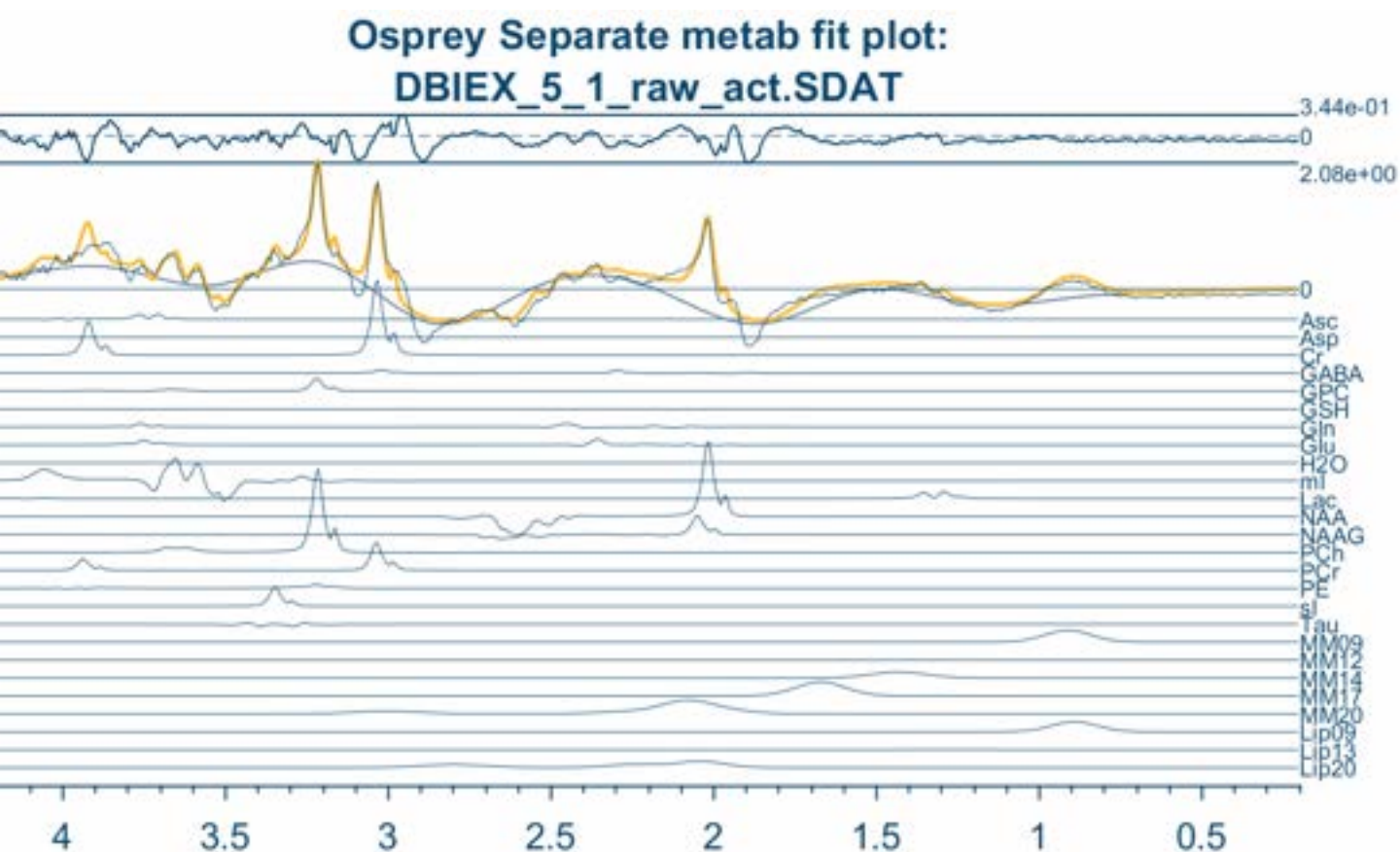






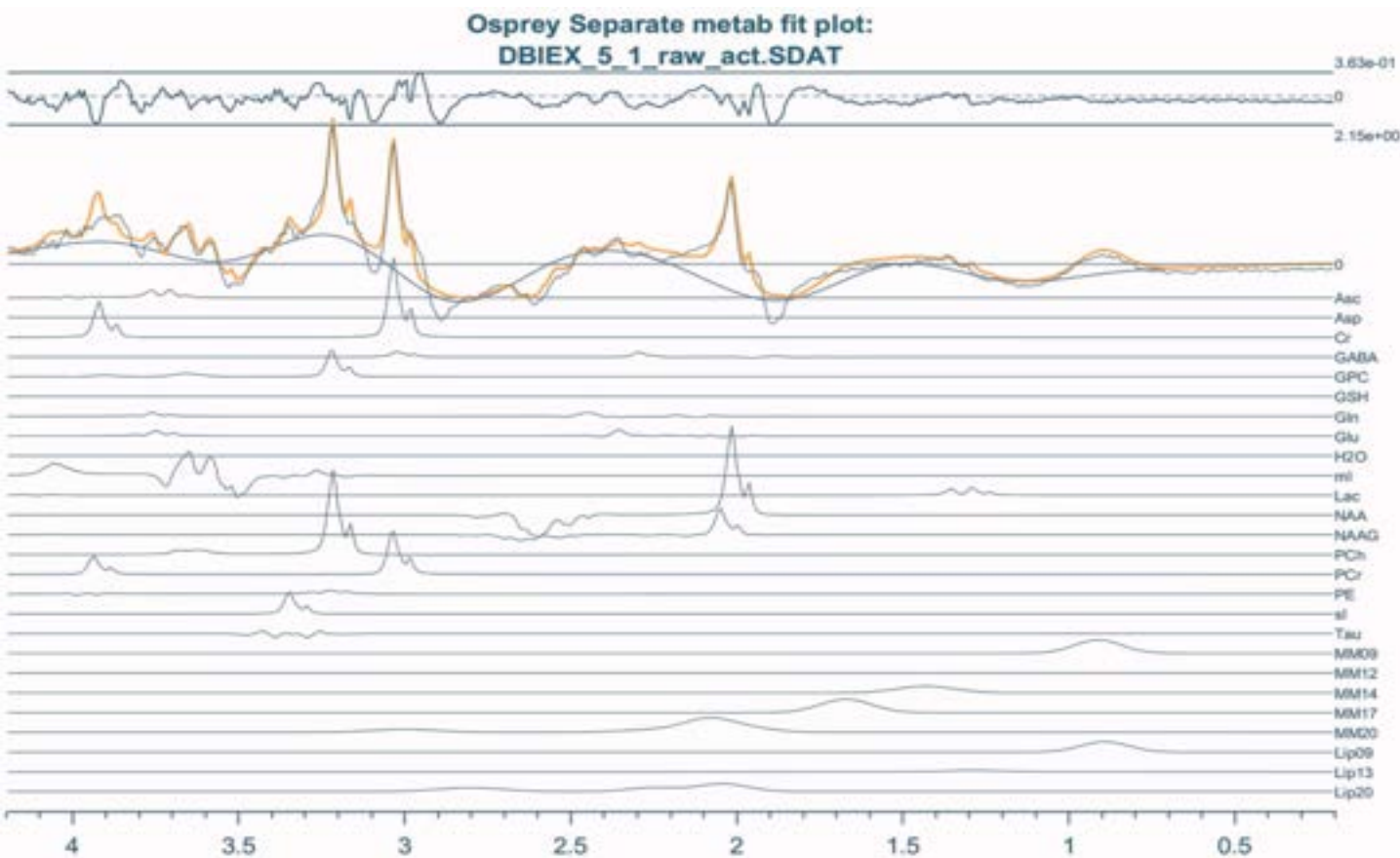


Original parameters  
Same outcome whether you  
specify subspectra fitting as  
L2Norm or not



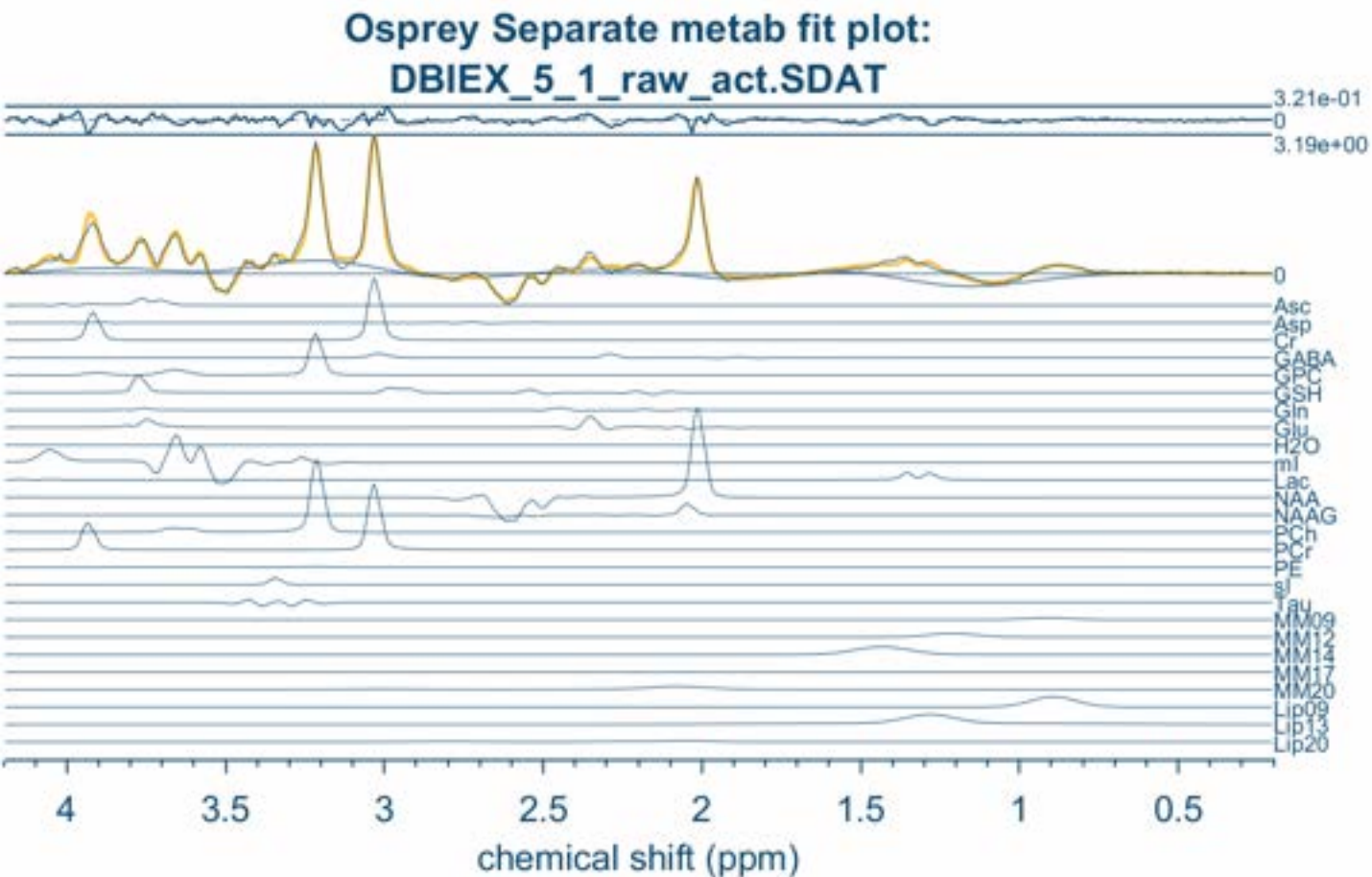
Some odd baseline distortion seemed to be coming from the alignment of subspectras, and seems fixable. Only remaining question is whether these new alternative parameters should be included in each script or only the voxels presenting with this alignment issue

Original parameters  
+ opts.UnstableWater = 1



Not a big difference from the default settings, although in some sub spectra, the SNR was ever-so-slightly better, but this does not seem to be the origin of the spectral quality increase displayed in the next slide

# Alternative parameter for subspectral fitting (L1Norm) & added unstable water option



Out of the single processed spectra, the 3<sup>rd</sup> one seems to benefit the most from these settings. Diff2 and sum spectra also look a lot better, and this is all reflected in this nice LC model output. I already tried and it also worked for the couple of other MPFC voxels that had the same issue. Works well!