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Supporting information for article:

Automatic 3D image registration for nano-resolution chemical mapping using dynchrotron spectro-tomography

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S1. The detail of 3D registration code

We have deposited the code to a Github repository. The link is as follows: *https://github.com/hi-ZhangJin/3D_registration/tree/master*.
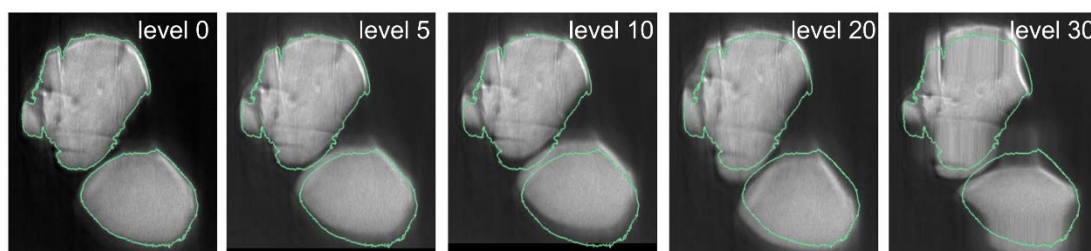

Figure S1 A 2D virtual slice through the selected tomogram with different degrees of deformation. The green line is the contour of the original images.
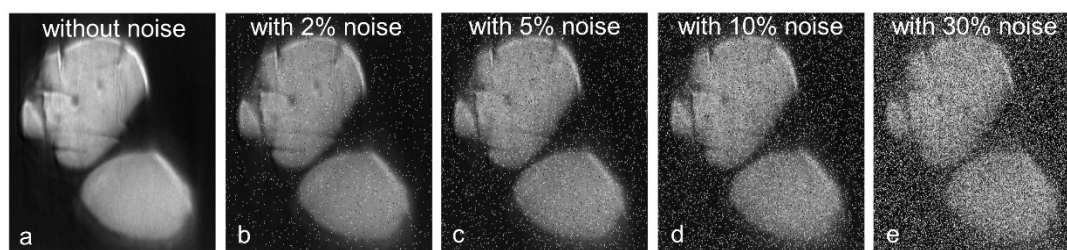

Figure S2 The 2D projections of applying varied degrees of noise (salt & pepper). Panels (a) to (e) are without noise (0%), 2%, 5%, 10% and 30% noise, respectively.
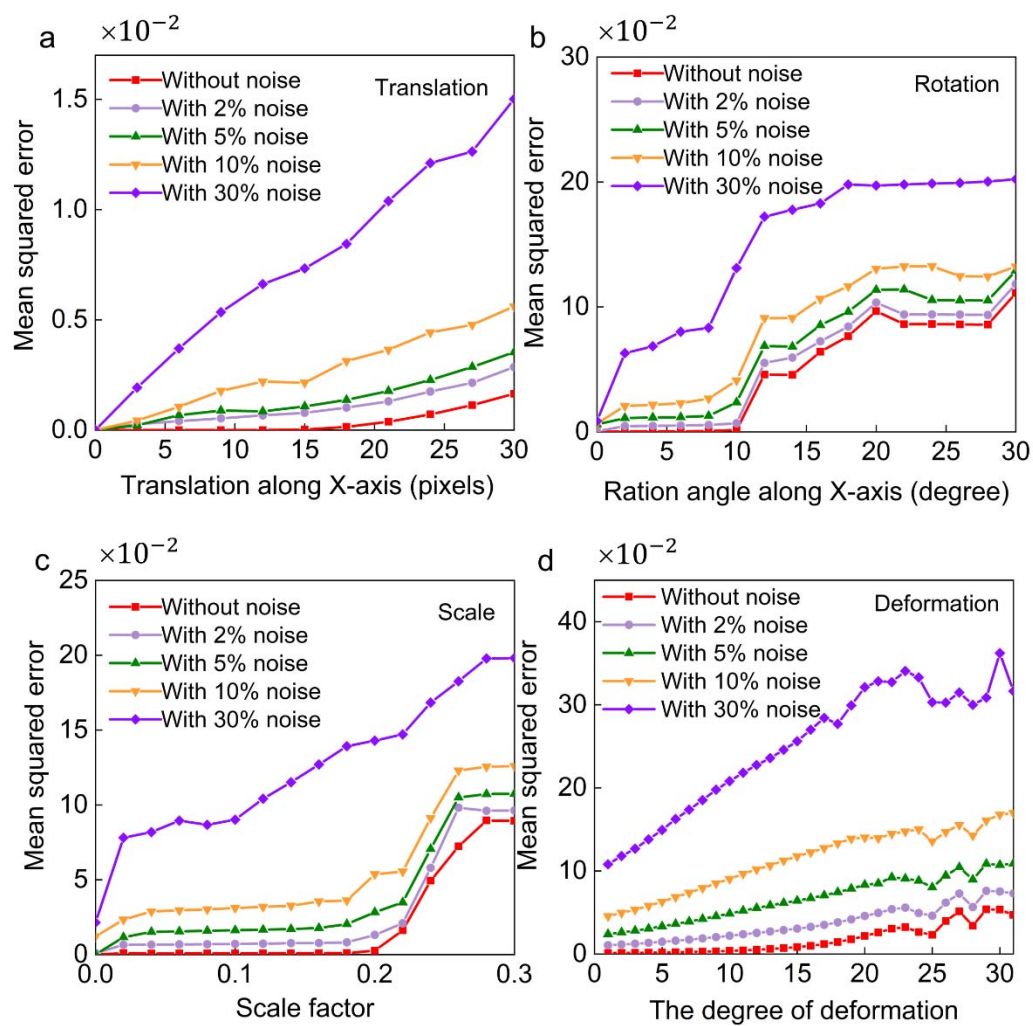
Figure S3 The mean squared error (MSE) plot of different kinds of transformation with various degree of noise. Panel (a) to (d) are translation, rotation, scale and deformation, respectively.