

## *Supplementary Materials*

# **In-situ synchrotron X-ray micro-diffraction investigation of elastic strains in laminated Ti-Al composites**

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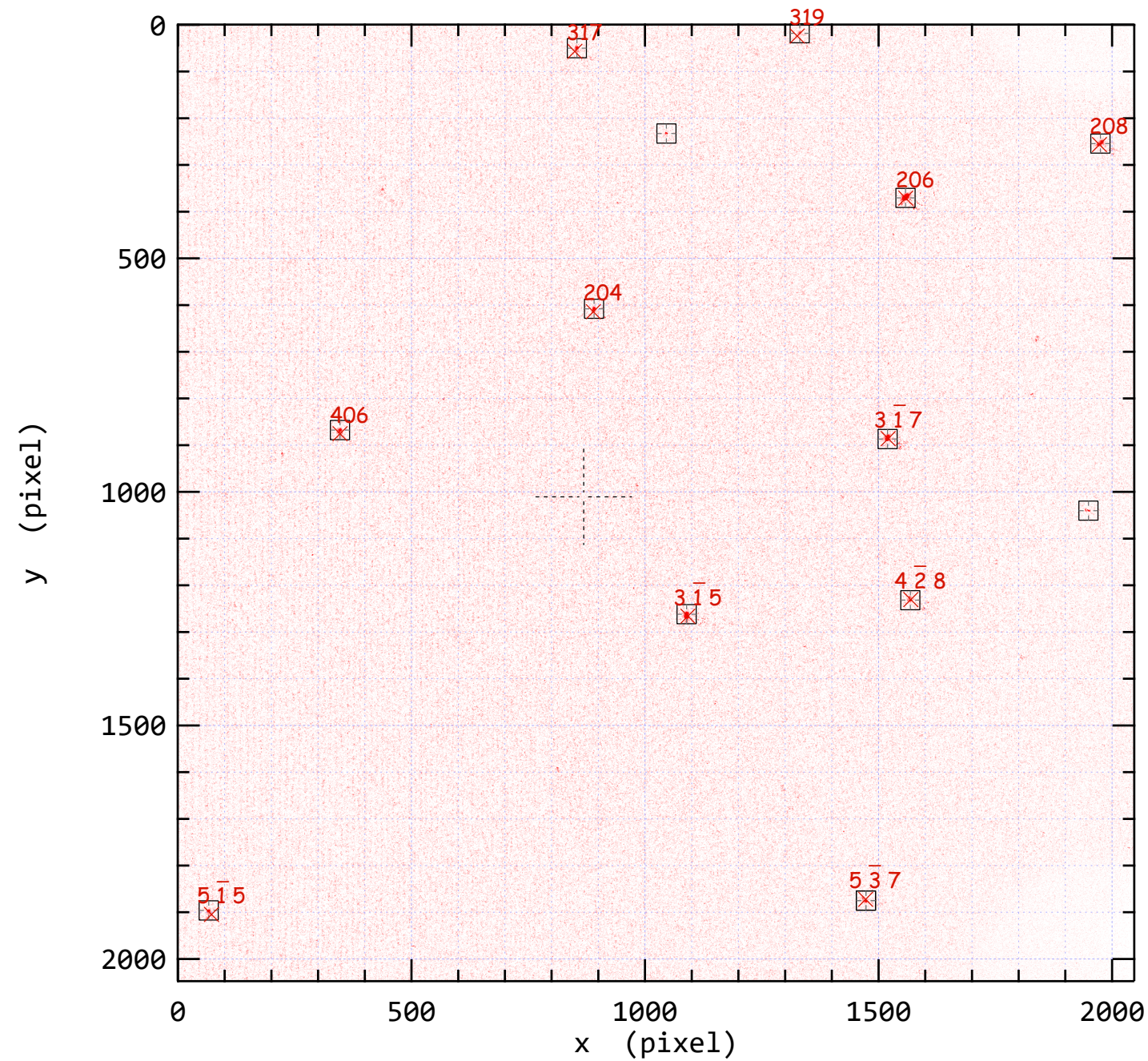


Figure S1. Example of depth-resolved diffraction pattern from the Al layer before tensile loading.



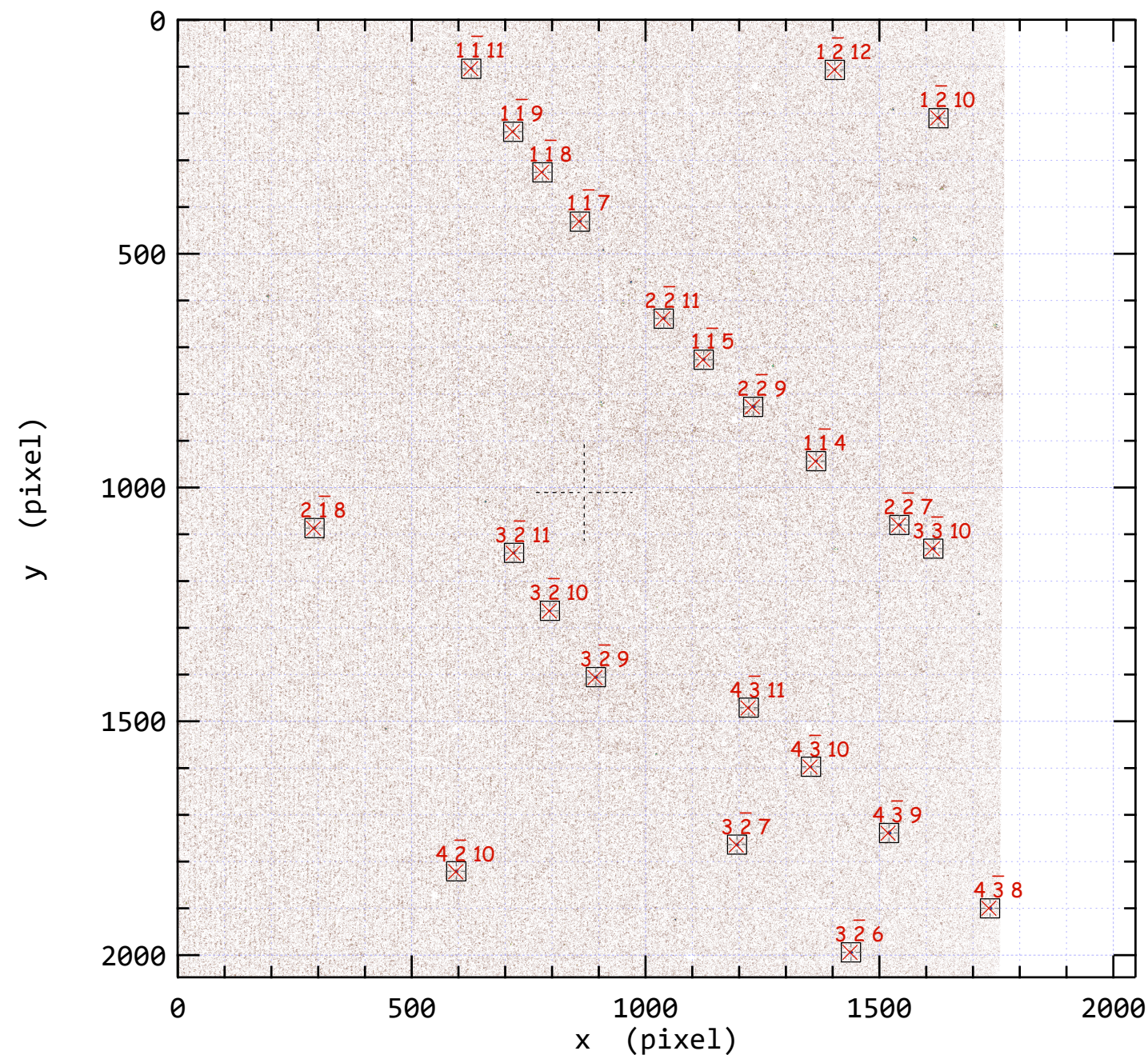


Figure S2. Example of depth-resolved diffraction pattern from an Ti grain below the Al layer before tensile loading.

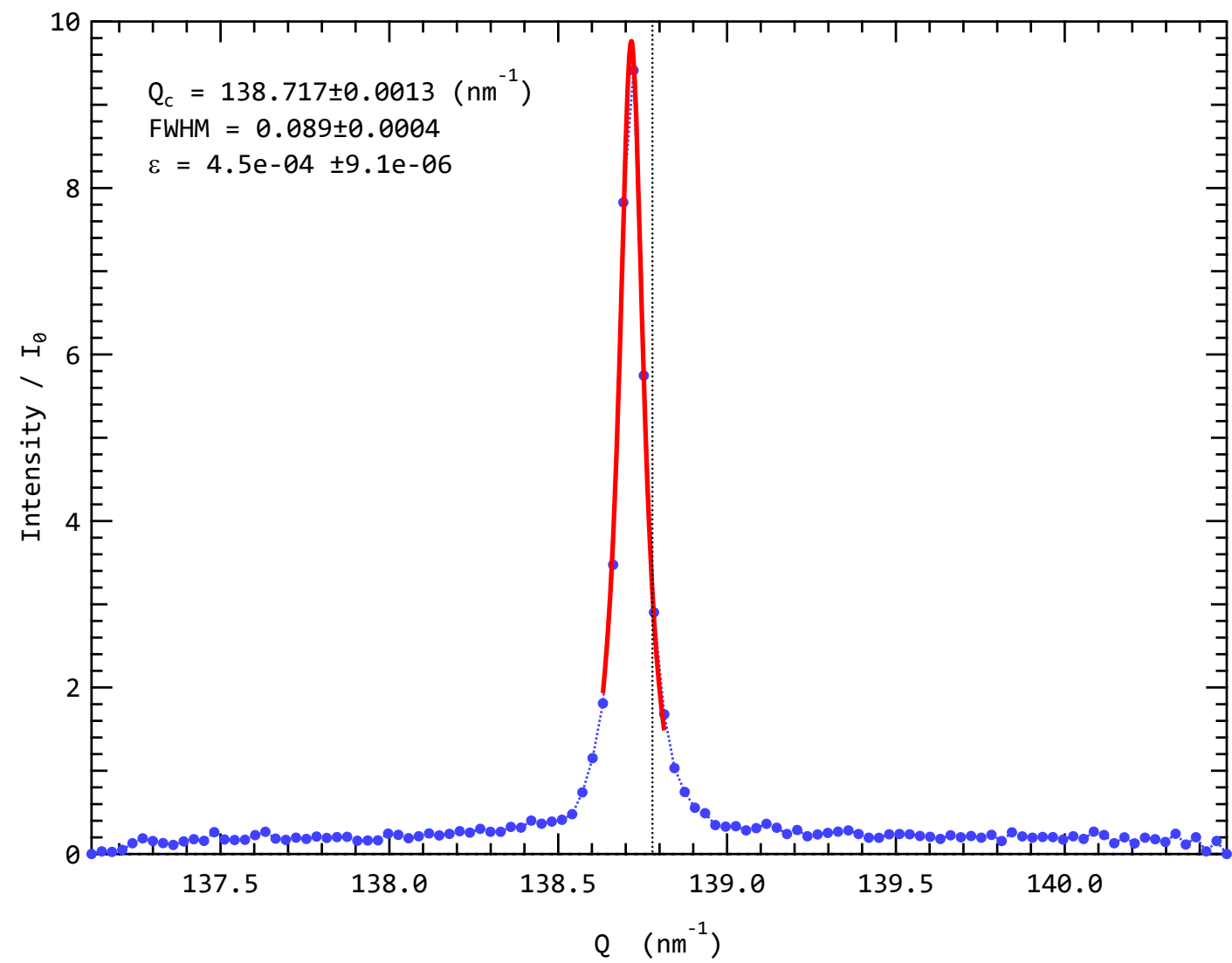


Figure S3. Example of diffraction intensity profile (fitted by a Gaussian function) of the energy scan in an Al voxel before tensile loading.

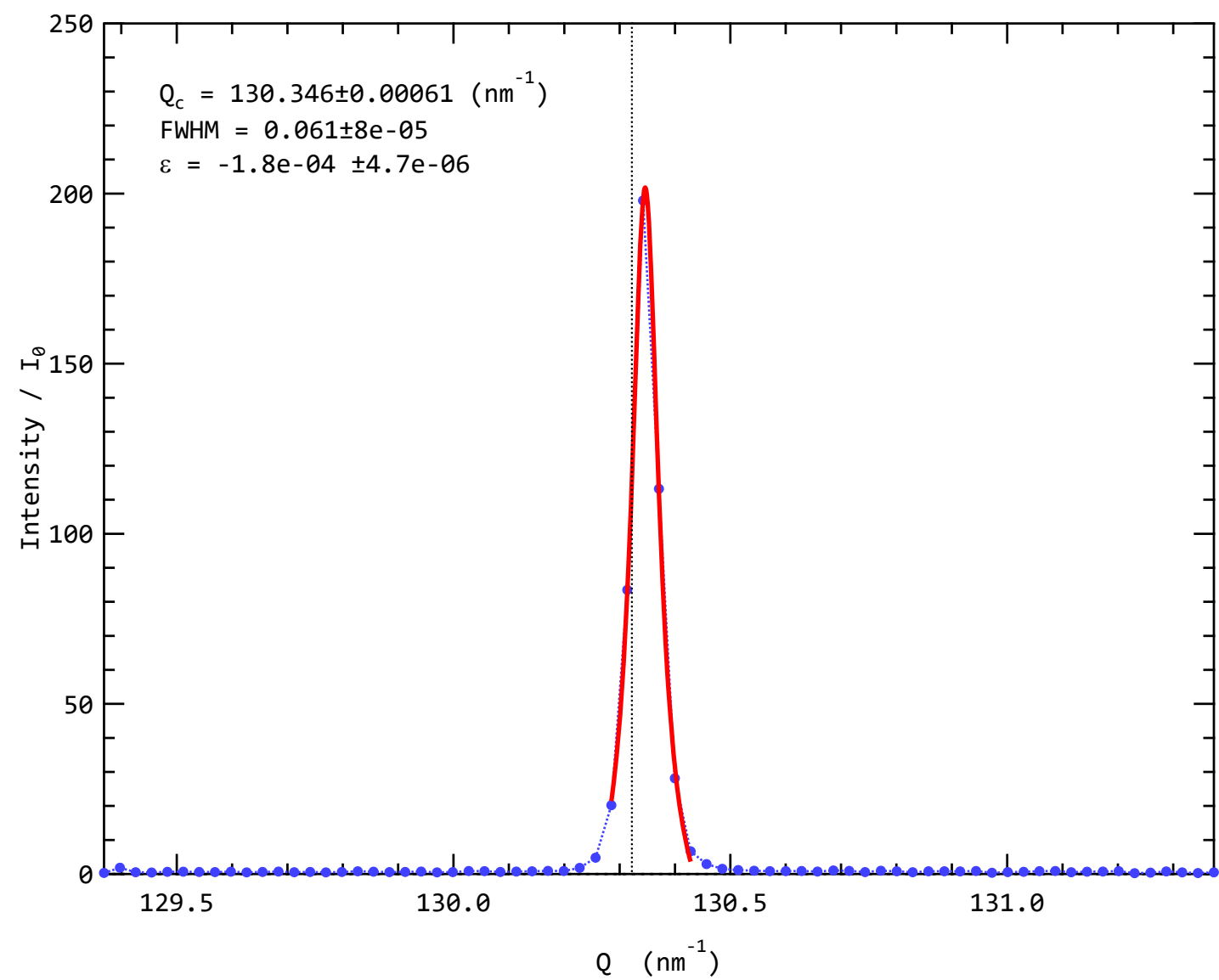


Figure S4. Example of diffraction intensity profile (fitted by a Gaussian function) of the energy scan in a Ti voxel before tensile loading.