

Supplementary Information for

Order-disorder Peierls instability in the kagome metal (Cs,Rb)V₃Sb₅

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Diffuse scattering (DS) of RbV₃Sb₅.

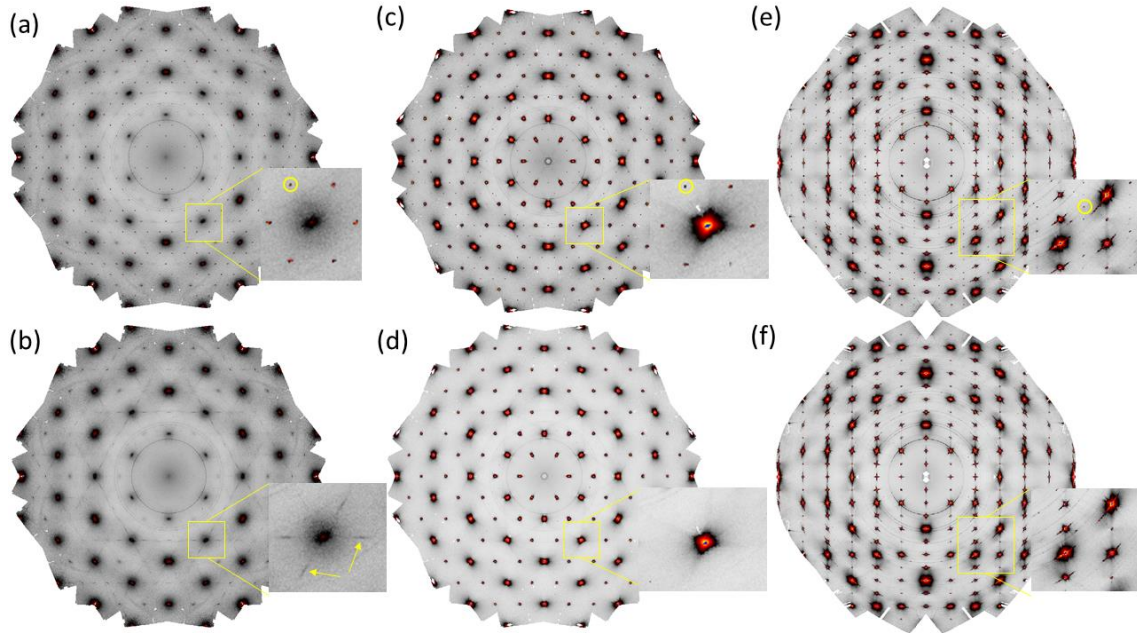


Figure 1. Diffuse scattering at 100 K and 110 K for RbV₃Sb₅ for the (a) (h k 0.5) plane, showing the CDW Bragg reflections (weak spots highlighted within the yellow circle in the zoomed in area) and the precursor of the 3D CDW, marked with arrows. (b) and (c) (h k 0) and (h 0 l) planes, respectively (no precursor).

Phonon dispersion in CsV₃Sb₅.

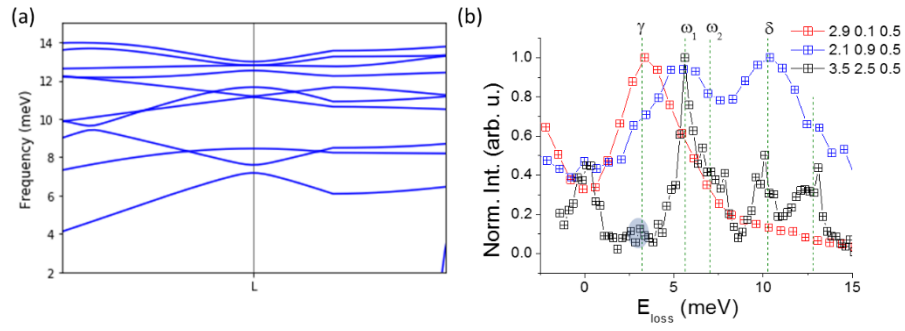


Figure 2: (a) Zoom-in of the L point phonon dispersion of CsV₃Sb₅ calculated by Density Functional Perturbation Theory. (b) Identification of the phonon modes.