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Supporting information for article:

Two-step GISAXS characterization of NiSi₂ nanoplates and Ni nanocrystals embedded in a silicon wafer covered with a silica thin film

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S1. Additional GISAXS patterns recorded for different azimuthal angles

We have recorded six additional 2D GISAXS patterns for different azimuthal angles ϕ ranging from -8.15° up to 9.85° . Note that $\phi = 0^\circ$ corresponds to a perfect alignment of the Si[110] direction with the projection of the incoming X-ray beam on the wafer surface, i. e. on the Si(001) crystallographic plane. All these experimental patterns are shown in Fig. S1(a) together with the pattern corresponding to $\phi = 0.85^\circ$ previously used for fitting Eq. 2 to the experimental patterns which led to the determinations of the size parameters mentioned in the article.

The set of patterns shown in Fig. S1(b) are the simulated 2D-GISAXS patterns corresponding to all azimuthal angles. The calculated GISAXS pattern for $\phi = 0.85^\circ$ was determined by fitting Eq. 2 to the experimental 2D pattern (as reported in the article), while the six additional simulated 2D-GISAXS patterns were determined by applying Eq. 2 using the same structural parameters as those previously derived from the fitting of Eq. 2 for $\phi = 0.85^\circ$. A visual comparison indicates that all experimental patterns shown in Fig. S1(a) agree well with the simulated patterns displayed in Fig. S1(b) for the different azimuthal angles, thus demonstrating the good quality of the modeled GISAXS function and the consistency of the fitting procedure.

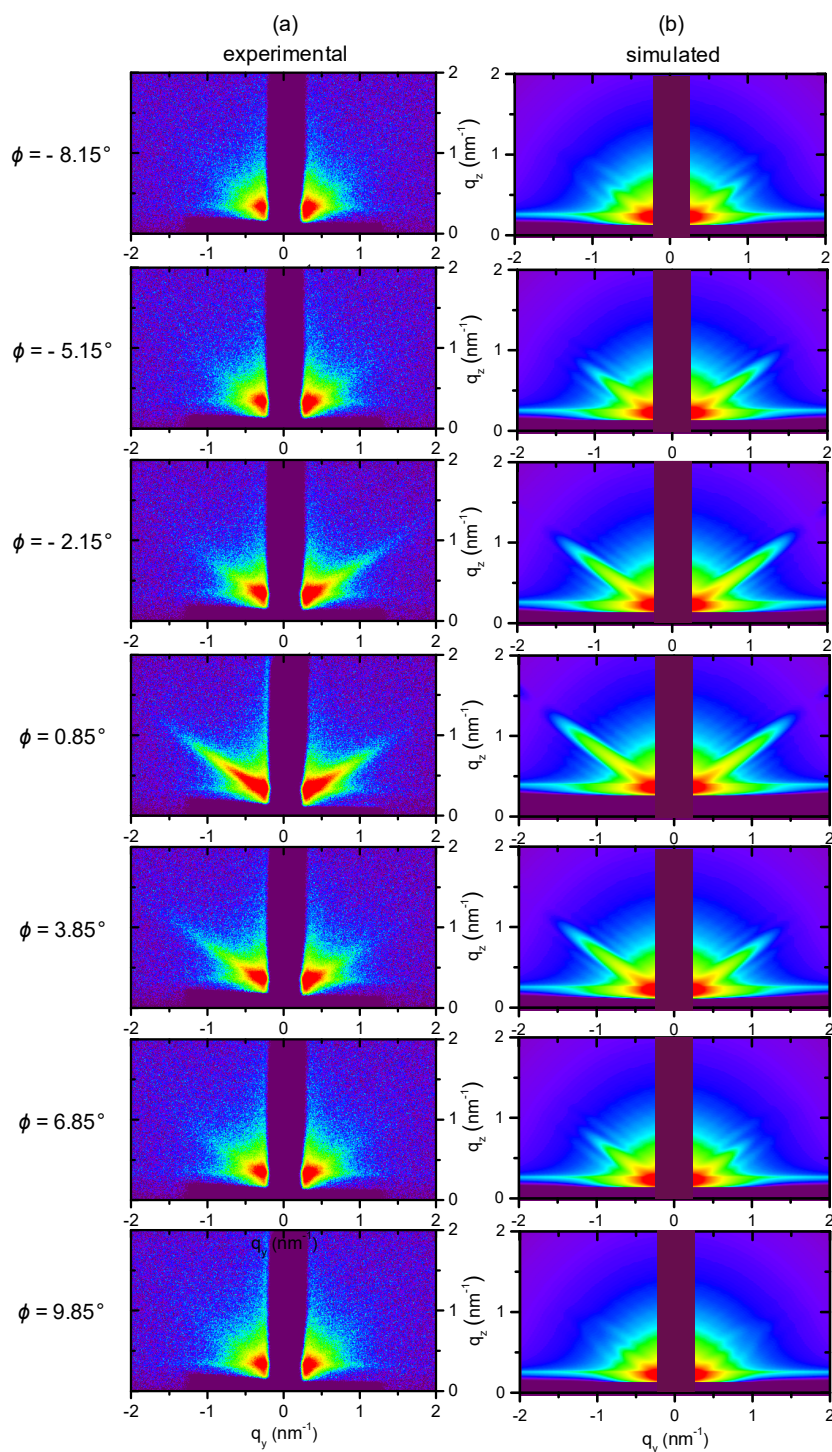


Figure S1 (a) Experimental 2D-GISAXS patterns for an azimuthal angle $\phi = 0.85^\circ$ and for six other (indicated) azimuthal angles. Each GISAXS pattern corresponds to 40 min of exposure time. (b) 2D-GISAXS patterns simulated by Eq. 2 for all selected azimuthal angles.