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# Study on the reflectivity properties of spherically bent analyser crystals. Corrigendum

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Corrections to the paper by Honkanen *et al.* (2014). [*J. Synchrotron Rad.* **21**, 104–110] are made.

After the publication of our manuscript (Honkanen *et al.*, 2014), we have learned of the presence of certain shortcomings in the computation of the theoretical reflectivity curves:

(i) The largest aperture used in the measurements of the reflectivity curves was 100 mm (*i.e.* full analyser) instead of 86 mm.

(ii) The approximation used for the deviation parameter in the one-dimensional Takagi–Taupin equation was not sufficiently accurate near the backscattering, affecting the shapes of the curves on the right-hand side.

(iii) The incident bandwidth of the used (+,−,−,+) monochromator configuration is not modelled well enough by a Gaussian function.

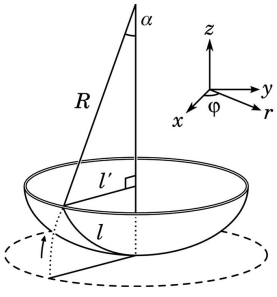
While not affecting the main conclusions of our work, these errors do alter the shape of the theoretical predictions and can be improved upon. They were addressed as follows:

(i) The incorrect aperture size was changed from 86 mm to 100 mm.

(ii) The depth-depended Takagi–Taupin curves were computed with the Python code presented by Honkanen *et al.* (2016) that uses a different formulation for the deviation parameter.

(iii) The incident bandwidth was computed by combining the single-crystal reflectivity curves of the monochromator crystals.

The corrected theoretical curves in conjunction with the measured ones are presented in Fig. 1 and the agreement of the experiment and theory is improved from the original one.



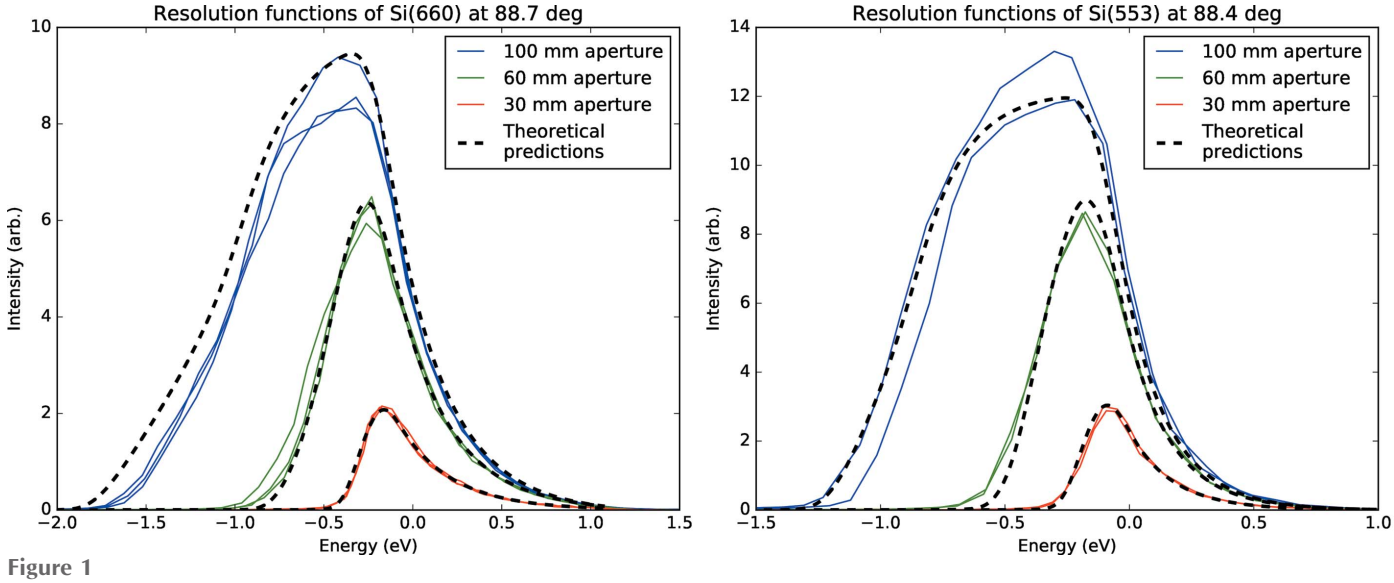



**Figure 1**
Corrected predictions and measured reflectivity curves of Si(660) and Si(553) analysers. Three different curves are shown for each analyser corresponding to different mask aperture sizes.

## References

Honkanen, A.-P., Monaco, G. & Huotari, S. (2016). *J. Appl. Cryst.* **49**, 1284–1289.

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