

### Supporting Information

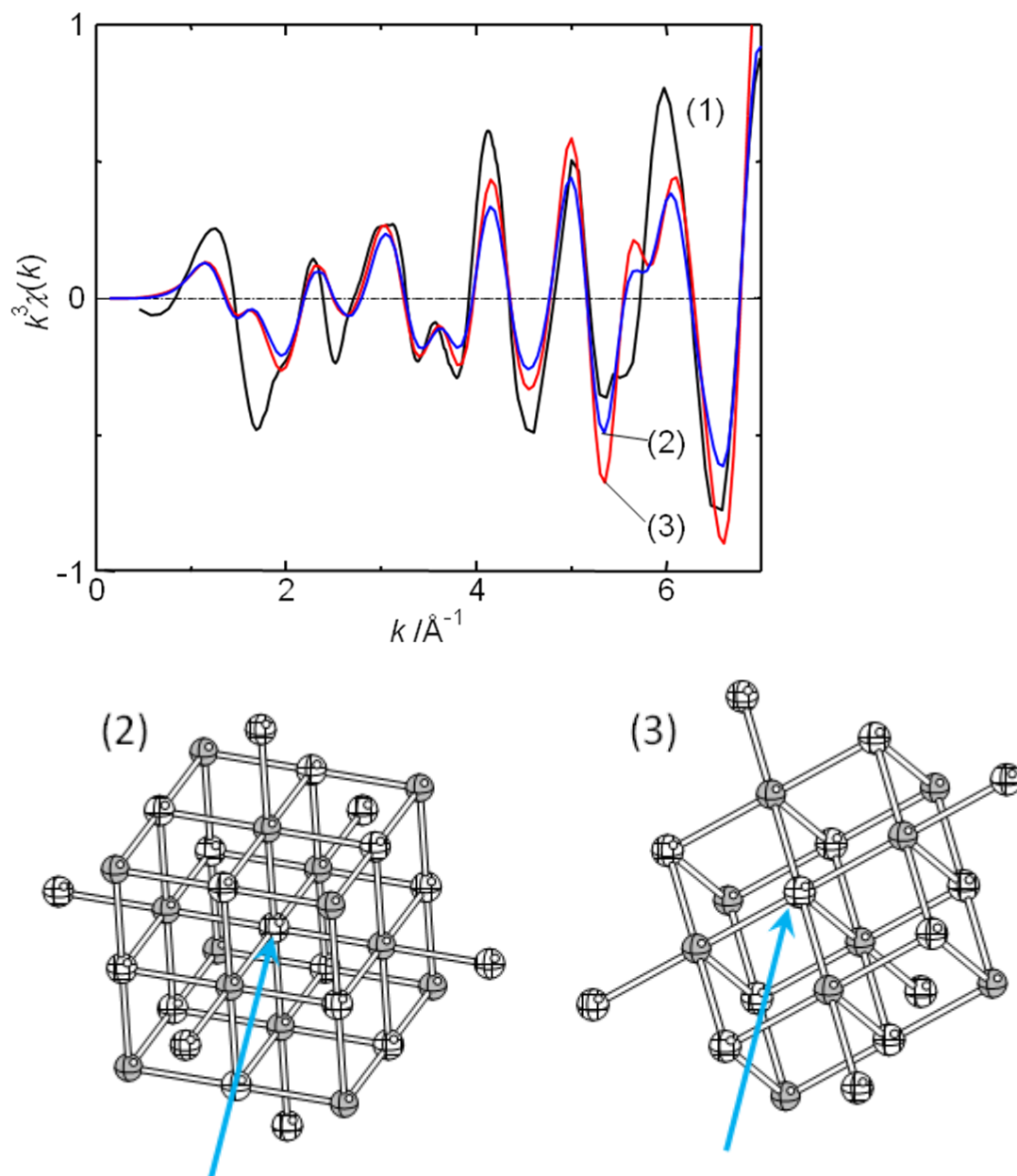


Figure S1 XAFS spectrum of RbBr crystal powder (1) and simulated spectra for Br<sup>-</sup> in the anhydrous RbBr crystal; (2) Br<sup>-</sup> on the surface of the crystal and (3) in the interior of the crystal. Models for (2) and (3) are also depicted with blue arrows indicating absorbing atoms.

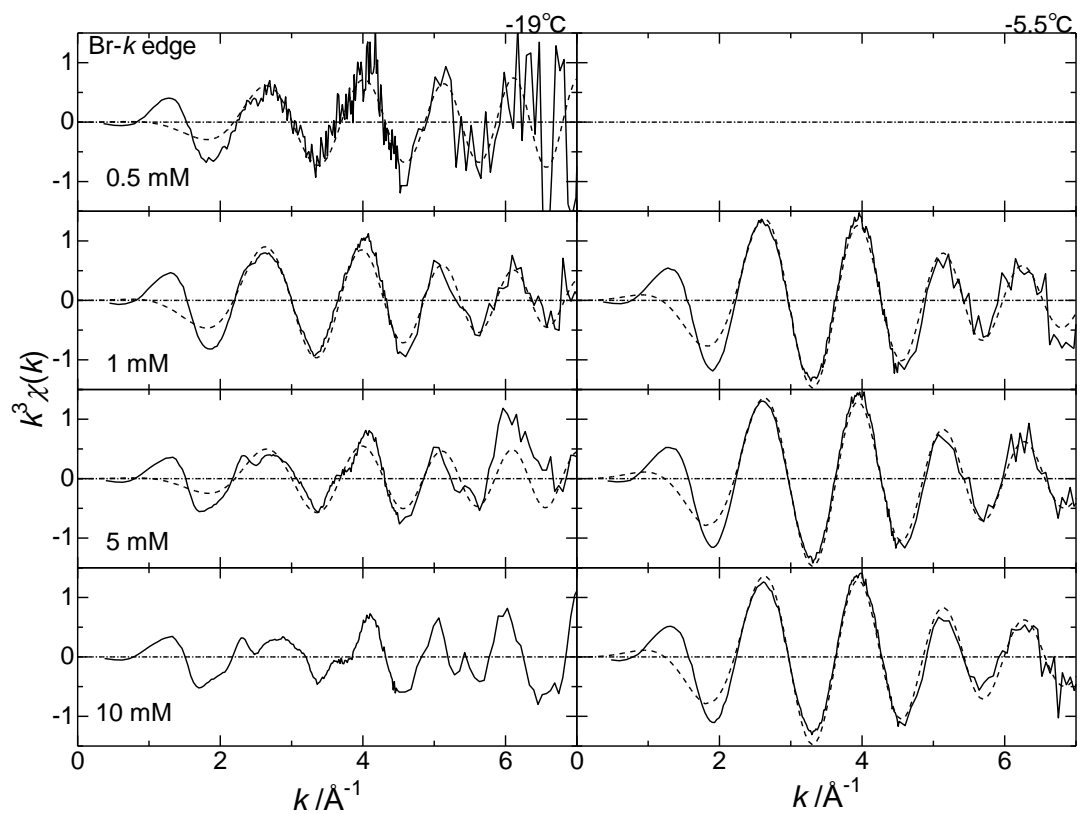


Figure S2 XAFS spectra at the Br-K edge and results of usual curve-fitting with the XAFS parameters using Br-O as the model

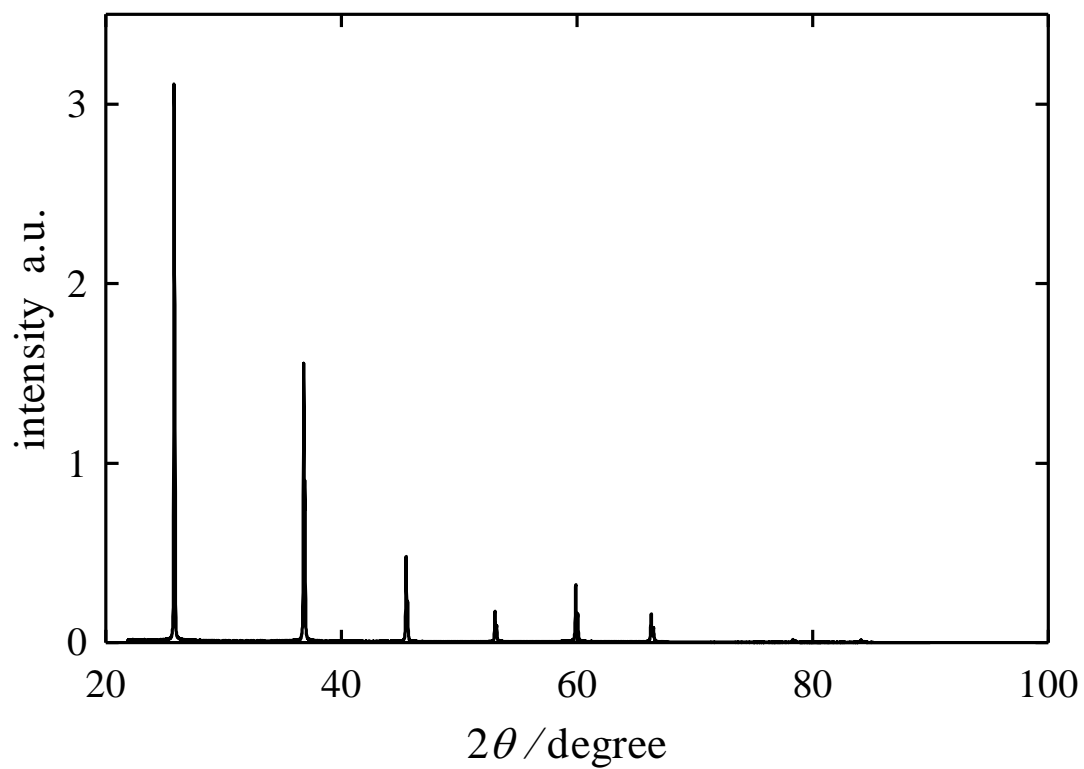


Figure S3 X-ray diffraction from authentic anhydrous RbBr crystal