

Feisel et al. (2022) The effect of halogens (F, Cl) on the near-liquidus crystallinity of a hydrous trachyte melt, *American Mineralogist*

Supplementary Figures

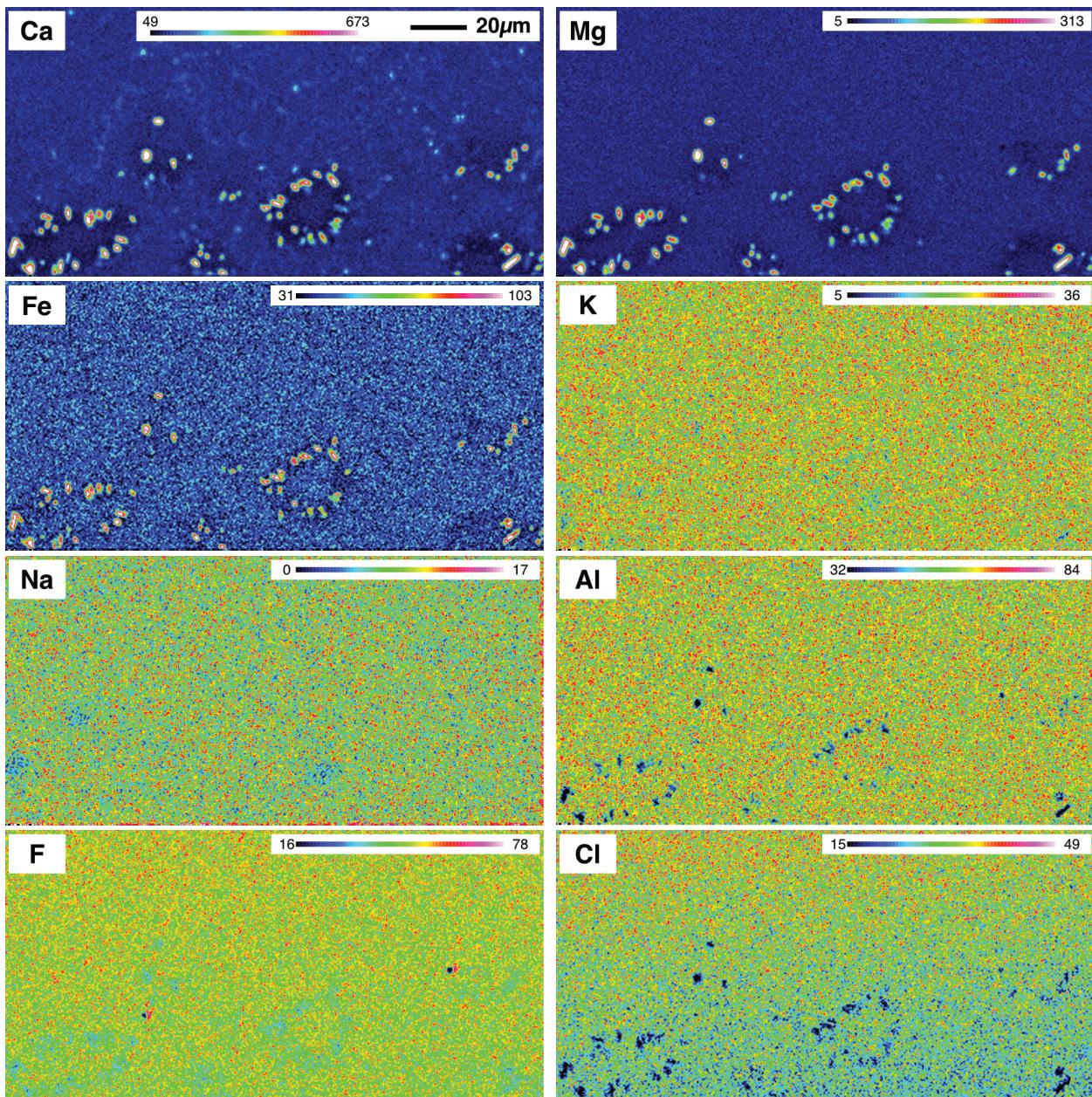


Figure S1: Compositional maps of a representative area of sample 18X showing all analyzed elements. Crystals are significantly enriched in Ca, Mg and Fe. Units of intensity correspond to counts (cts).

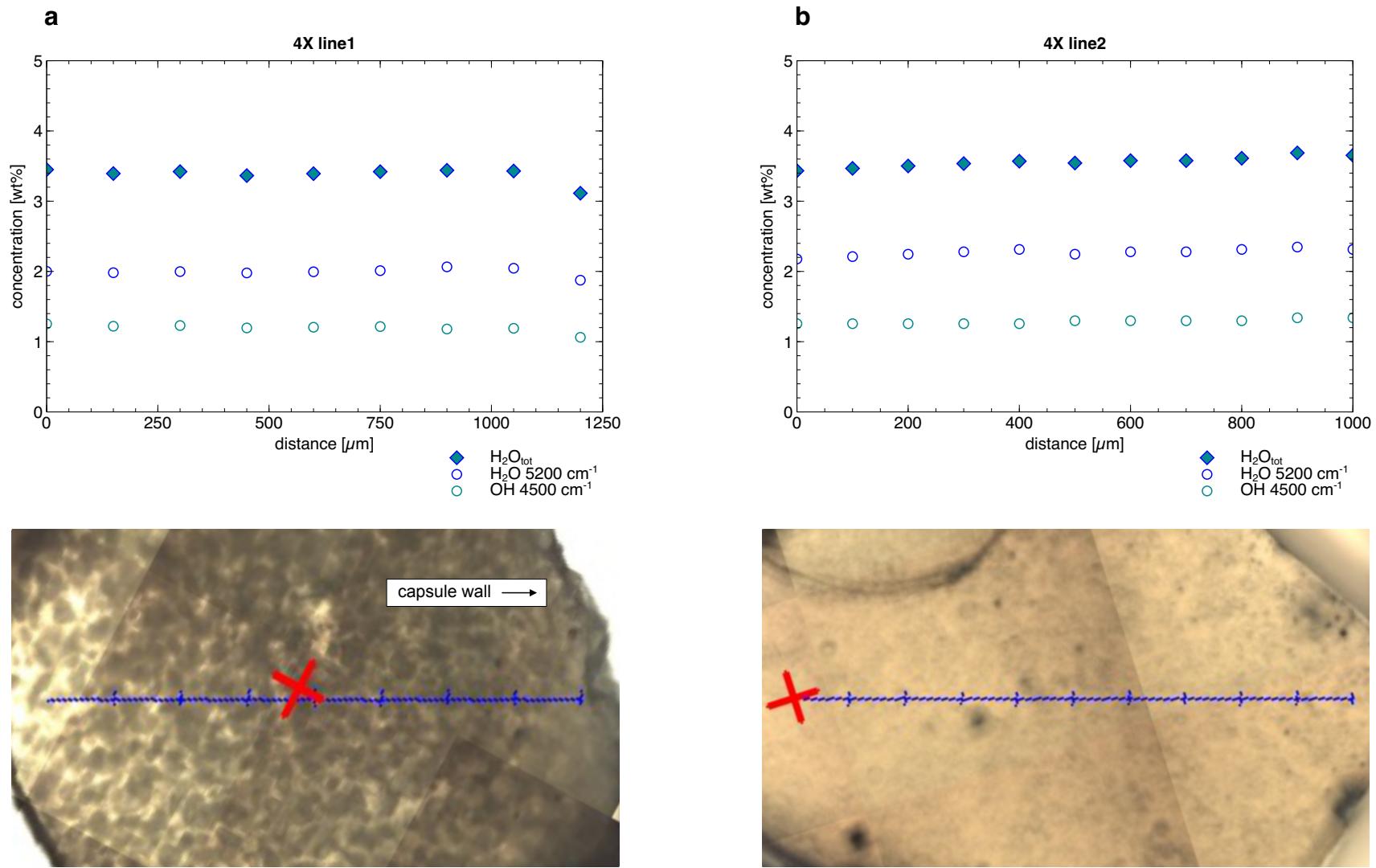


Figure S2A: Results of FTIR analyses of sample 4X. **(a)** Line scan of crystal-bearing area. **(b)** Line scan of a crystal-free area.

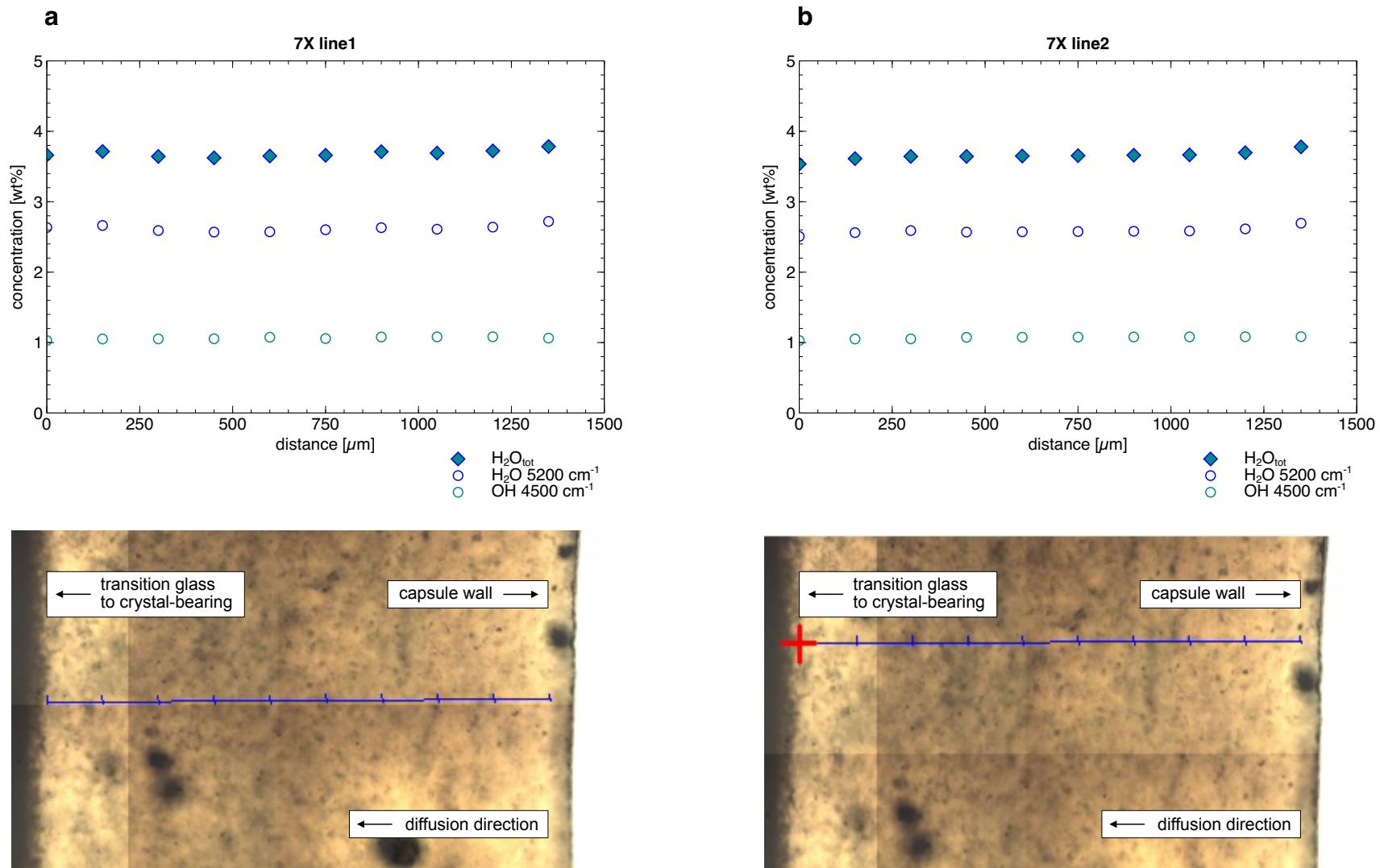


Figure S2B: Results of FTIR analyses of sample 7X. **(a) + (b)** Line scans of crystal-free area acquired parallel to the diffusion direction.

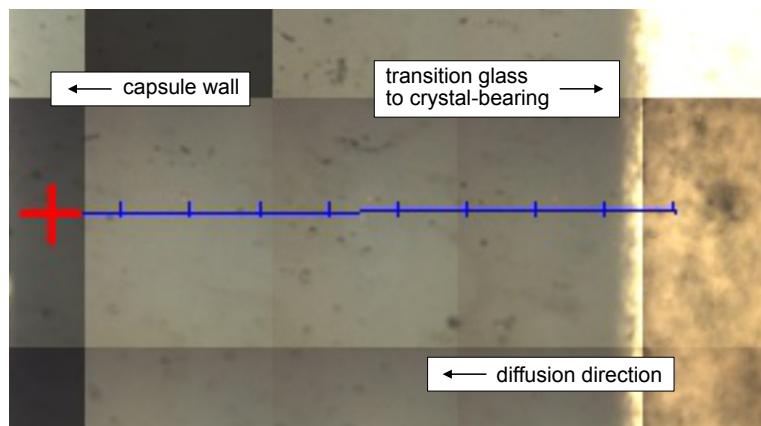
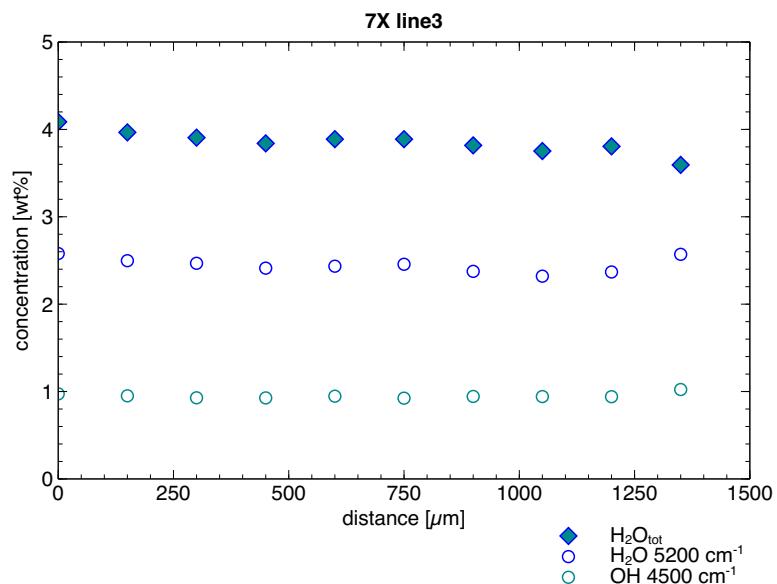


Figure S2C: Results of FTIR analyses of sample 7X. Line scan of crystal-bearing area acquired parallel to the diffusion direction.

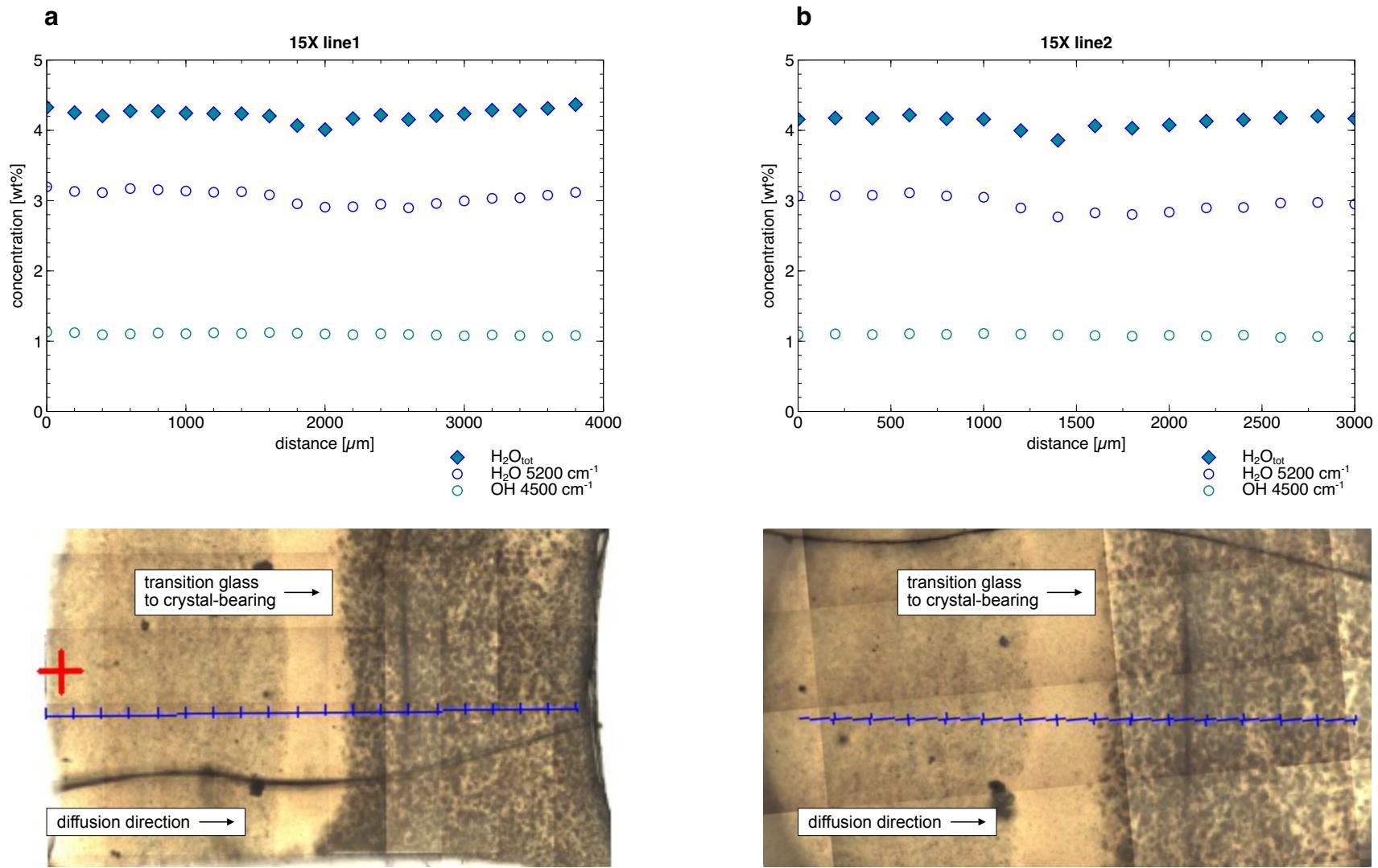


Figure S2D: Results of FTIR analyses of sample 15X. **(a) + (b)** Line scans across the whole sample from crystal-free (bubble-bearing) to crystal-bearing areas. Scans are acquired parallel to the diffusion direction.

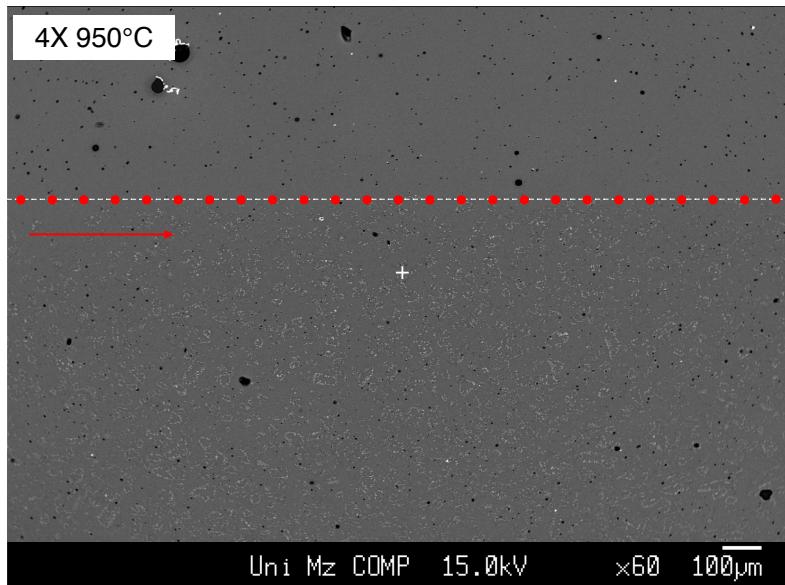
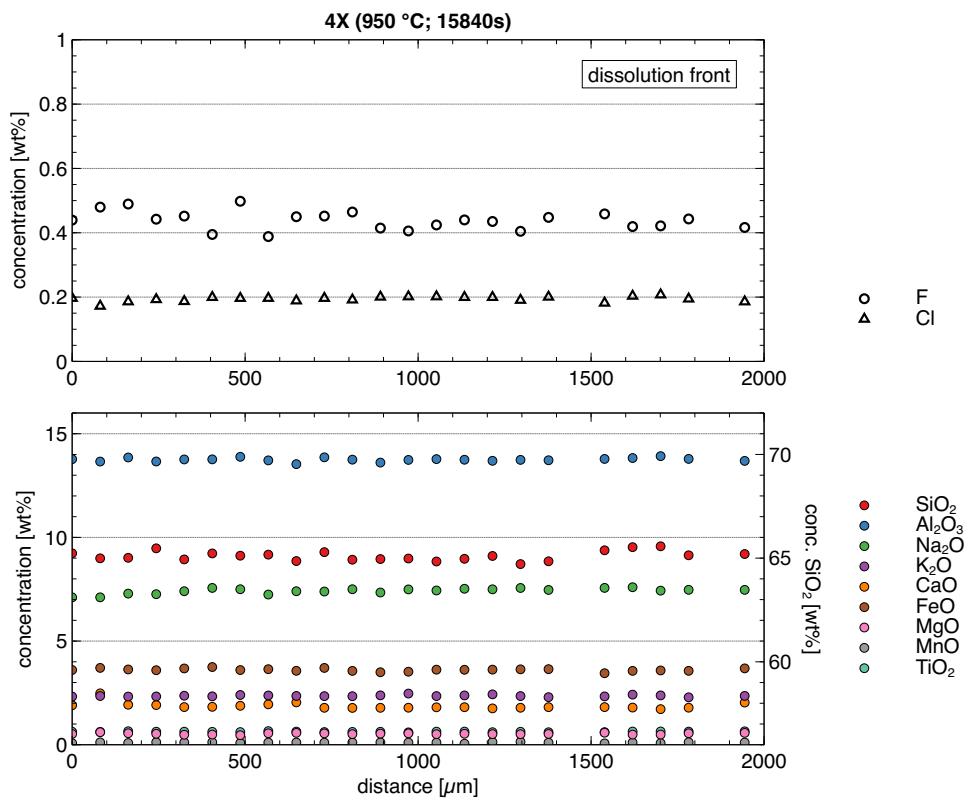


Figure S3A: EPMA analysis along the interface between crystal-bearing and -free glass in sample 4X. Red dots correspond to analysis points. The profile was analyzed from left to right.

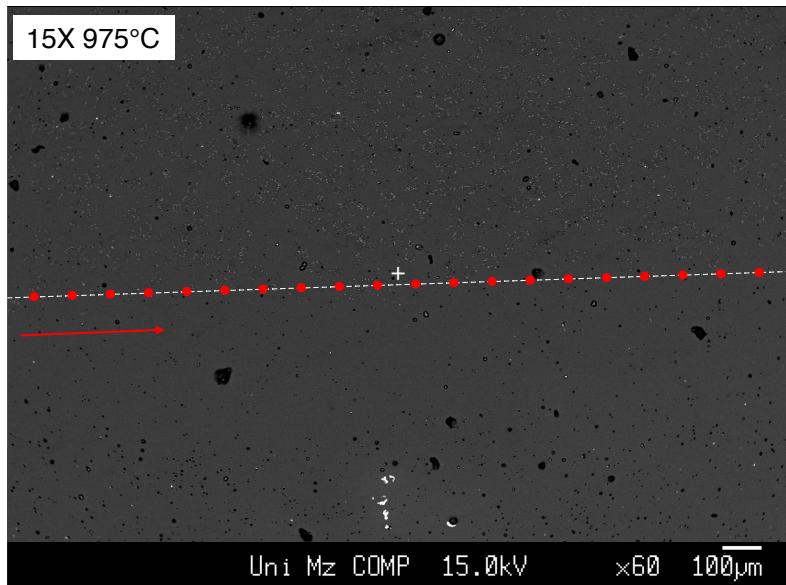
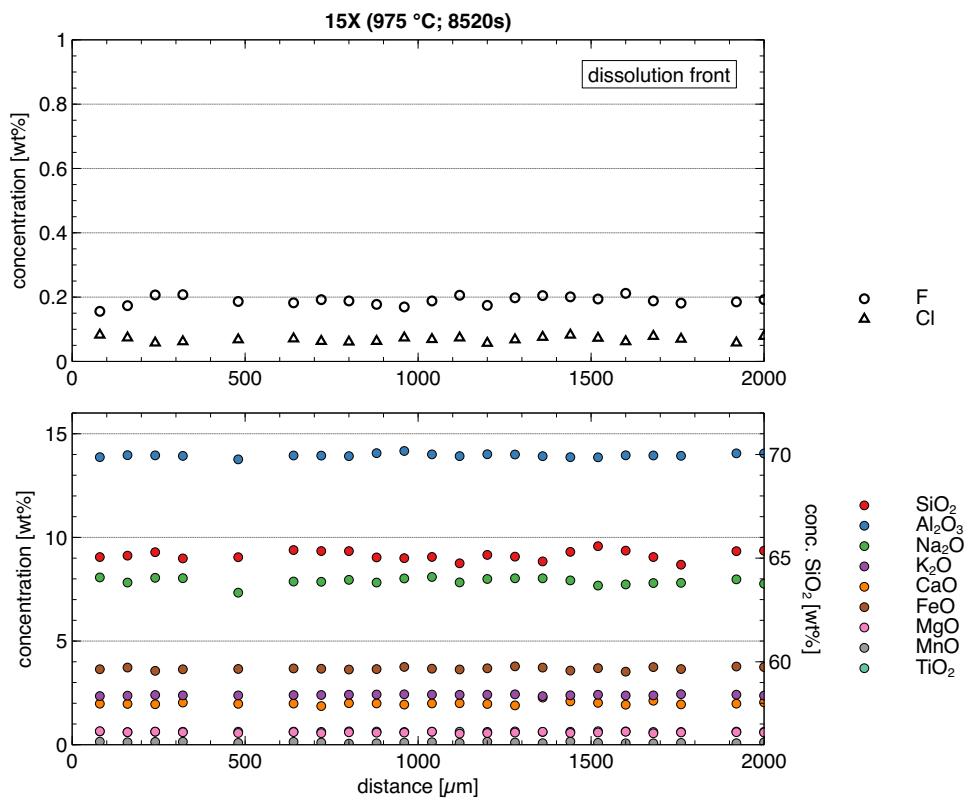


Figure S3B: EPMA analysis along the interface between crystal-bearing and -free glass in sample 15X. Red dots correspond to analysis points. The profile was analyzed from left to right.

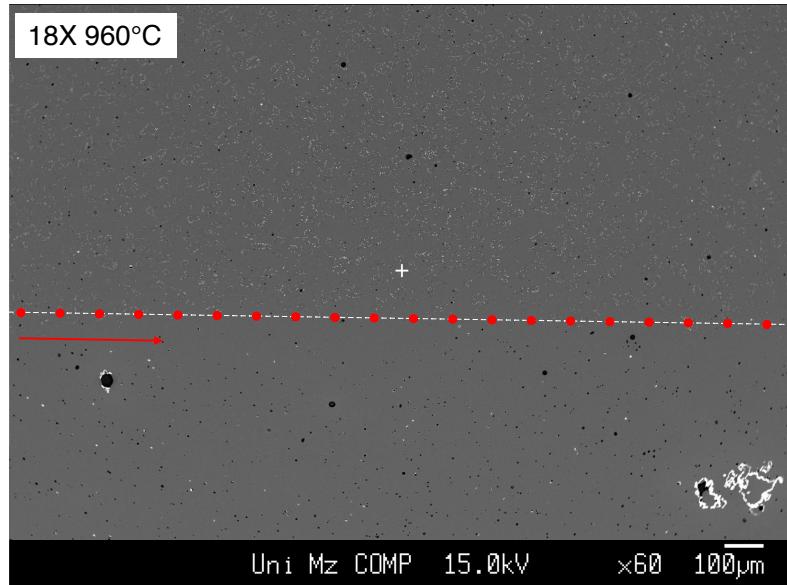
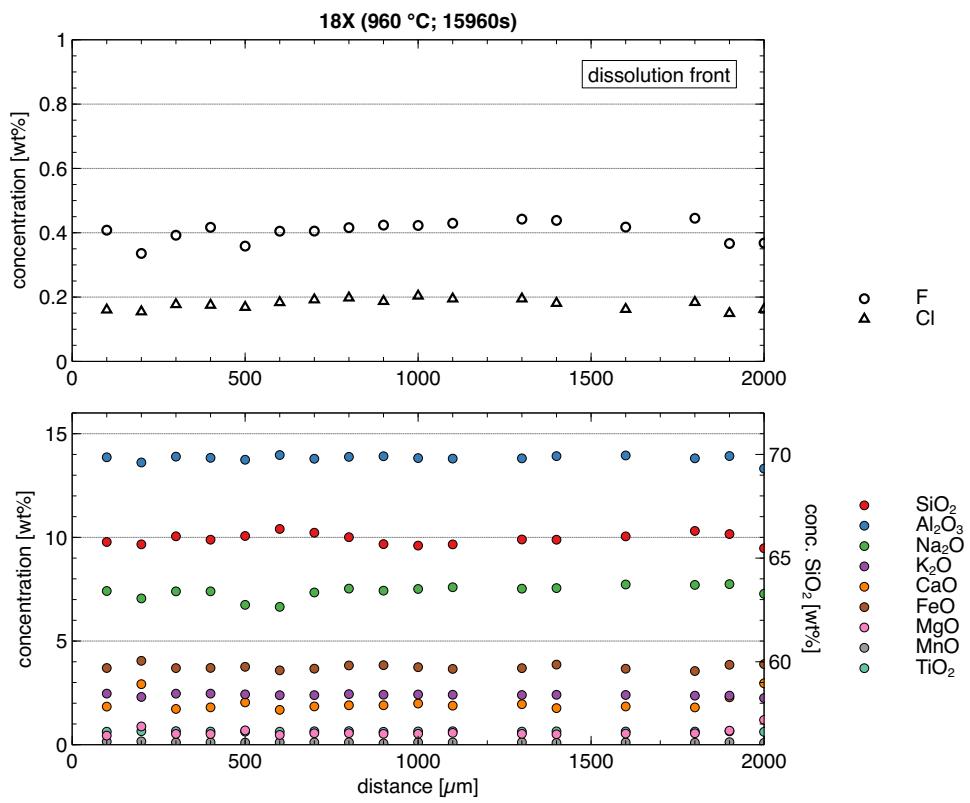


Figure S3C: EPMA analysis along the interface between crystal-bearing and -free glass in sample 18X. Red dots correspond to analysis points. The profile was analyzed from left to right.

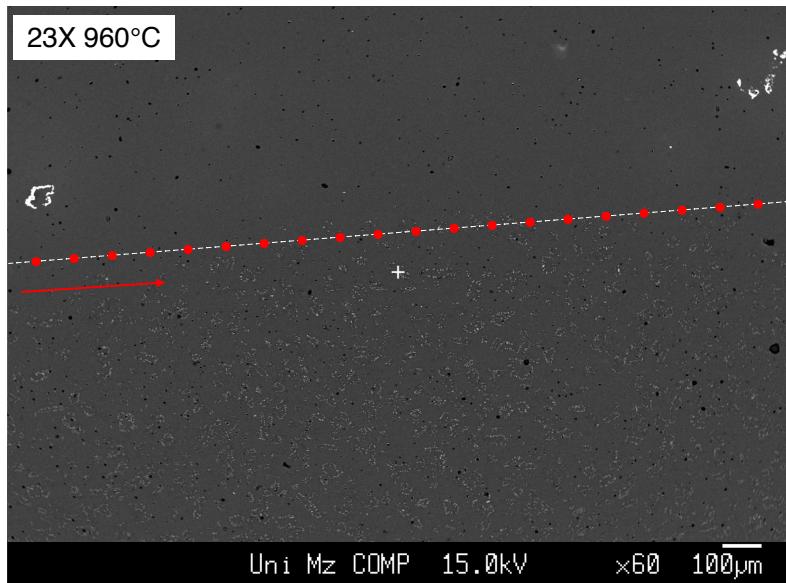
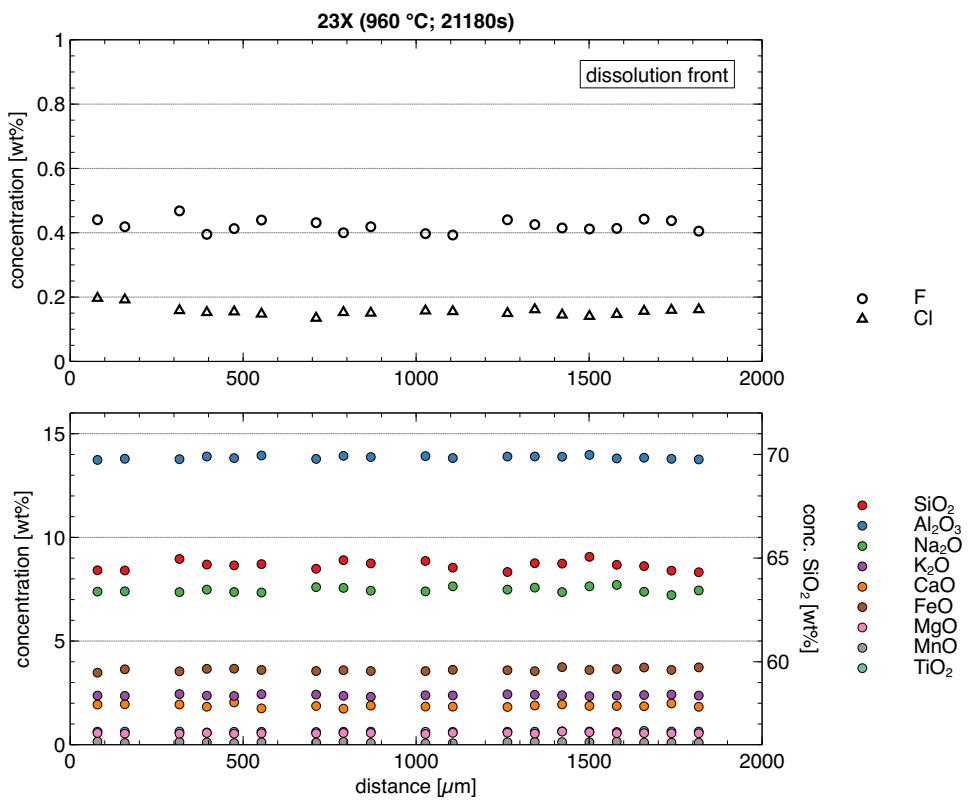


Figure S3D: EPMA analysis along the interface between crystal-bearing and -free glass in sample 23X. Red dots correspond to analysis points. The profile was analyzed from left to right.

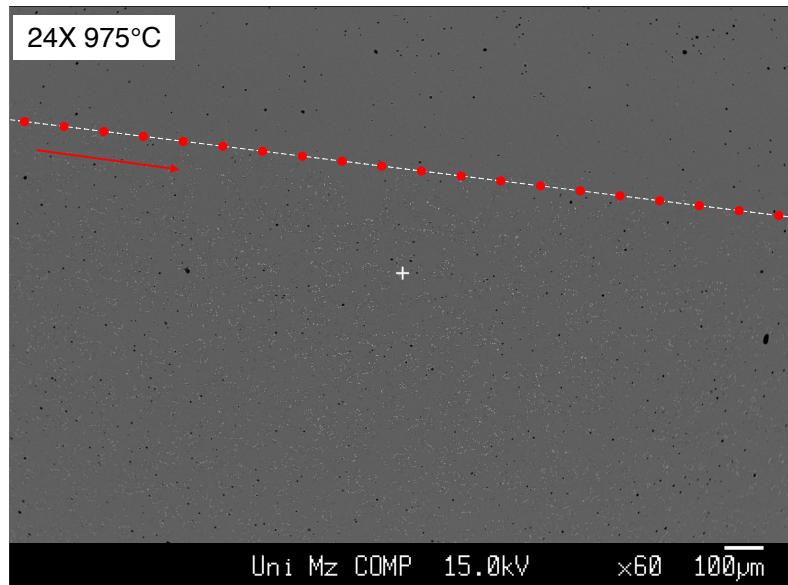
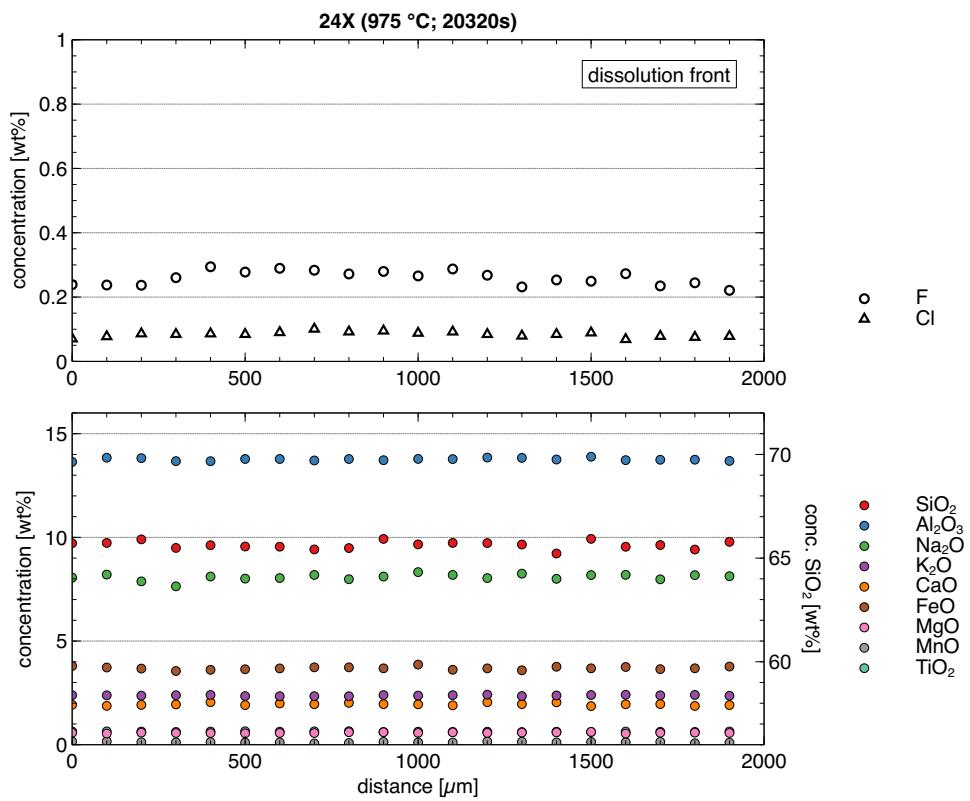


Figure S3E: EPMA analysis along the interface between crystal-bearing and -free glass in sample 24X. Red dots correspond to analysis points. The profile was analyzed from left to right.

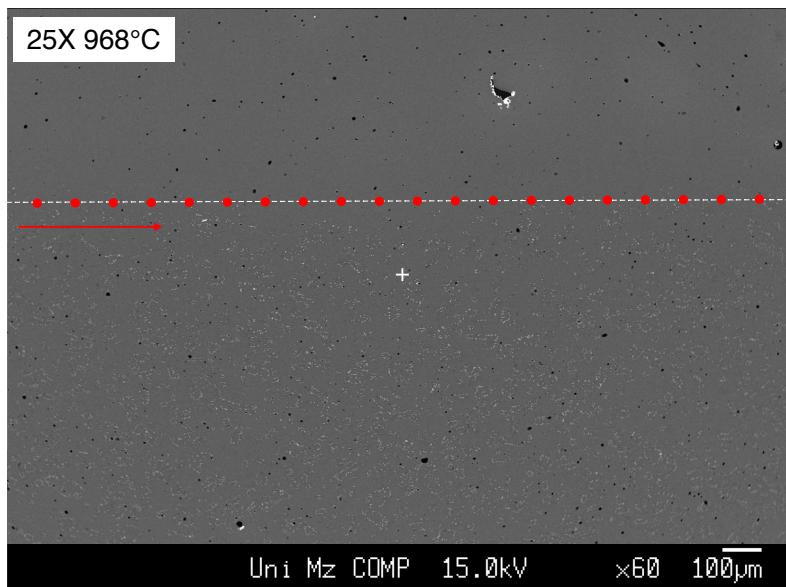
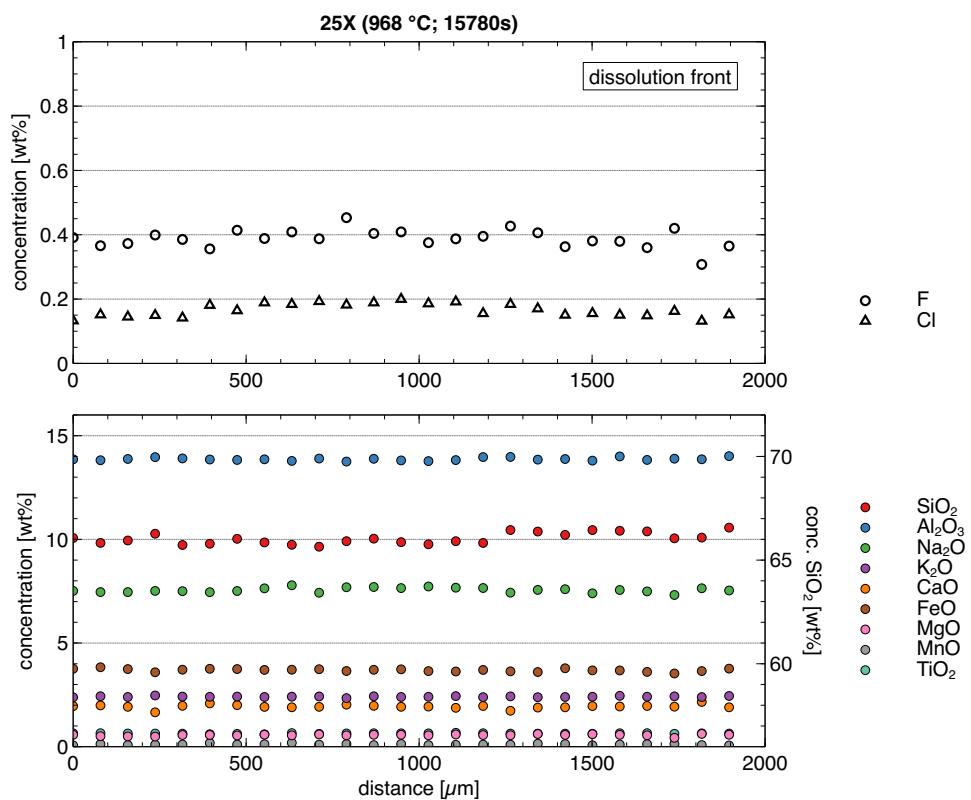


Figure S3F: EPMA analysis along the interface between crystal-bearing and -free glass in sample 25X. Red dots correspond to analysis points. The profile was analyzed from left to right.

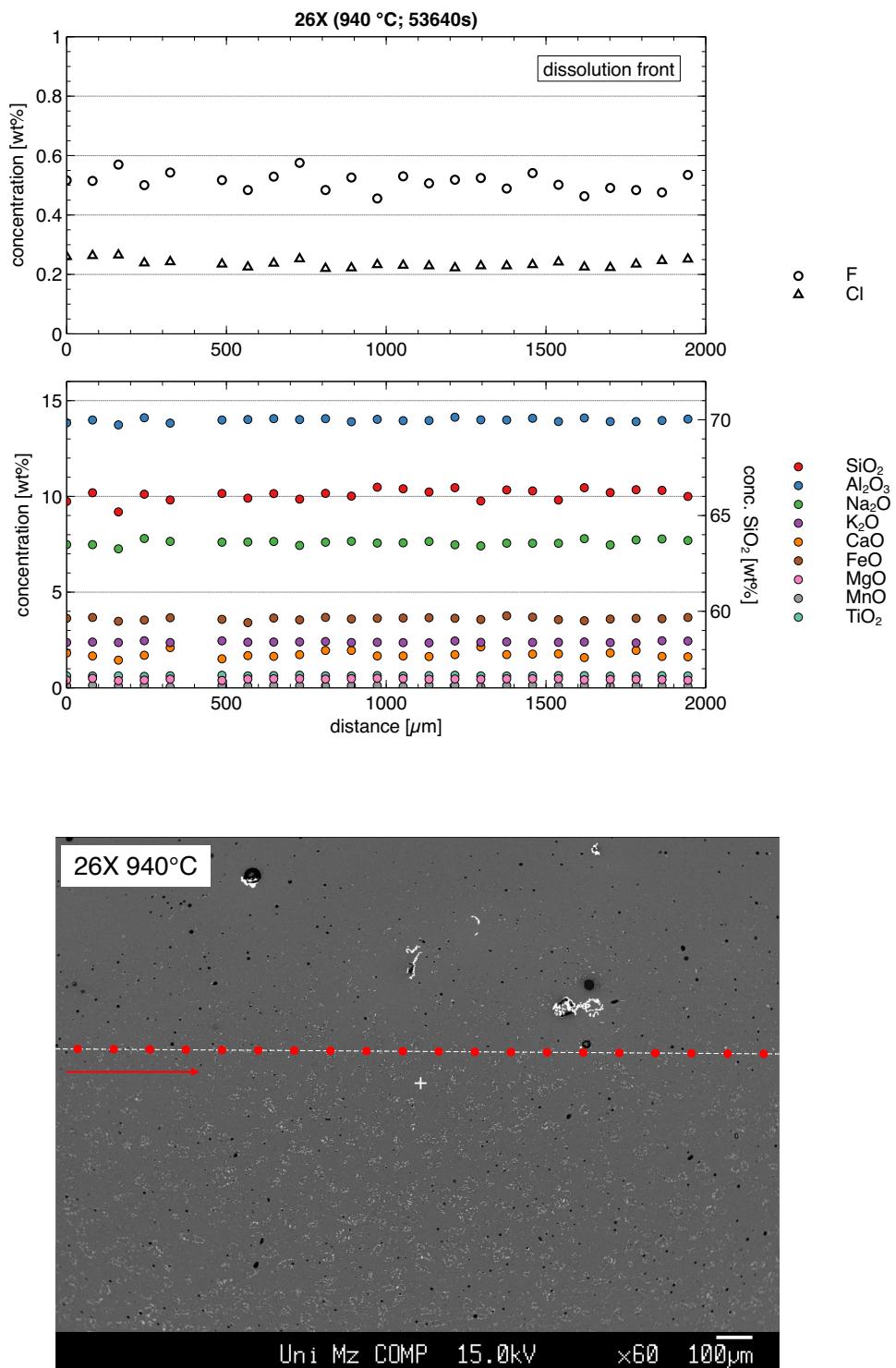


Figure S3G: EPMA analysis along the interface between crystal-bearing and -free glass in sample 26X. Red dots correspond to analysis points. The profile was analyzed from left to right.

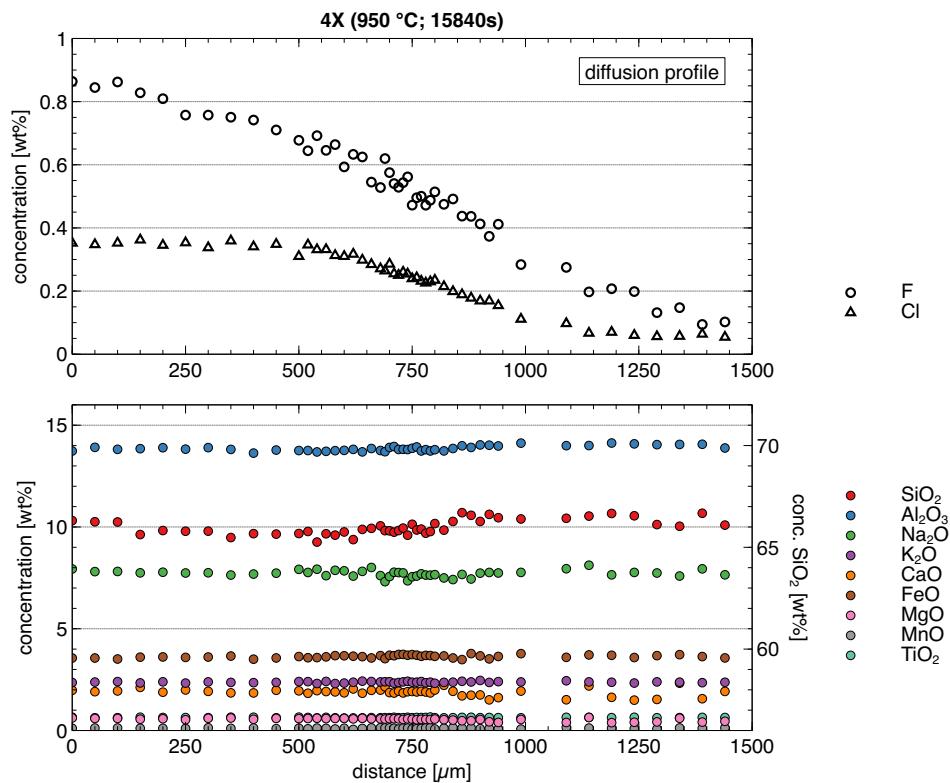


Figure S4A: Halogen and major element concentration profiles of sample 4X.

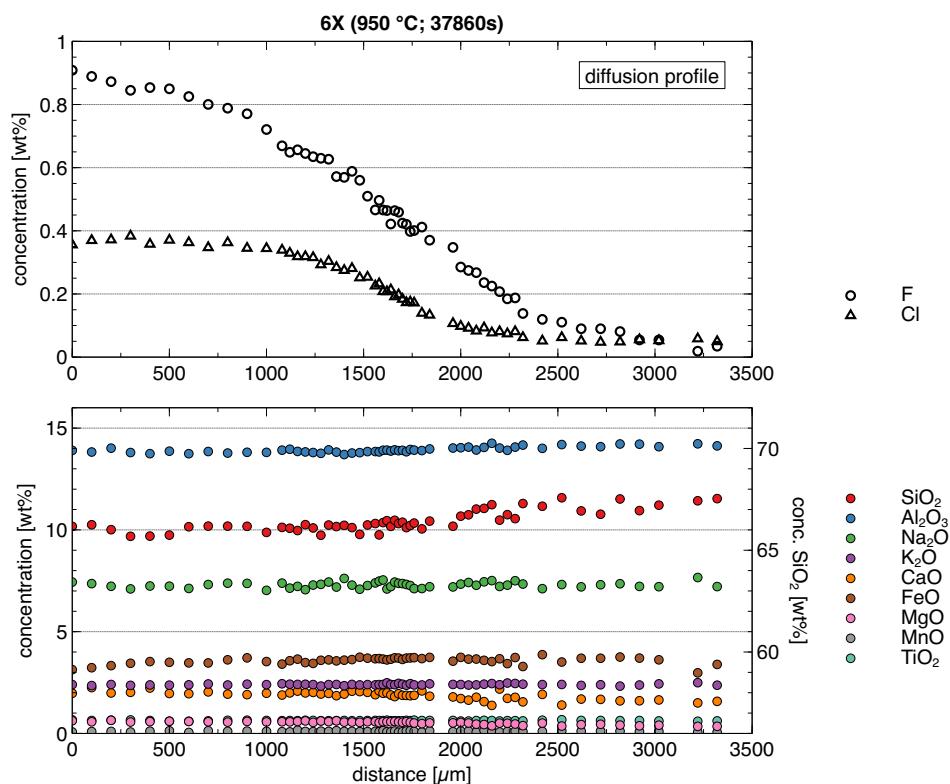


Figure S4B: Halogen and major element concentration profiles of sample 6X.

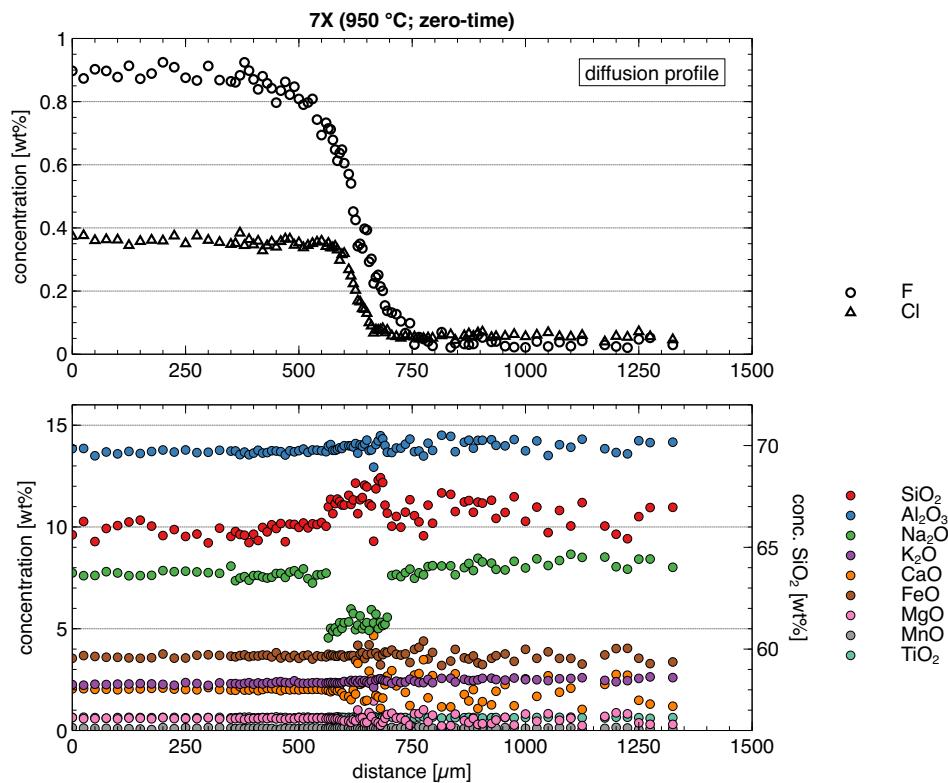


Figure S4C: Halogen and major element concentration profiles of sample 7X.

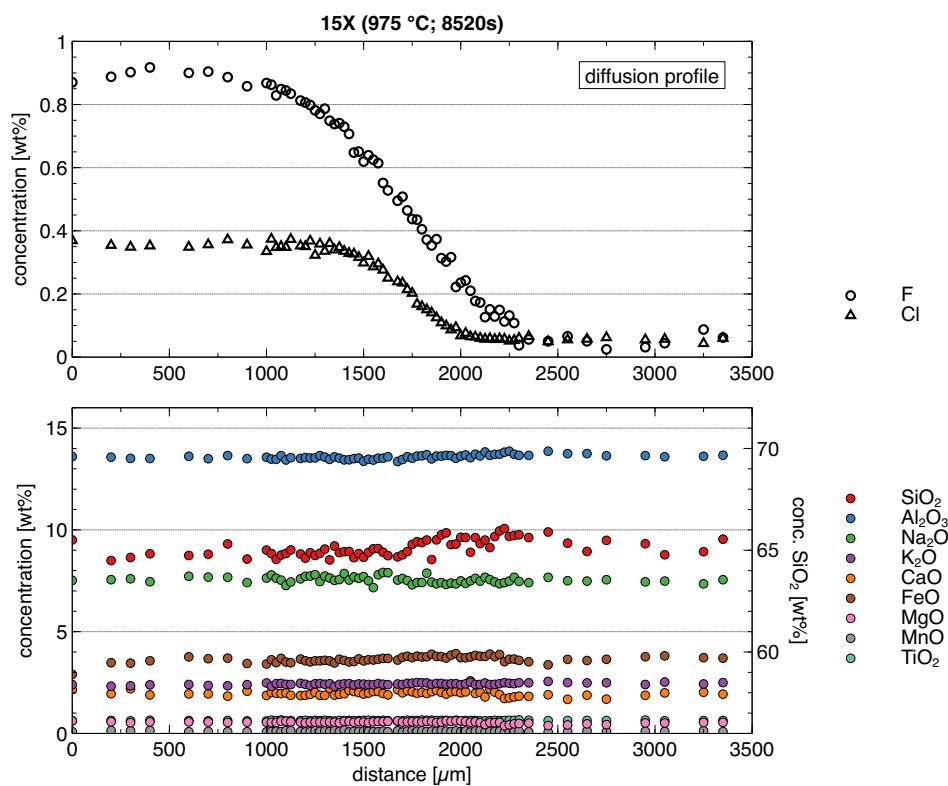
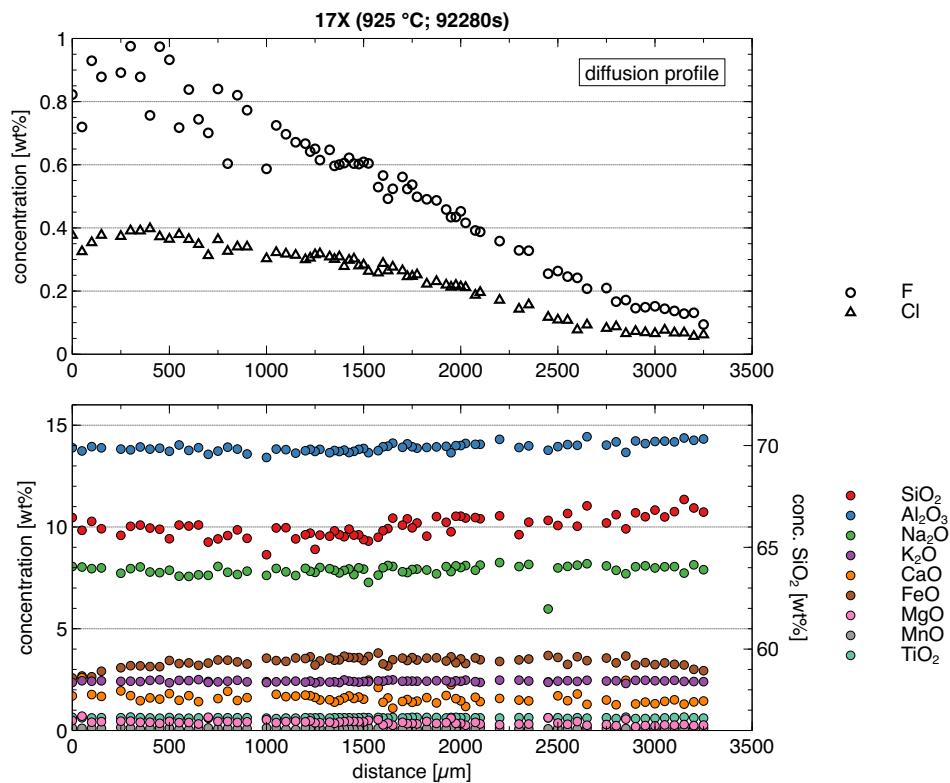
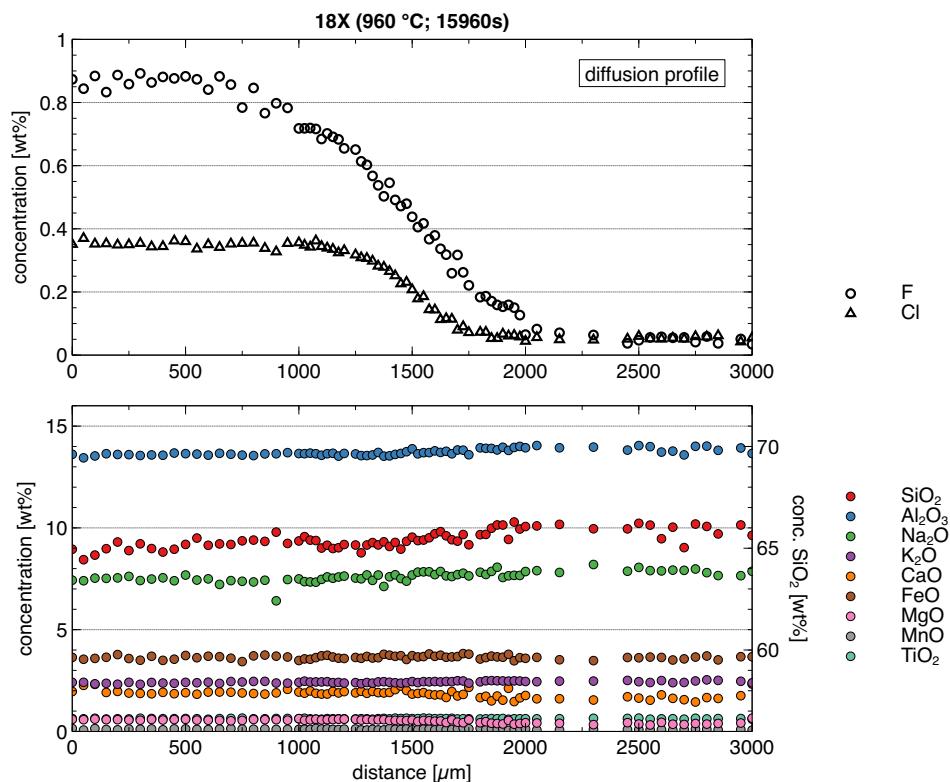
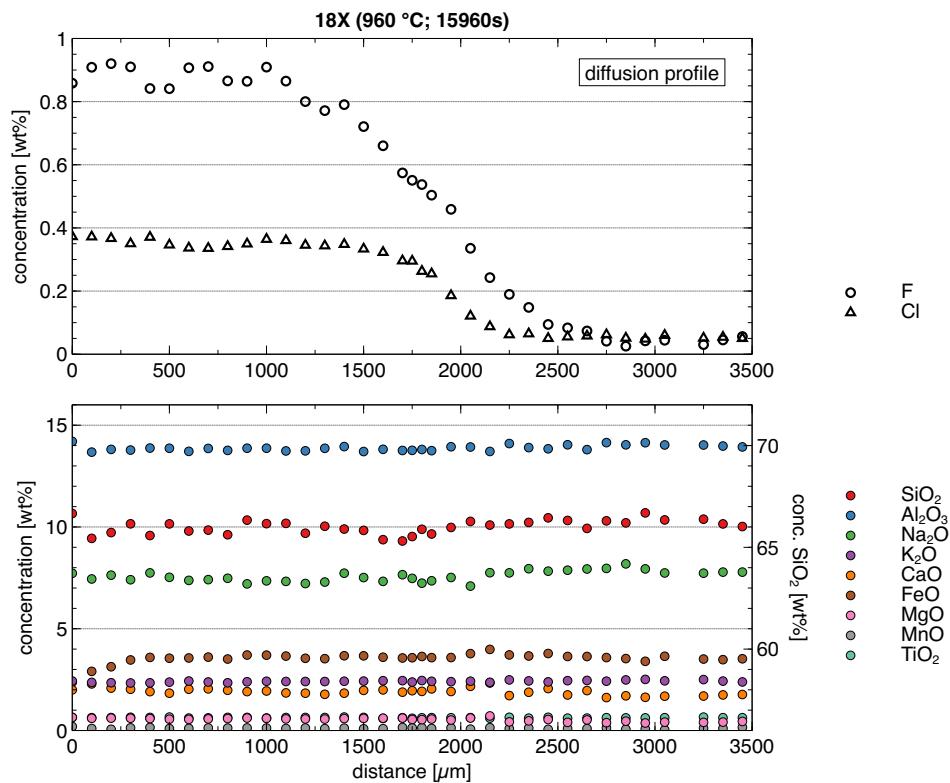
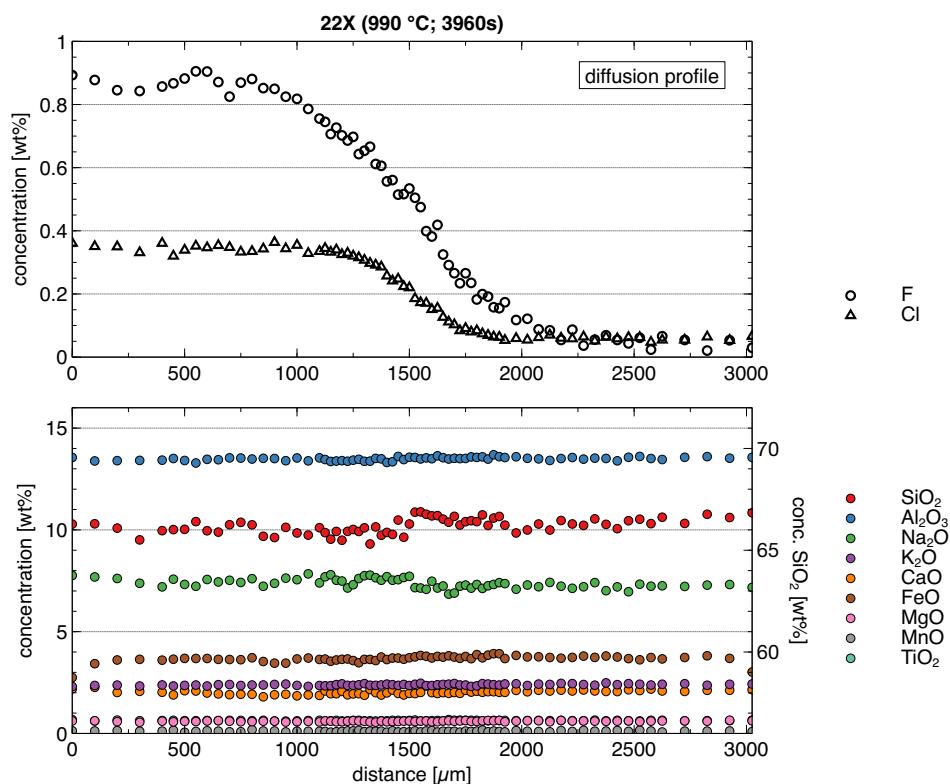


Figure S4D: Halogen and major element concentration profiles of sample 15X.

**Figure S4E:** Halogen and major element concentration profiles of sample 17X.**Figure S4F:** Halogen and major element concentration profile of sample 18X.

**Figure S4G:** Halogen and major element concentration profile of sample 18X.**Figure S4H:** Halogen and major element concentration profile of sample 22X.

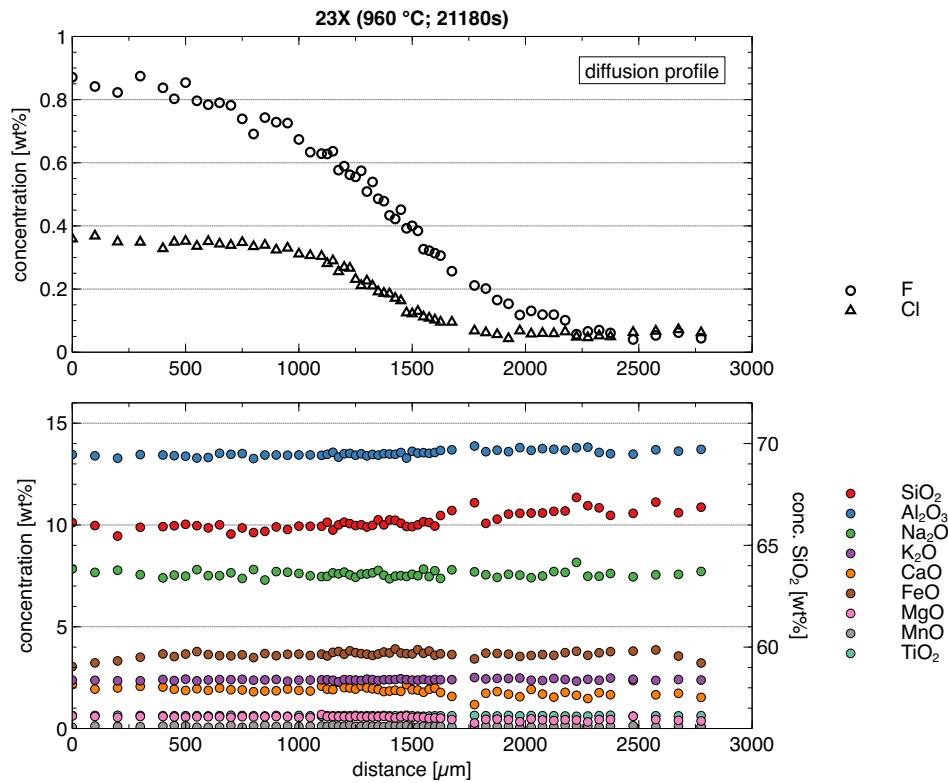


Figure S4I: Halogen and major element concentration profile of sample 23X.

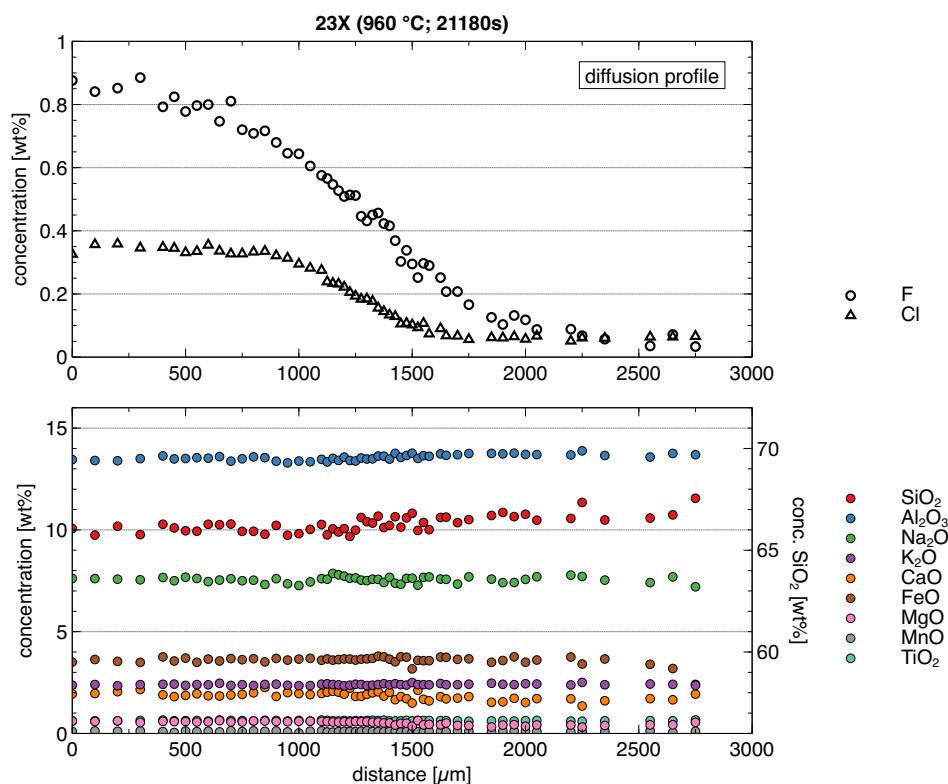
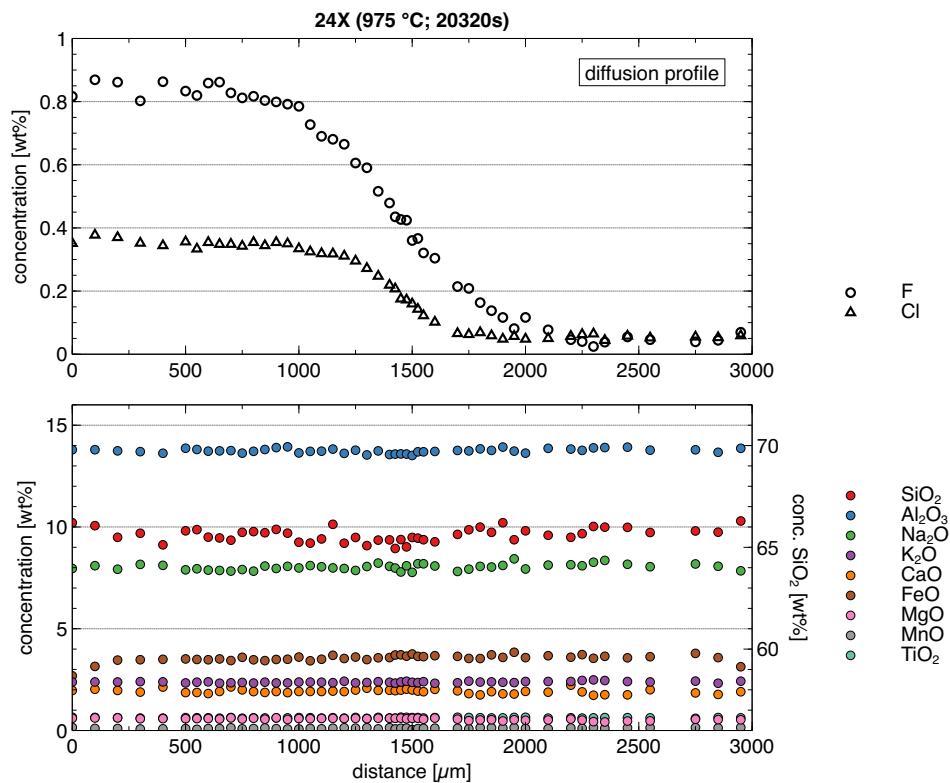
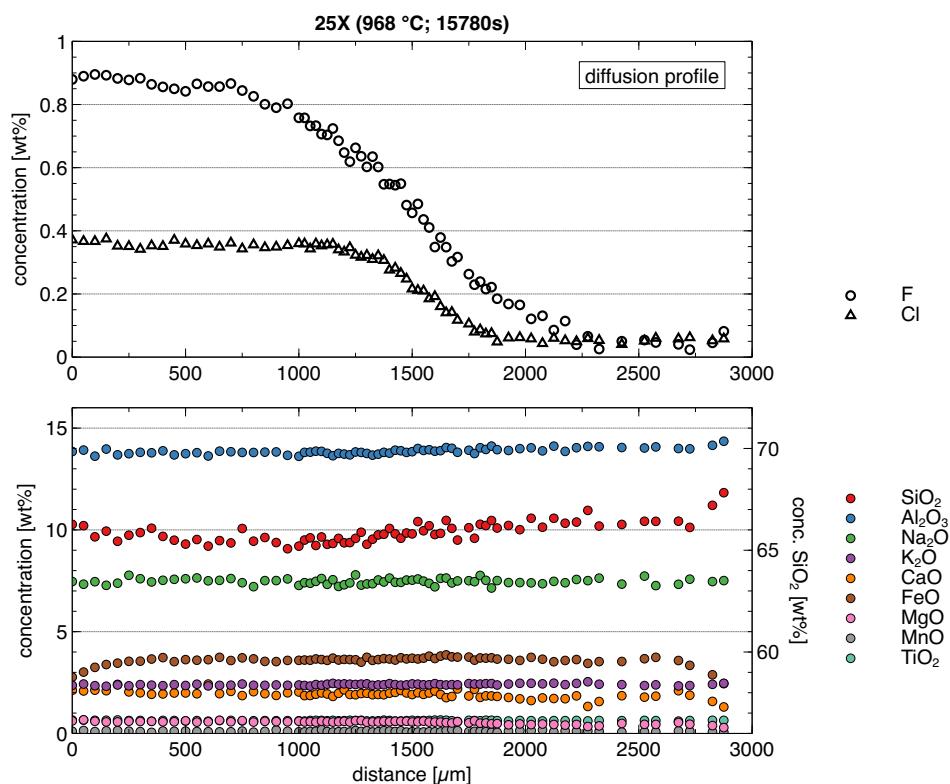


Figure S4J: Halogen and major element concentration profile of sample 23X.

**Figure S4K:** Halogen and major element concentration profile of sample 24X.**Figure S4L:** Halogen and major element concentration profile of sample 25X.

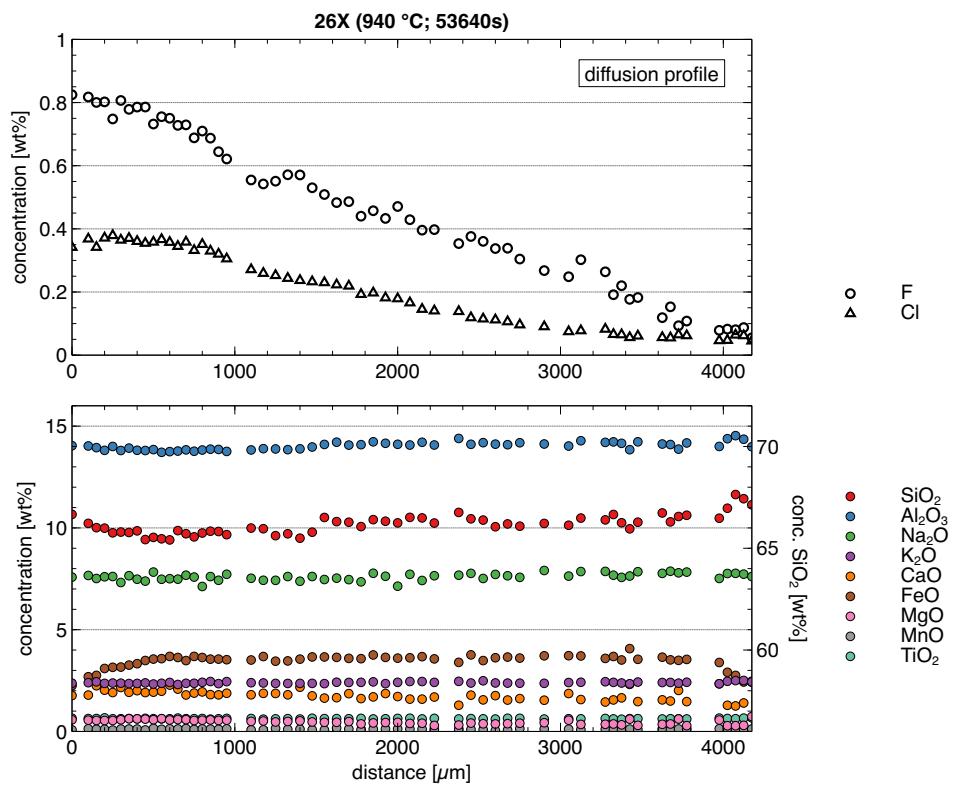


Figure S4M: Halogen and major element concentration profile of sample 26X.