



Analyses of WEST C3 samples: results from SIMS analyses

Antti Hakola

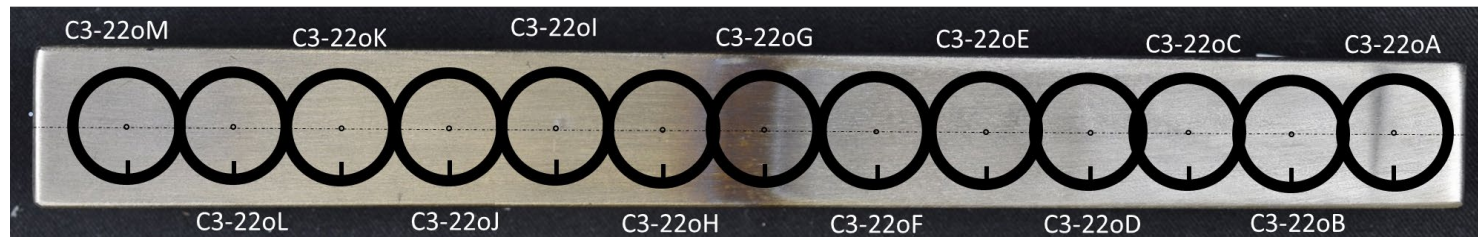
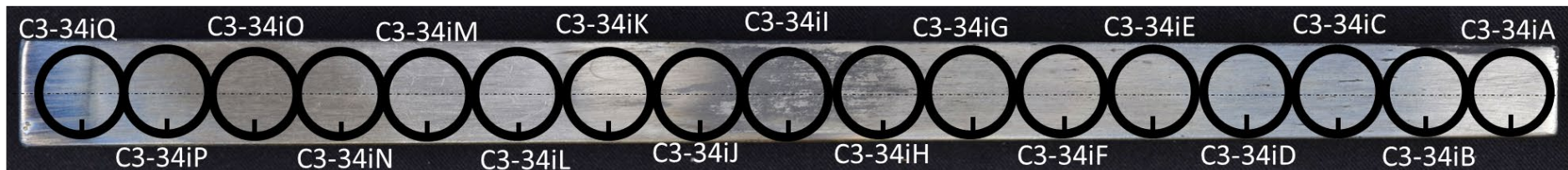
On behalf of the VTT collaborators

A. Hakola, J. Likonen, T. Vuoriheimo



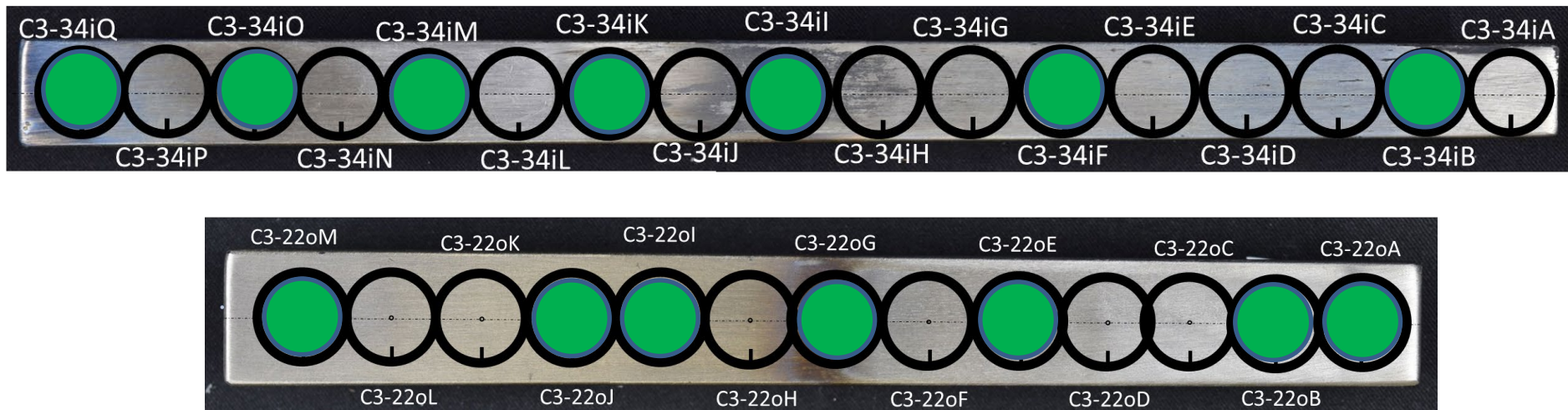
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Investigated samples



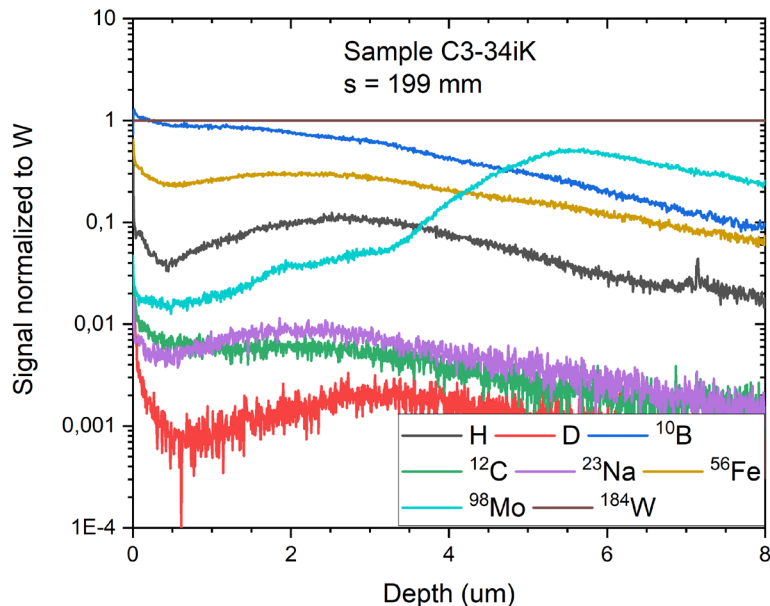
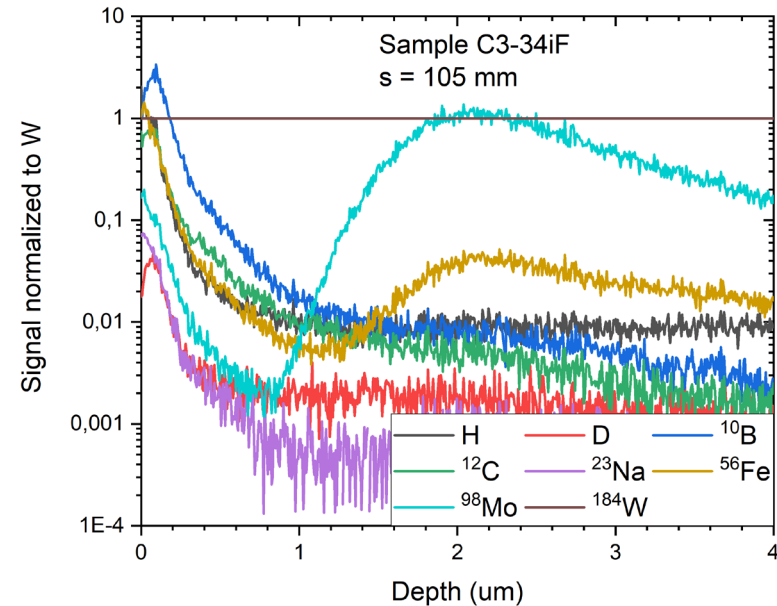
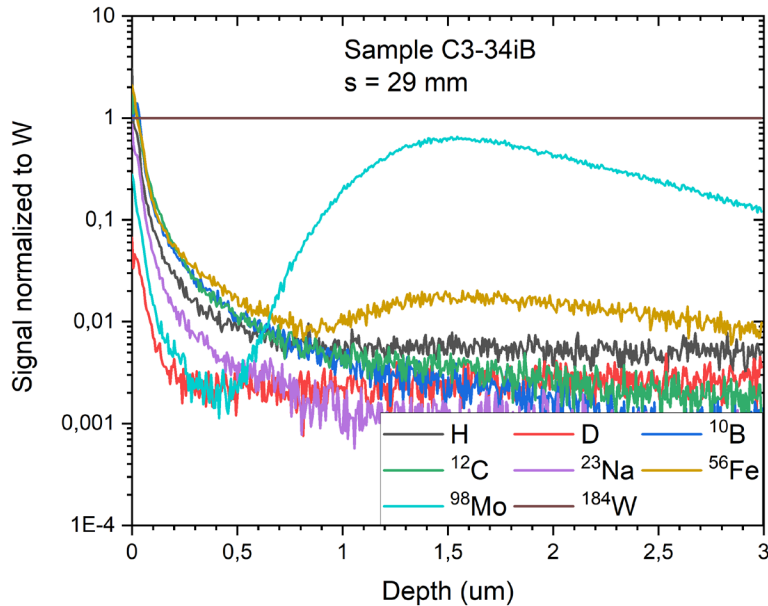
- All samples **marked in green** analyzed using SIMS
 - ✓ All samples sent afterwards to IAP, IST, and NCSRD
- Measurement points **along the "horizontal" central line**; typically 3 points/sample such that one point always ~in the middle
 - ✓ Distance between successive s coordinates ~4 mm
- Depth profiles of **selected mass signals** recorded: 1 (H), 2 (D), 10 (B), 12 (C), 23 (Na), 56 (Fe), 98 (Mo), and 184 (W)
 - ✓ In the following, the mass signals normalized to that of W (clearest reference)

Investigated samples



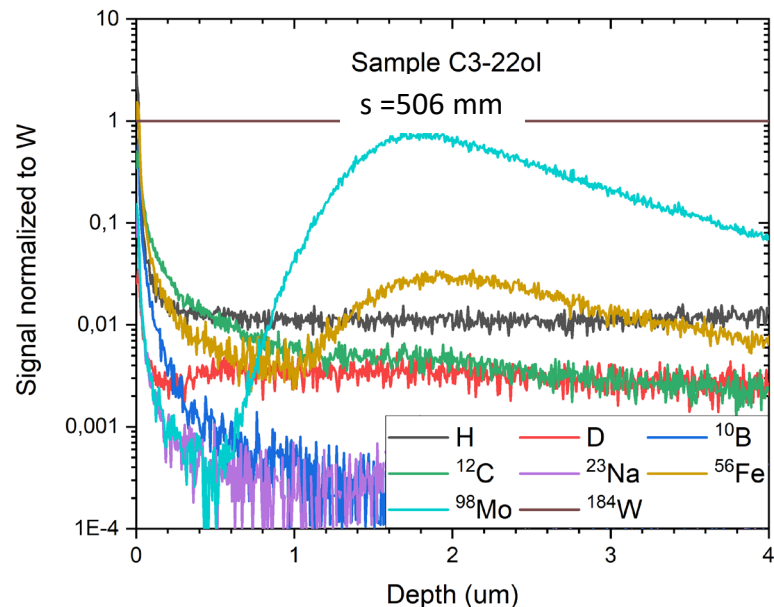
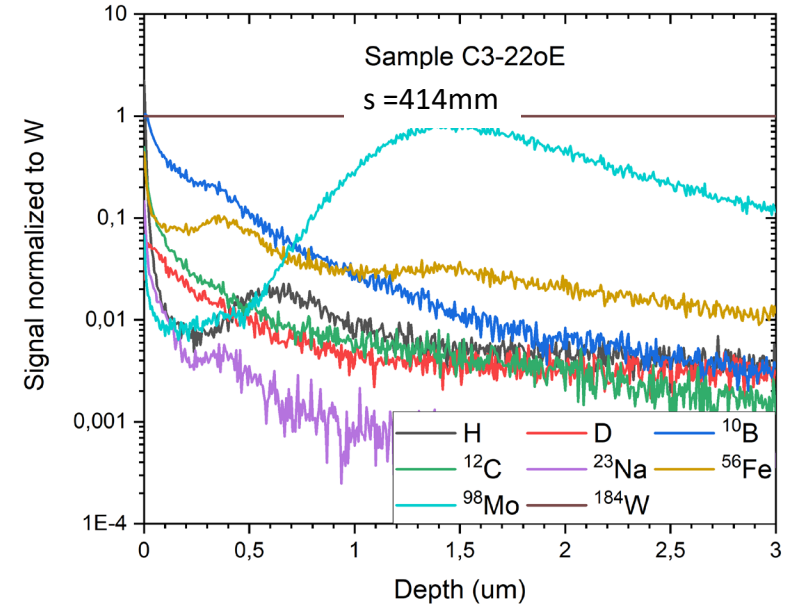
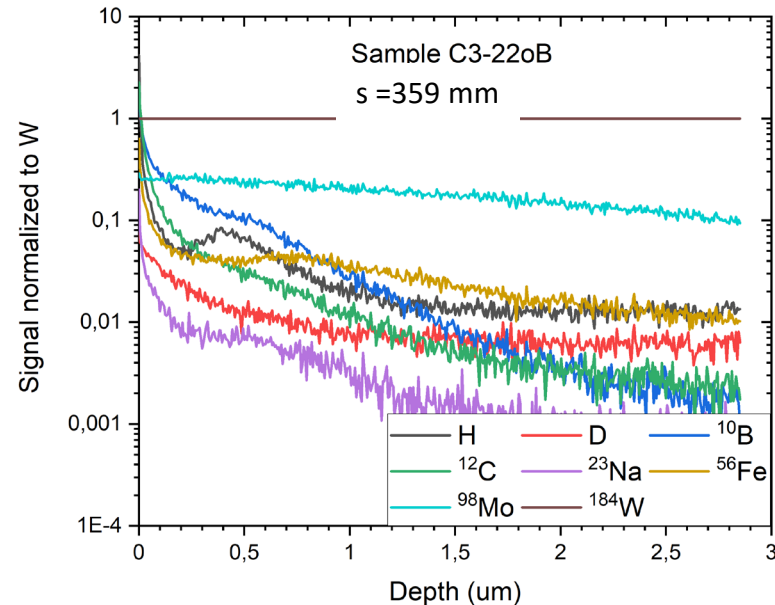
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Examples of SIMS profiles: tile C3-34i



- Deposition mainly on the very surface, except on the samples from the region of thicker deposits where several micron thick deposits are seen
 - ✓ Notice the different depth scales
- Especially the C and B peaks can extend deep into the surface layer
- Other elements even show secondary peaks closer to the interface between the deposit and the marker coating

Examples of SIMS profiles: tile C3-22o



- On deposition-dominated areas the conclusions quite similar to those on tile C3-34i
- On the erosion-dominated region, strong damage observed and only remnants of the Mo and W markers seen