

Supplemental Material

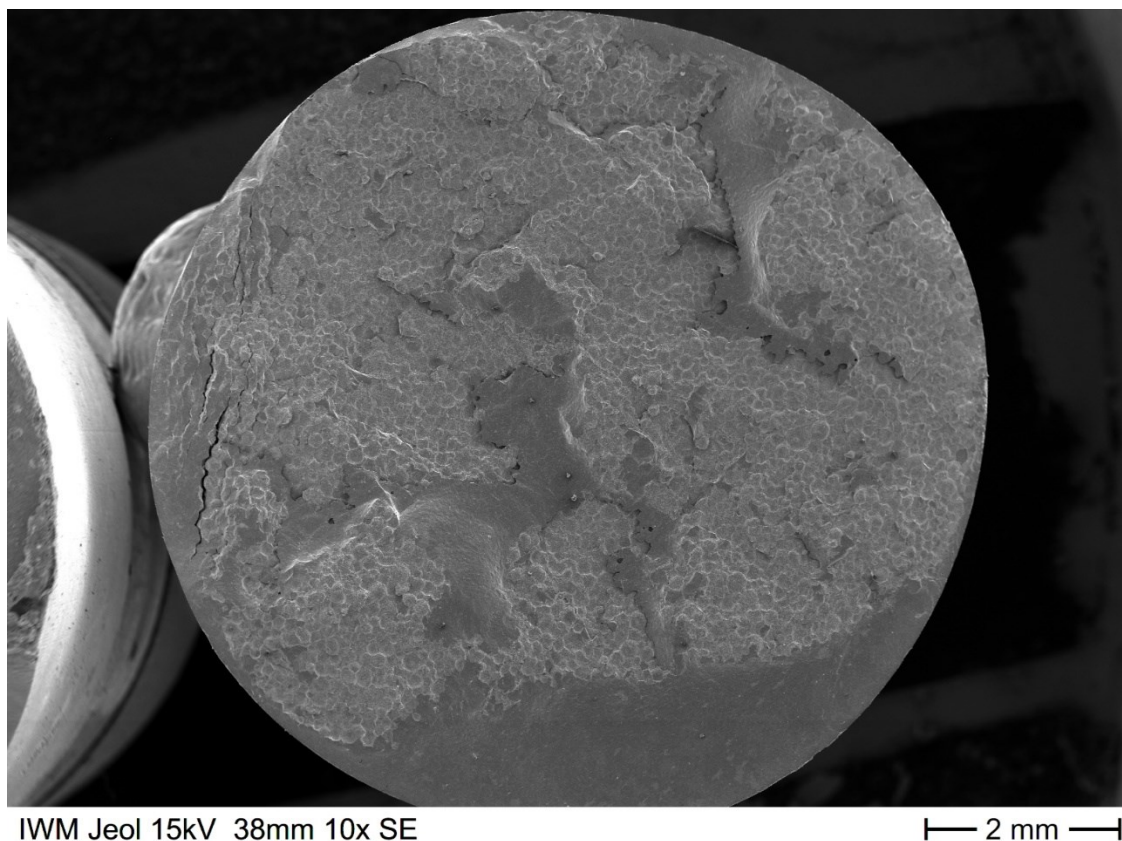


Figure S1: SE image shown as exemplary ceramic fracture type 1 of series Z in Figure 7. The initial granules with $d_{50} = 125 \mu\text{m}$ are visible. This fracture type 1 occurs mainly in the center of the ceramic sample where the pressure during the uniaxial pre-compaction of the BSCF granules is lowest.

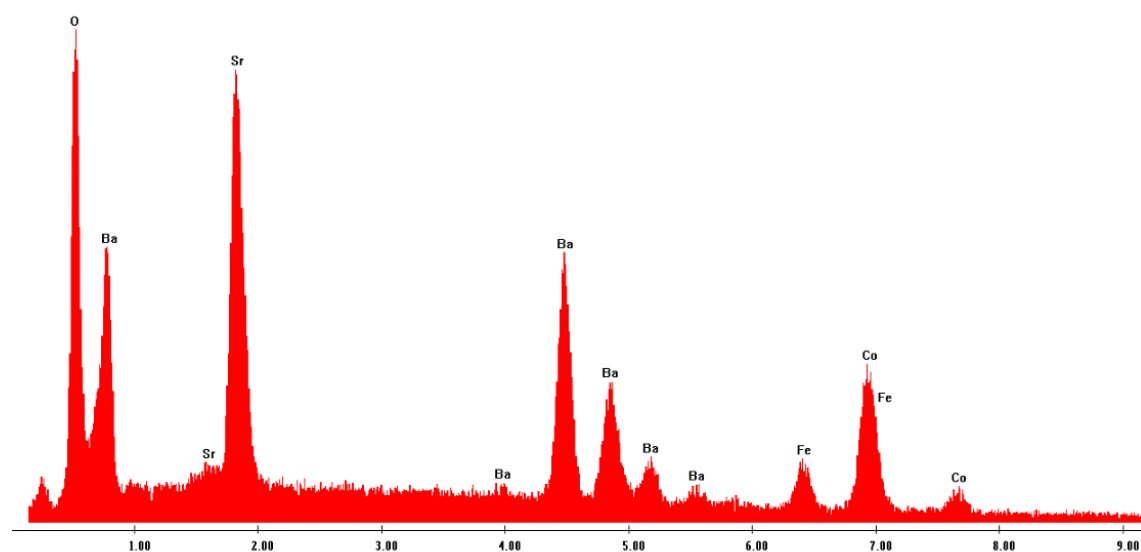
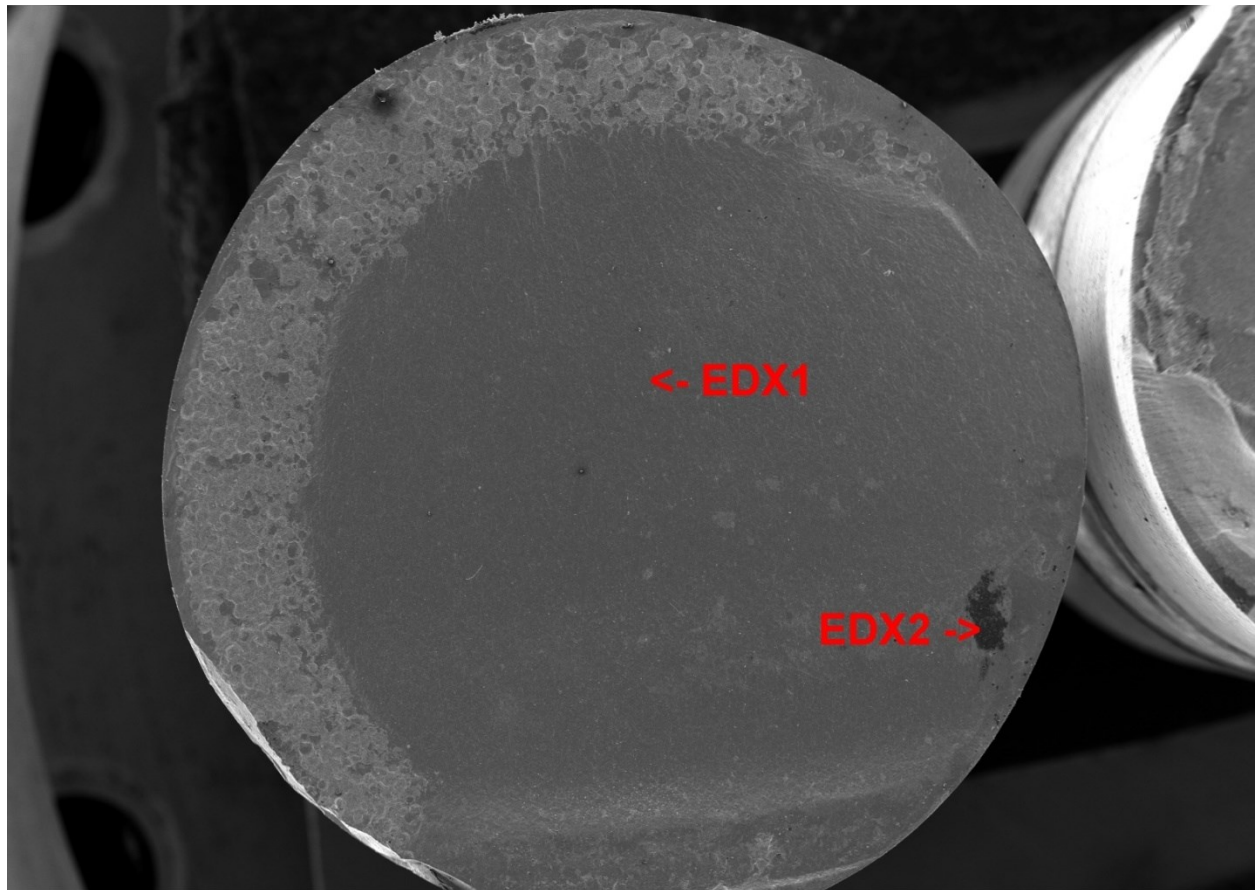


Figure S2: Area EDX measurement on the fracture surface in Figure 1. No chromium or other impurities were detected.



IWM Jeol 15kV 37mm 10x SE

— 2 mm —

Figure S3: SE image shown as exemplary ceramic fracture type 2 of series Z in Figure 7. The point EDX analyses revealing no chromium poisoning, but local Na, K, Cl contamination are given in Figure 4 and 5, respectively.

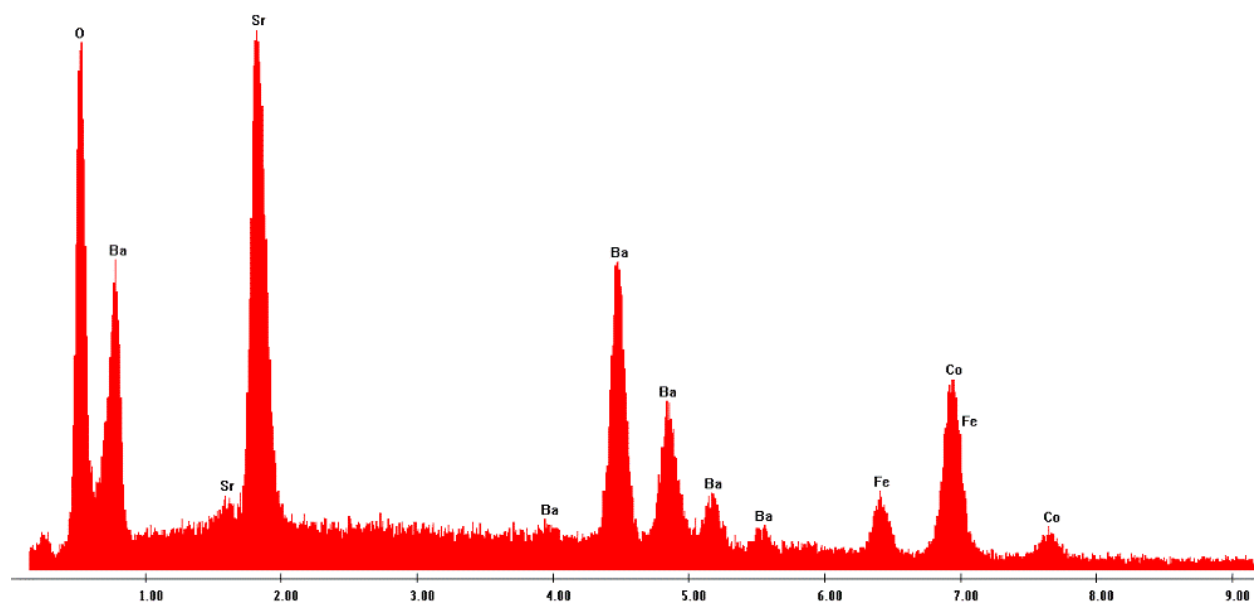


Figure S4: EDX1, position marked in Figure 3

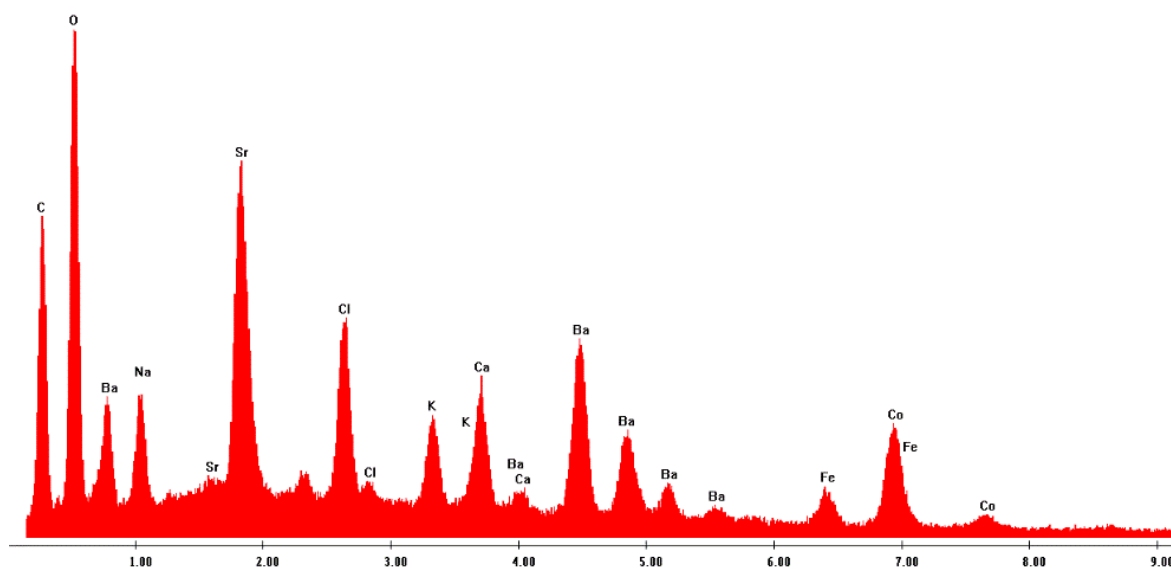


Figure S5: EDX2, position marked in Figure 3

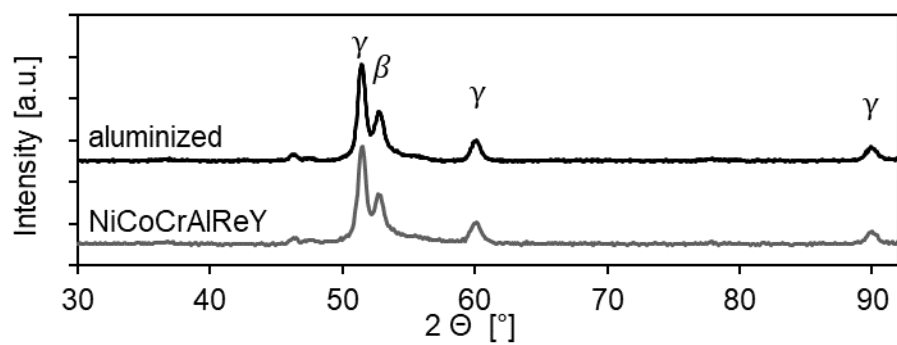


Figure S6: XRD phase analysis on aluminized and 1 h pre-oxidized AISI314 and on NiCoCrAlReY coated AISI314.