

The (110) and (320) surfaces of a Cantor alloy

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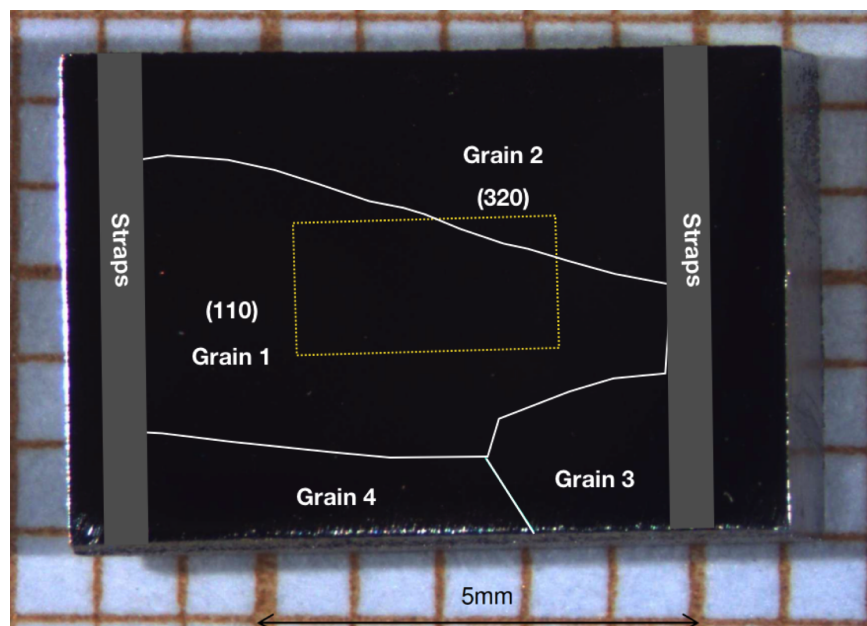


Figure S1: Representation of the grain distribution on the FeCrMnNiCo sample along with the estimated area investigated by XPS (yellow rectangle).

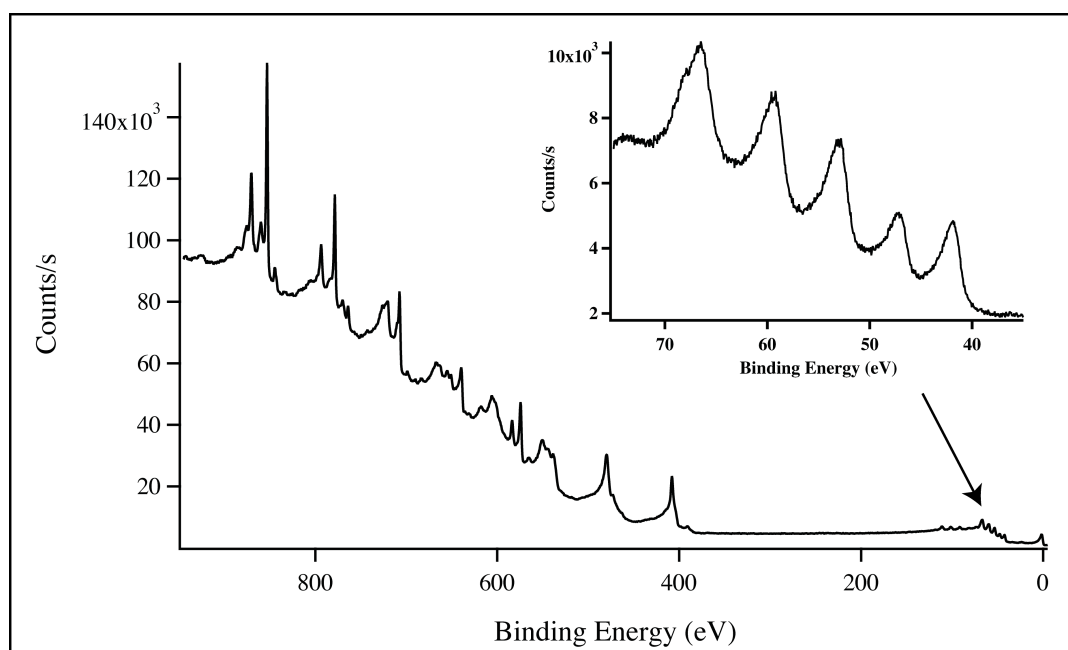


Figure S2: XPS survey spectrum measured on the FeCrMnNiCo surface annealed to 798 K for 2h15min. Top right: Transition-metal 3p core levels region selected to monitor the surface compositional evolution under various sample preparations.

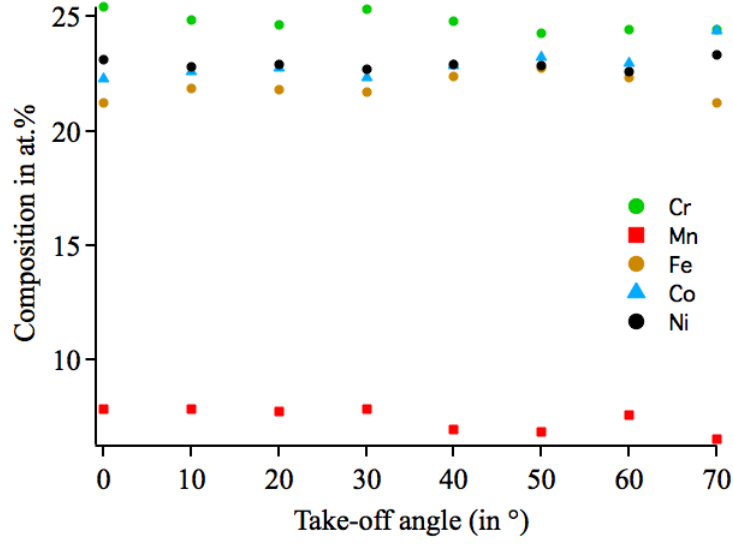


Figure S3: Evolution of the atomic composition (in at.%) of the five elements as a function of photoelectron take-off angle for a sputtered FeCrMnNiCo surface. As the XPS measurements get more surface sensitive (70°), the compositions of the five elements remain constant. The errors are estimated at $\pm 10\%$ on the composition.

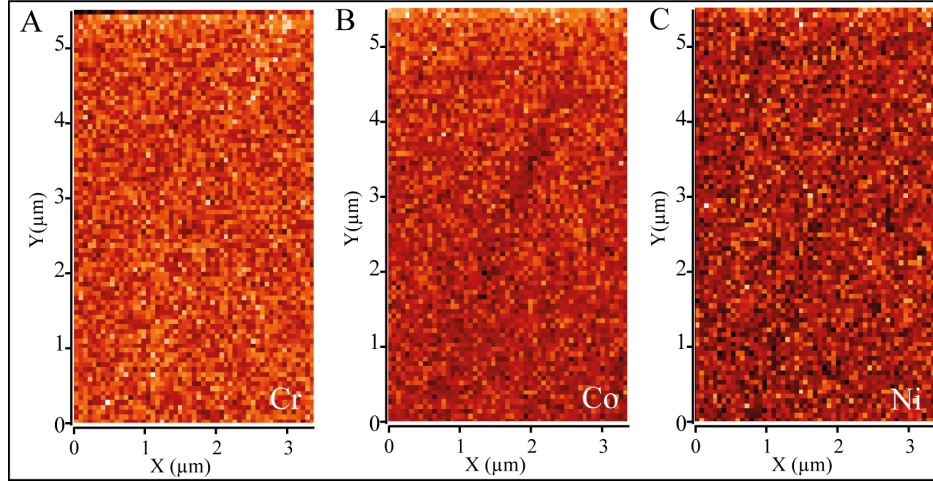


Figure S4: The SAM images (point size of 63 nm) displayed as (Peak-Background)/(Peak+Background) mode reveal the spatial distribution of (a) Cr, (b) Co and (c) Ni elements in the vicinity of the grain boundary. The following peak energies have been used for the measurements: 527 eV (Cr LMM), 771 eV (Co LMM) and 844 eV (Ni LMM).

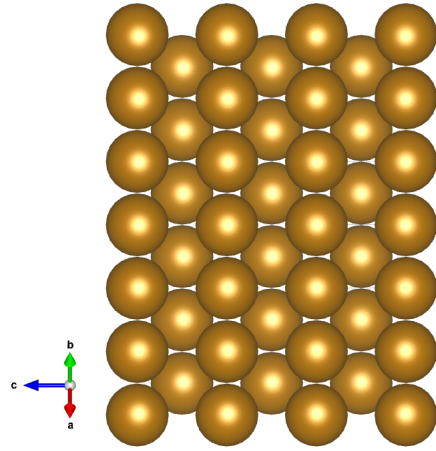


Figure S5: Representation of the expected (110) surface model for the FeCrMnNiCo sample.