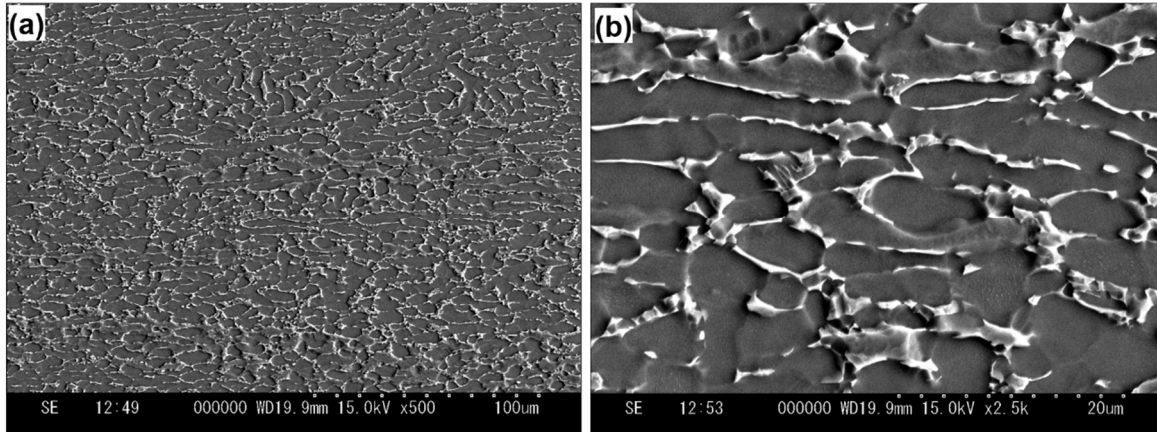
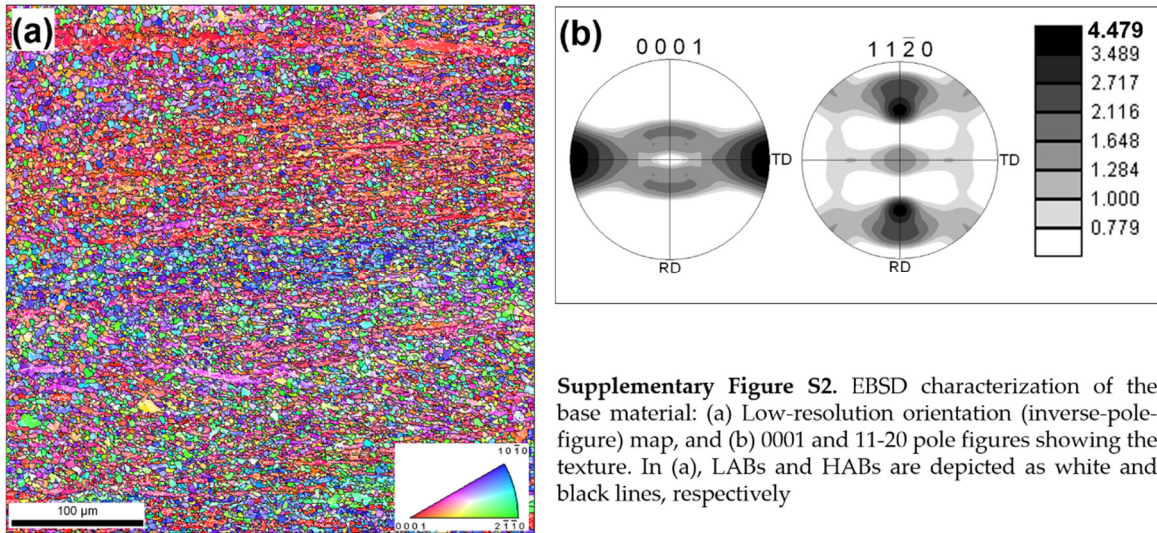


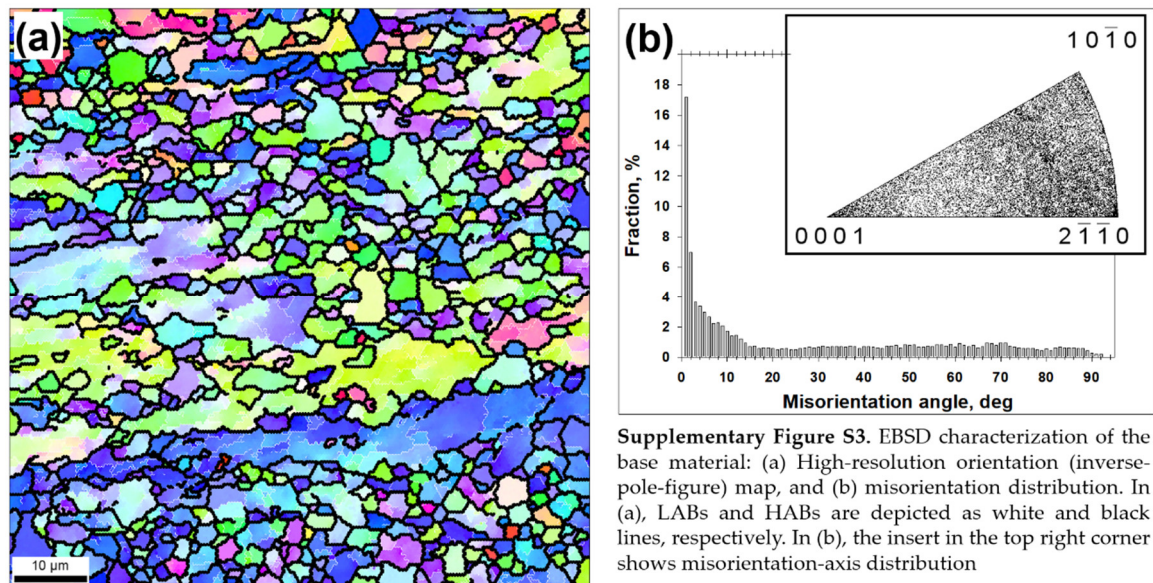
Supplementary Figures



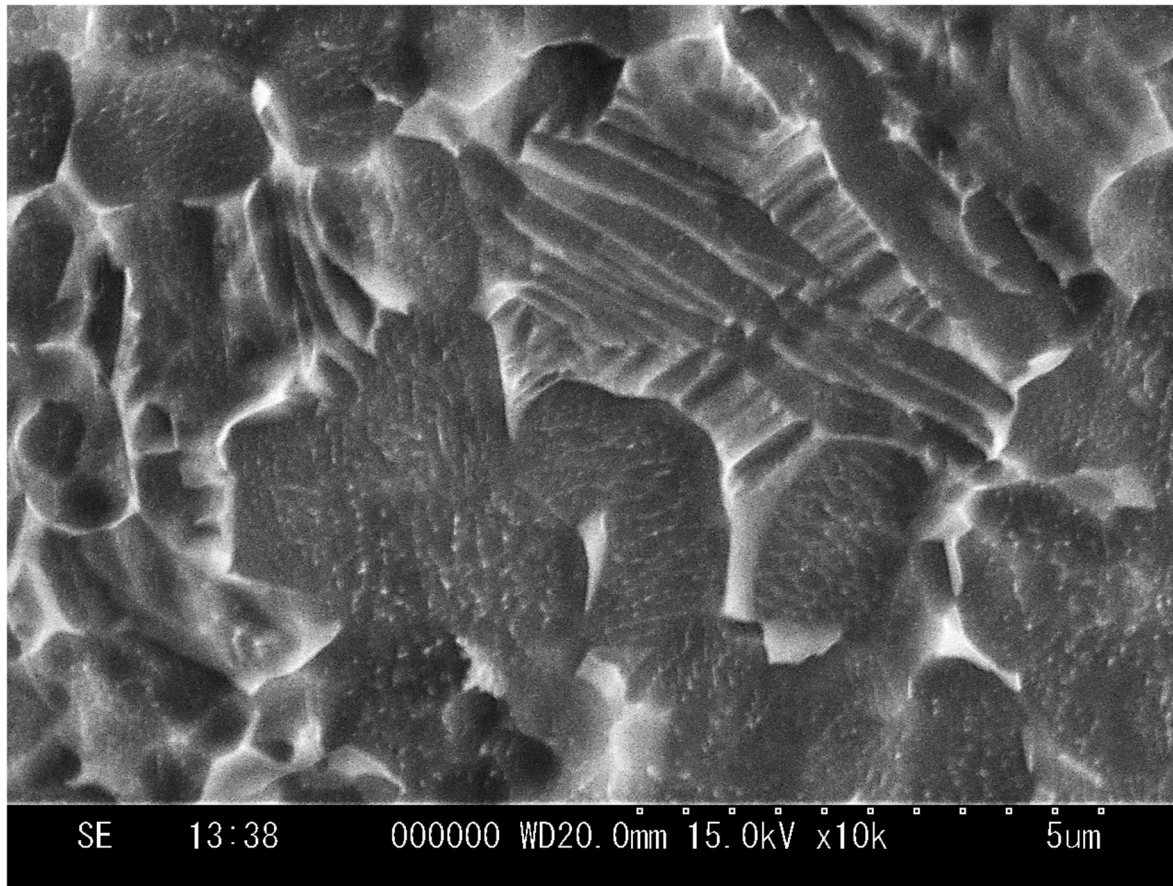
Supplementary Figure S1. SEM images of the microstructure of the base material at: (a) low magnification and (b) high magnification



Supplementary Figure S2. EBSD characterization of the base material: (a) Low-resolution orientation (inverse-pole-figure) map, and (b) 0001 and 11-20 pole figures showing the texture. In (a), LABs and HABs are depicted as white and black lines, respectively



Supplementary Figure S3. EBSD characterization of the base material: (a) High-resolution orientation (inverse-pole-figure) map, and (b) misorientation distribution. In (a), LABs and HABs are depicted as white and black lines, respectively. In (b), the insert in the top right corner shows misorientation-axis distribution



Supplementary Figure S4. SEM micrograph taken from the stir zone which exemplifies several secondary-alpha colonies within a prior- β grain