

Supplementary material

Table S1. Predicted misorientations between martensitic variants expected from the ideal K-S orientation relationship.

10.53° [0.577; 0.577; 0.577]	20.61° [0.955; 0.296; 0]	49.47° [0.577; 0.577; 0.577]	57.21° [0.714; 0.603; 0.357]
10.53° [0.707; 0.707; 0]	21.06° [0.912; 0.410; 0]	50.51° [0.739; 0.490; 0.462]	57.21° [0.738; 0.628; 0.246]
14.88° [0.933; 0.354; 0.650]	47.11° [0.719; 0.626; 0.302]	50.51° [0.767; 0.615; 0.186]	60.00° [0.577; 0.577; 0.577]
20.61° [0.659; 0.659; 0.363]	49.47° [0.707; 0.707; 0]	51.73° [0.659; 0.659; 0.363]	60.00° [0.707; 0.707; 0]

Table S2. Misorientations between V1 and other variants expected from the ideal K-S orientation relationship.

V2	60.0° [0.58; -0.58; 0.58]	V10	50.5° [-0.49; -0.46; 0.74]	V18	47.1° [-0.30; -0.63; -0.72]
V3	60.0° [0.00; -0.71; -0.71]	V11	14.9° [0.35; -0.93; -0.07]	V19	50.5° [-0.62; 0.17; -0.77]
V4	10.5° [0.00; 0.71; 0.71]	V12	57.2° [0.36; -0.71; 0.60]	V20	57.2° [-0.36; -0.60; -0.71]
V5	60.0° [0.00; 0.71; 0.71]	V13	14.9° [0.93; 0.35; 0.07]	V21	20.6° [0.96; 0.00; -0.30]
V6	49.5° [0.00; -0.71; -0.71]	V14	50.5° [-0.74; 0.46; -0.49]	V22	47.1° [-0.71; 0.30; -0.63]
V7	49.5° [-0.58; -0.58; 0.58]	V15	57.2° [-0.25; -0.63; -0.74]	V23	57.2° [-0.73; -0.25; 0.63]
V8	10.5° [0.58; -0.58; 0.58]	V16	20.6° [0.66; 0.66; 0.36]	V24	21.1° [0.91; 0.41; 0.00]
V9	50.5° [-0.19; 0.77; 0.62]	V17	51.7° [-0.66; 0.36; -0.66]		

Table S3. Predicted misorientations between martensitic variants expected from the mixed K-S and N-W orientation relationships.

5.26° [0.577; 0.577; 0.577]	20.16° [0.814; 0.551; 0.186]	50.87° [0.702; 0.579; 0.414]	54.74° [0.577; 0.577; 0.577]
5.26° [0.707; 0.707; 0]	20.16° [0.965; 0.214; 0.151]	50.87° [0.716; 0.640; 0.277]	55.66° [0.726; 0.492; 480]
11.77° [0.907; 0.358; 0.224]	48.57° [0.702; 0.669; 0.244]	52.14° [0.716; 0.613; 0.332]	57.84° [0.695; 0.672; 0.256]
11.77° [0.848; 0.483; 0.218]	48.57° [0.733; 0.559; 0.387]	52.14° [0.730; 0.627; 0.272]	58.83° [0.692; 0.691; 0.205]
17.19° [0.977; 0.154; 0.149]	49.73° [0.663; 0.537; 0.522]	54.74° [0.707; 0.707; 0]	58.83° [0.717; 0.549; 0.429]
17.19° [0.799; 0.548; 0.246]	49.73° [0.741; 0.664; 0.946]	54.74° [0.577; 0.577; 0.577]	60.21° [0.650; 0.538; 0.538]