Appendix Figure DR1: Secondary electron SEM images of broken surfaces ca. perpendicular to foliation and parallel to lineation showing partial $quartz_{2,2}$ mantles around $quartz_{2,1}$.
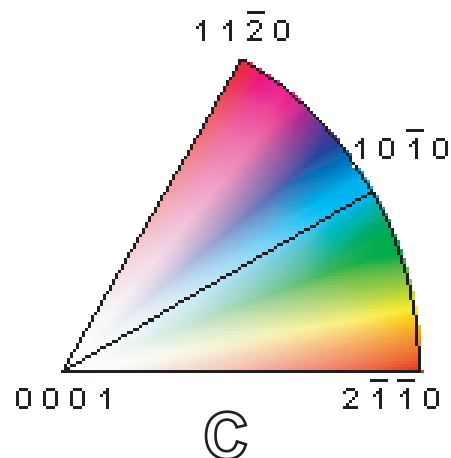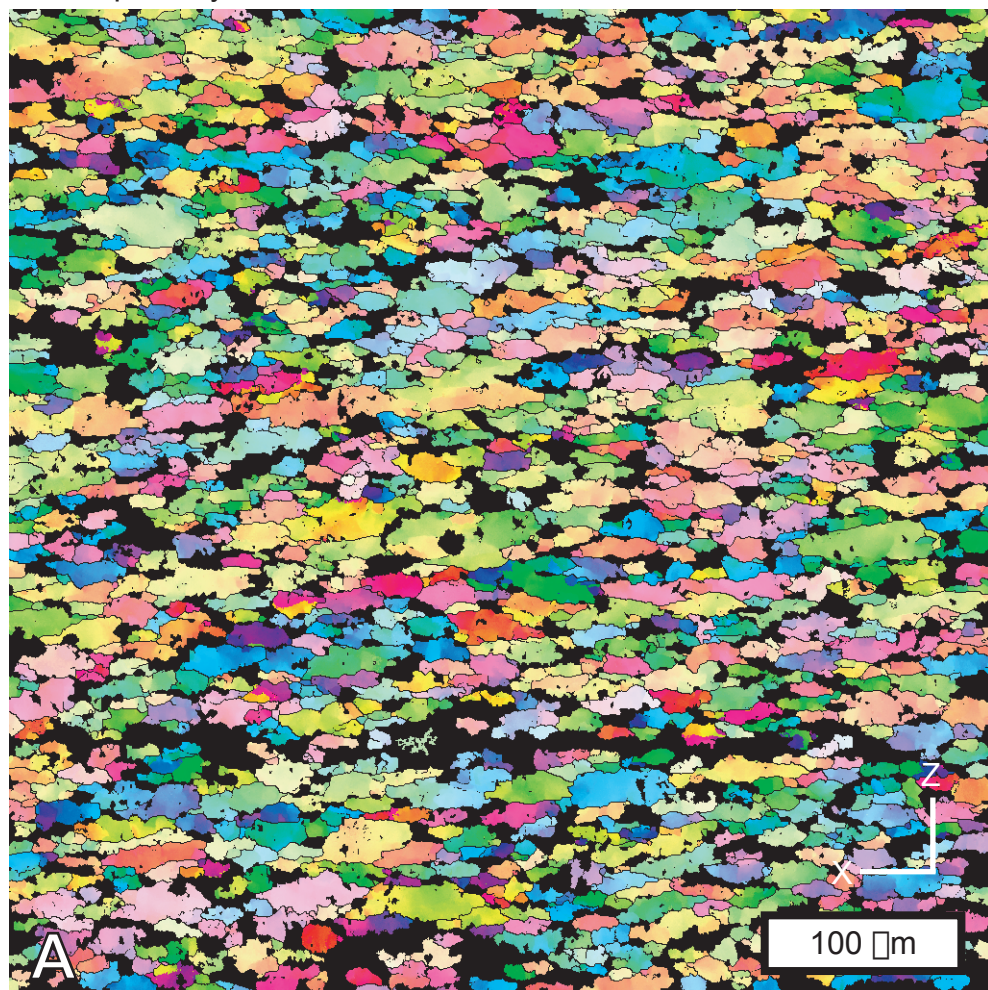B is an enlargement of the inset marked on A, showing detail of locally thick $quartz_{2,2}$ mantles.
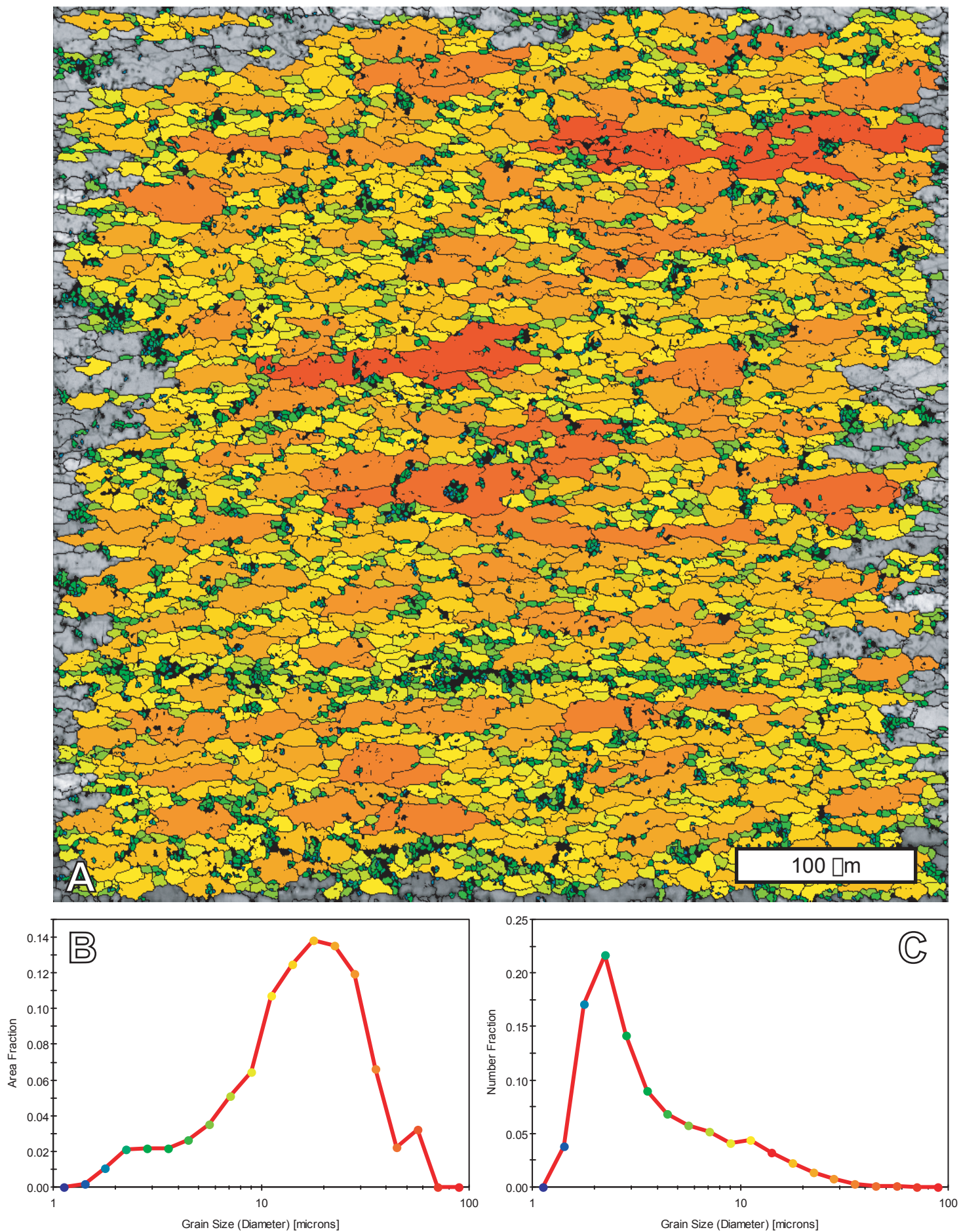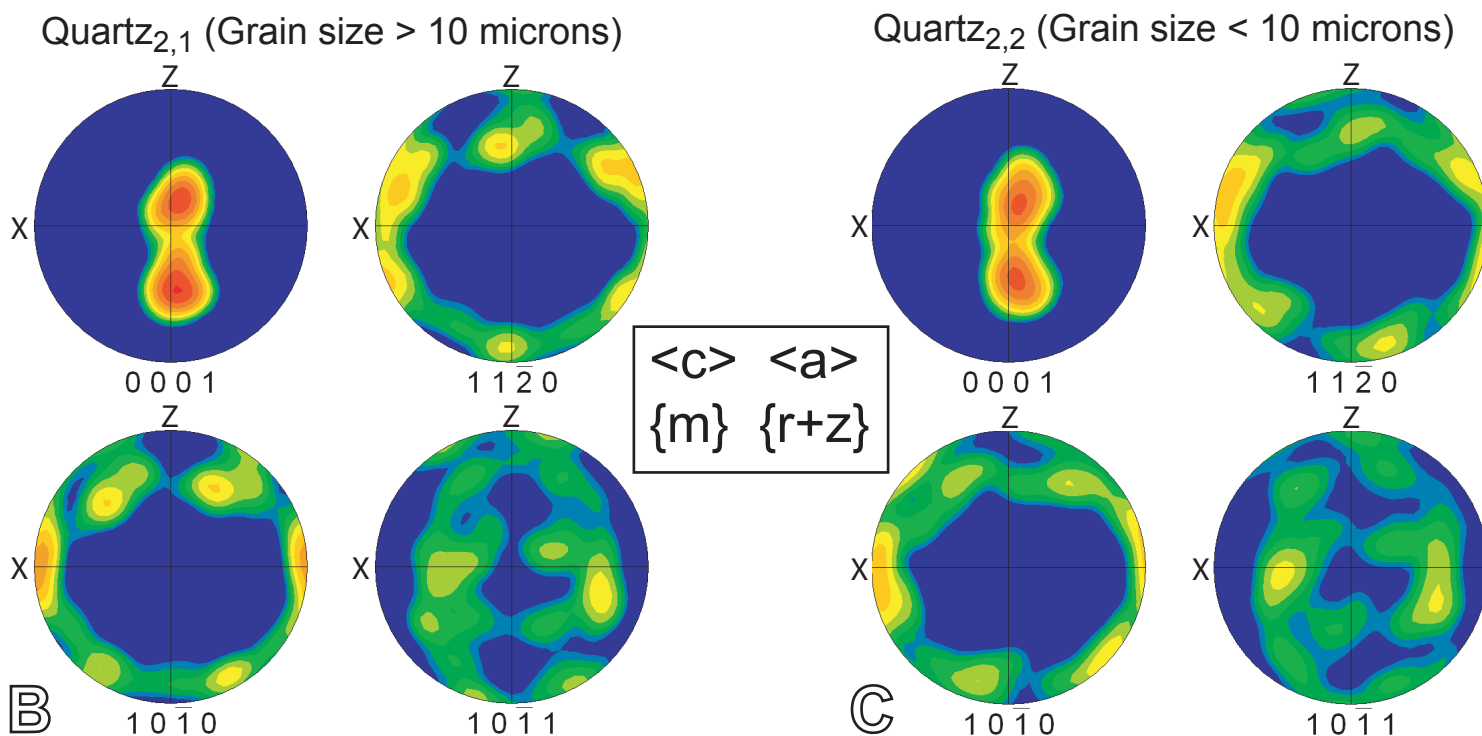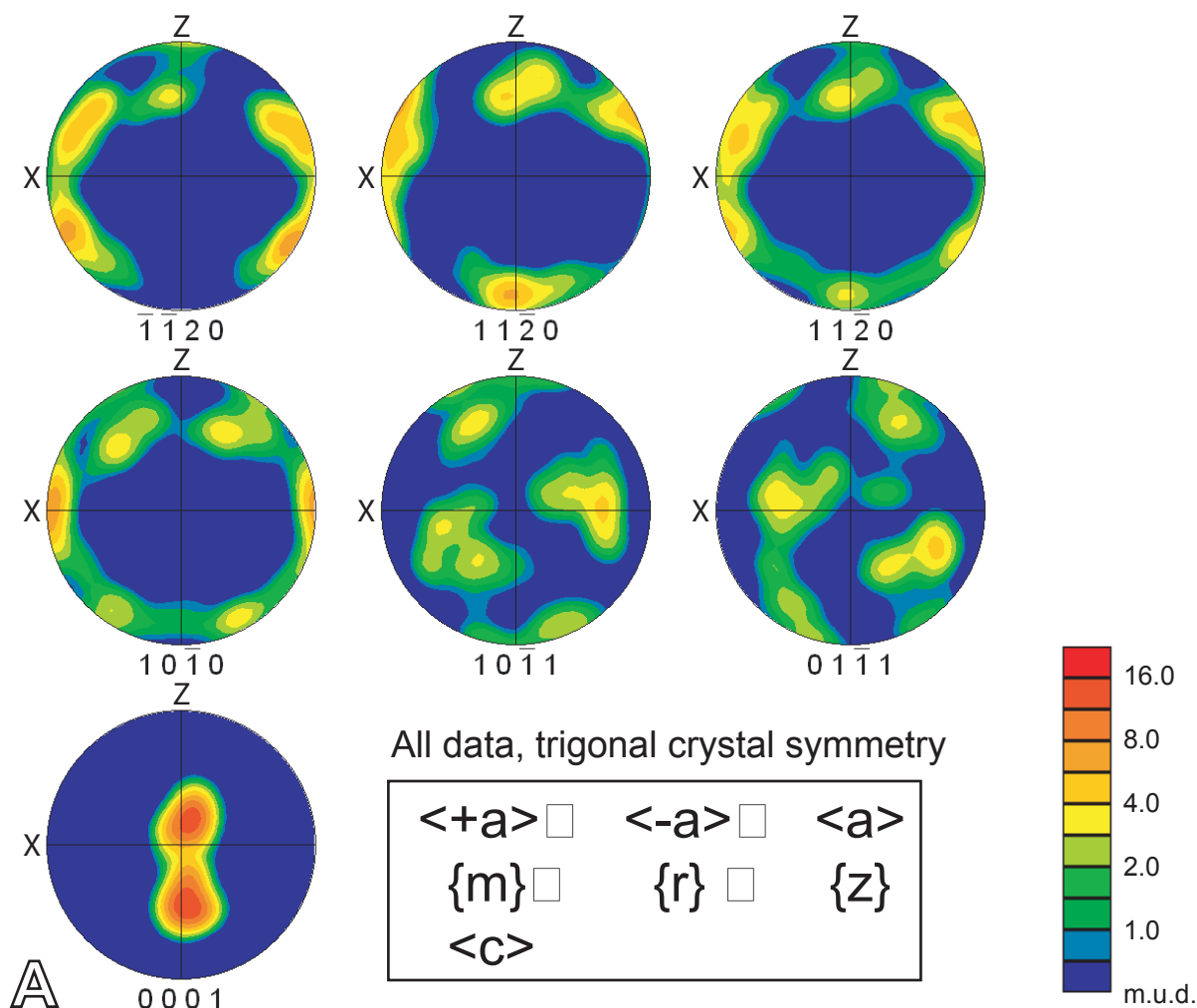
Appendix Figure DR2: A: EBSD derived grain map on an area of 500 x 500 μm with 0.5 μm steps. Color scheme is marked in grain size histograms: B: for area fraction, C: for number fraction.
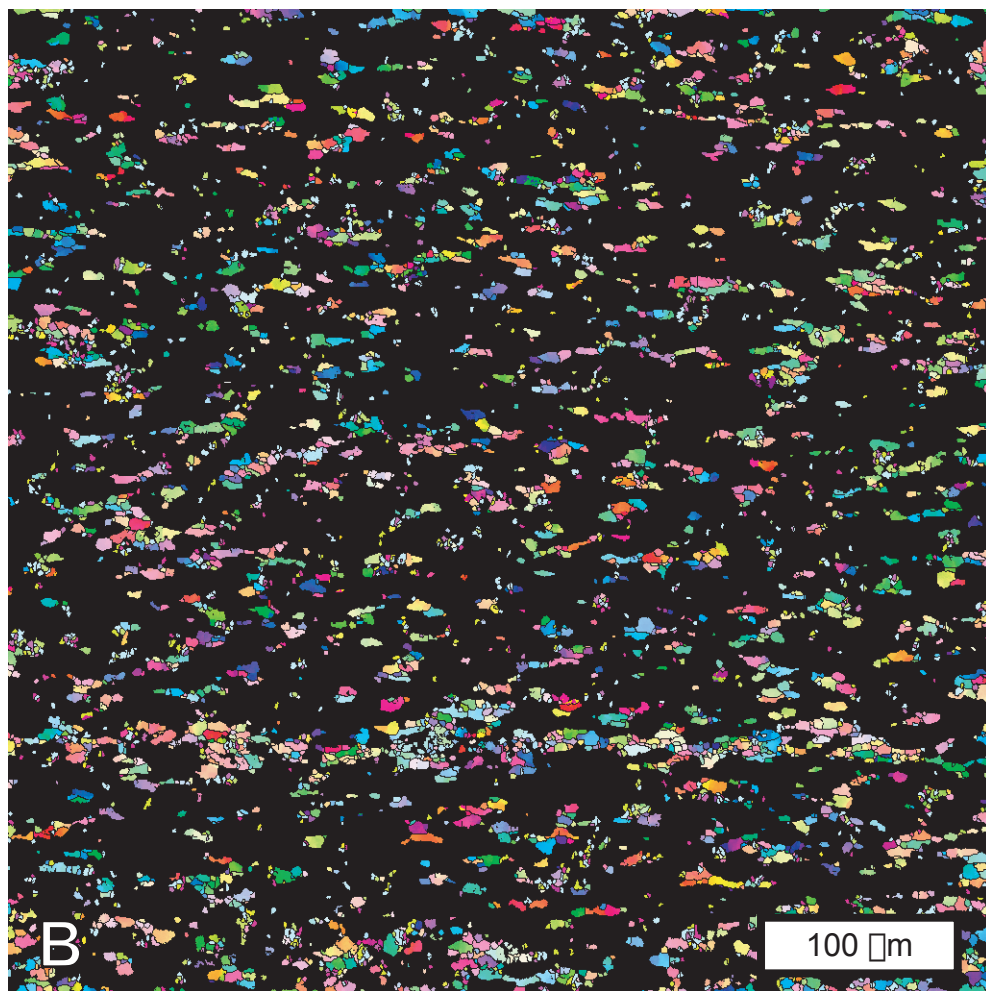
Appendix Figure DR3:
EBSD derived grain maps of an area of 500 x 500 μm with pixel size of 0.5 μm. Crystal orientations are presented as an inverse pole figure map for the foliation normal, assuming hexagonal crystal symmetry. A: Grains with equivalent diameters > 10 μm. B: Grains with equivalent diameters < 10 μm (and > 1.3 μm to eliminate artifacts of sampling). C: Color key.
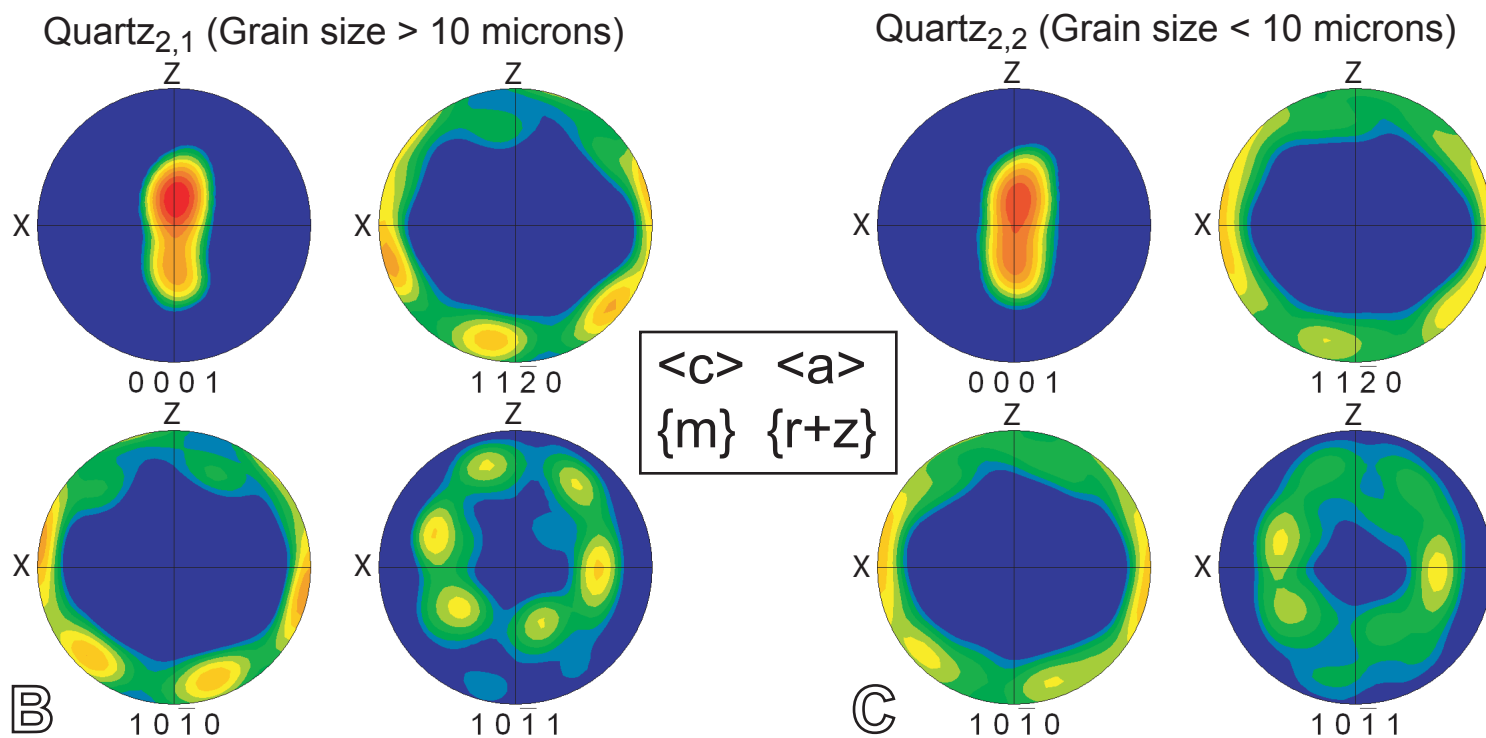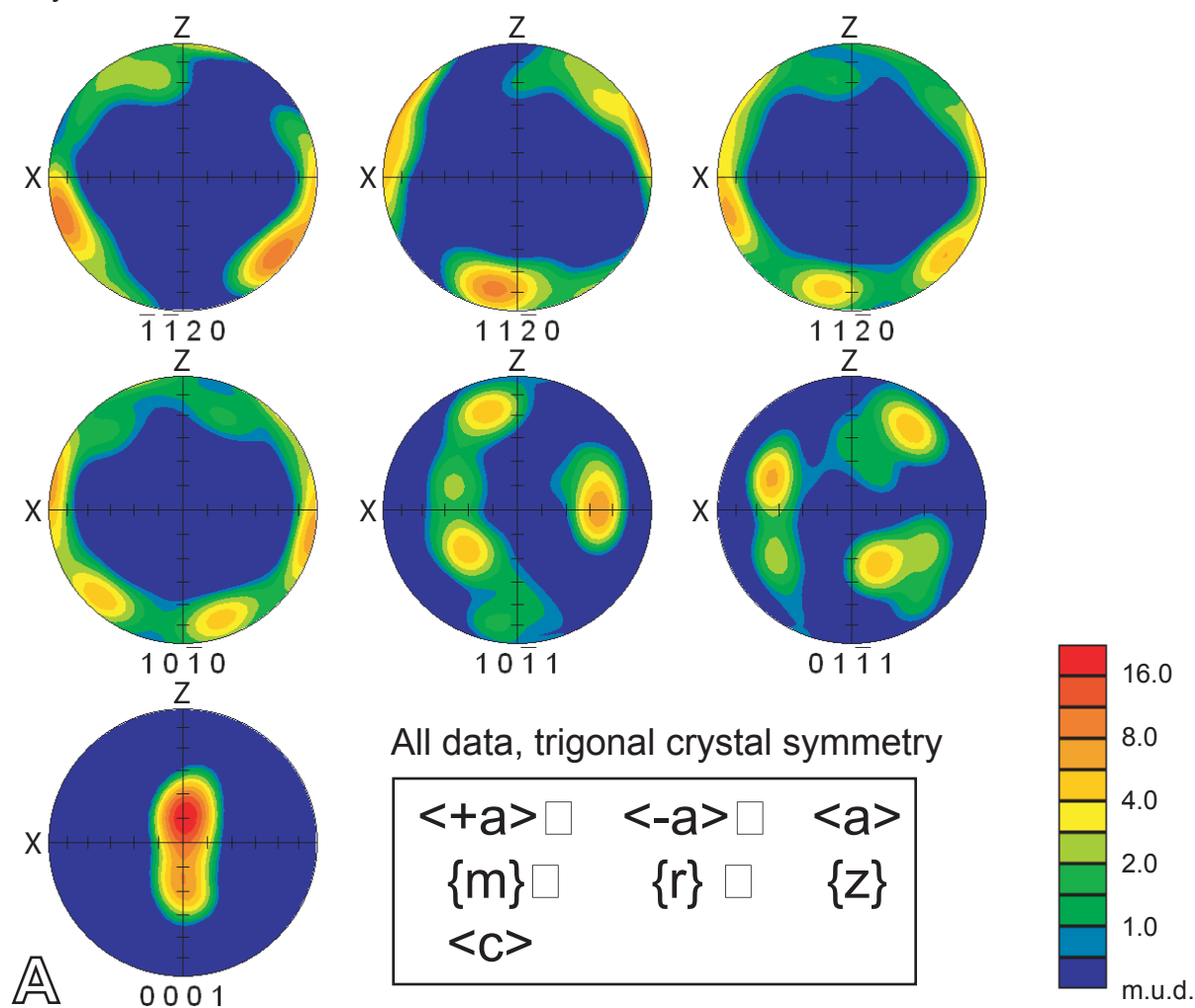
Appendix Figure DR4: Pole figures in equal area projection of upper hemisphere from EBSD-derived grain map (Figs. DR2, DR3). A: All data as measured with trigonal crystal symmetry. B, C: For large and small grain size, respectively, with hexagonal symmetry. Grain size discrimination was done with imposed hexagonal crystal symmetry to neglect Dauphiné twins.

Appendix Figure DR5: Pole figures in equal area projection of upper hemisphere from EBSD derived grain map (Fig. 3). A: All data as measured with trigonal crystal symmetry. B, C: For large and small grain size, respectively, with hexagonal symmetry. Grain size discrimination was done with imposed hexagonal crystal symmetry to neglect Dauphiné twins.