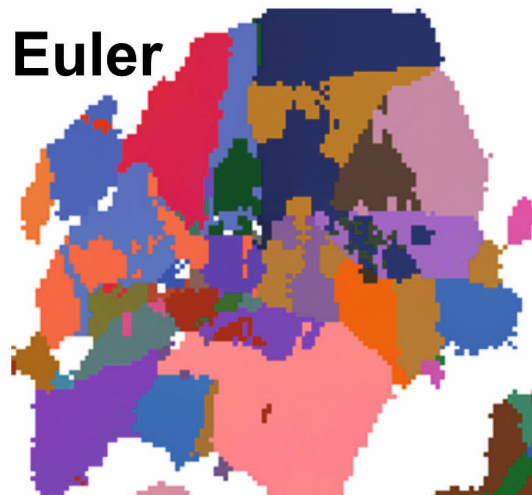
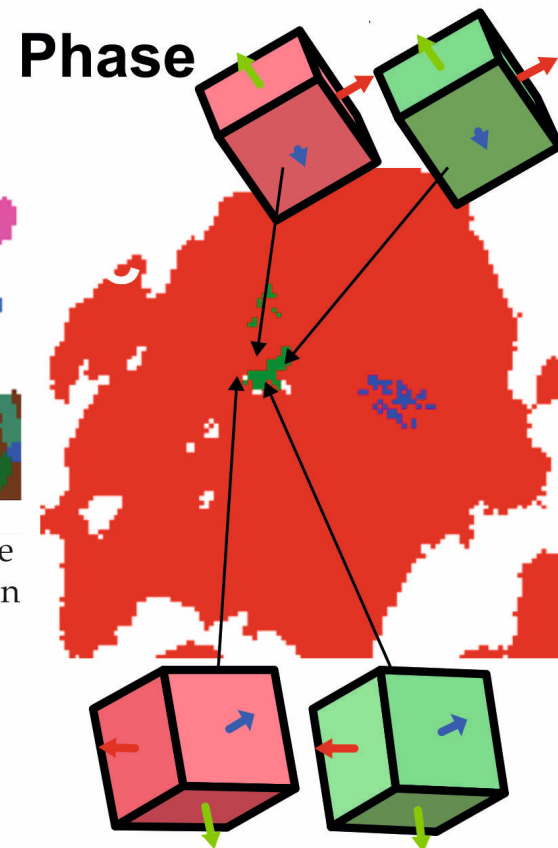


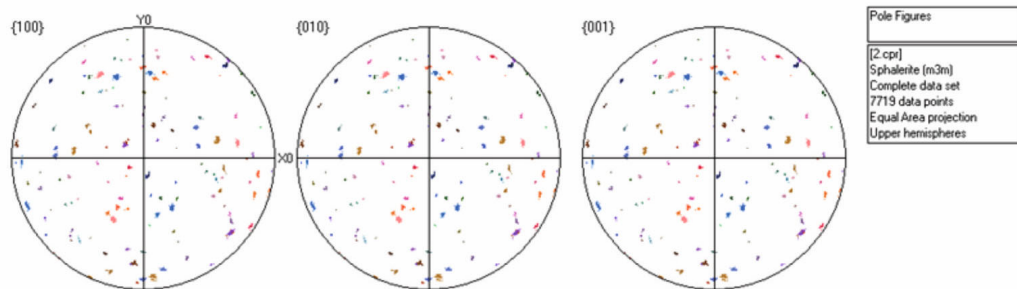
**Figure S2-1a.** SEM image of a polycrystalline sphalerite aggregate.



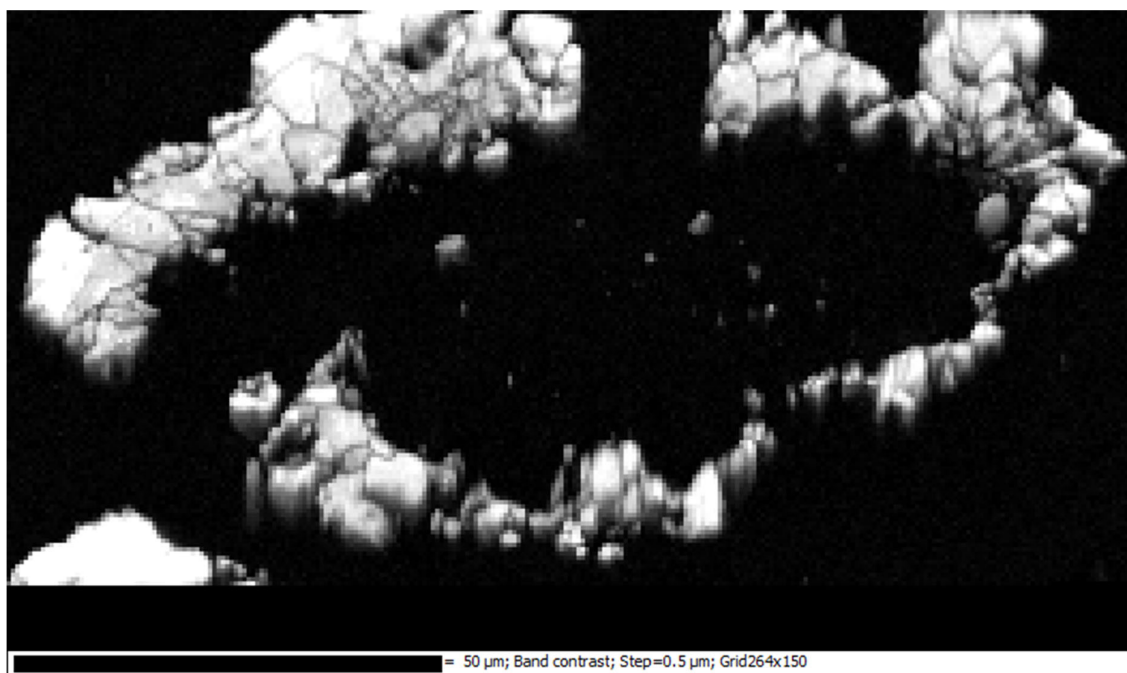
**Figure S2-1b.** Sphalerite, wurtzite and galena crystals orientation in Euler Colors.



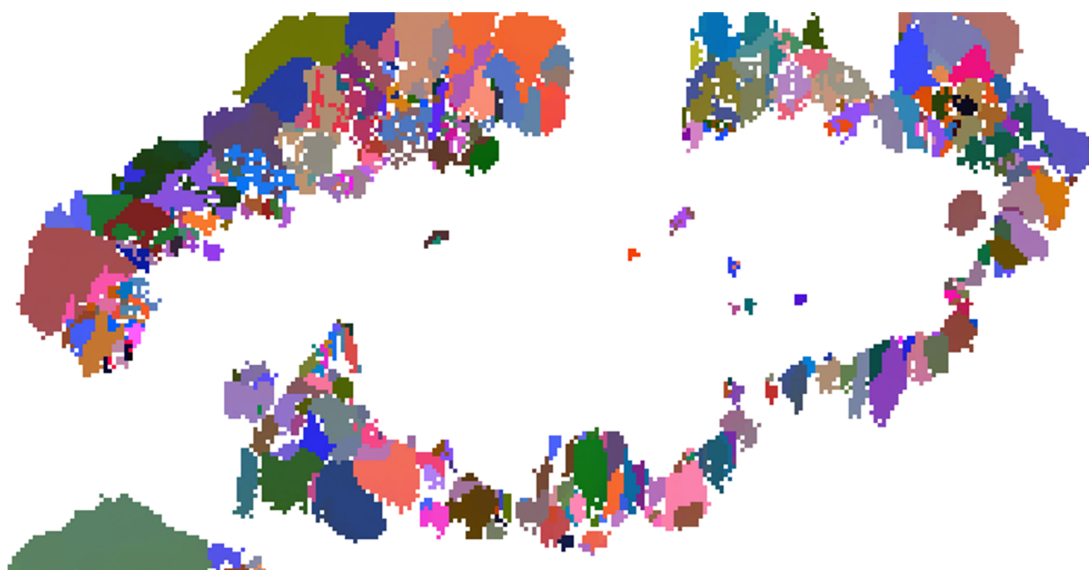
**Figure S2-1c.** Phase map showing the inclusions of wurtzite (blue) and galena (green) in sphalerite (red). Cubes schematically represent crystal cells orientations of galena and sphalerite.



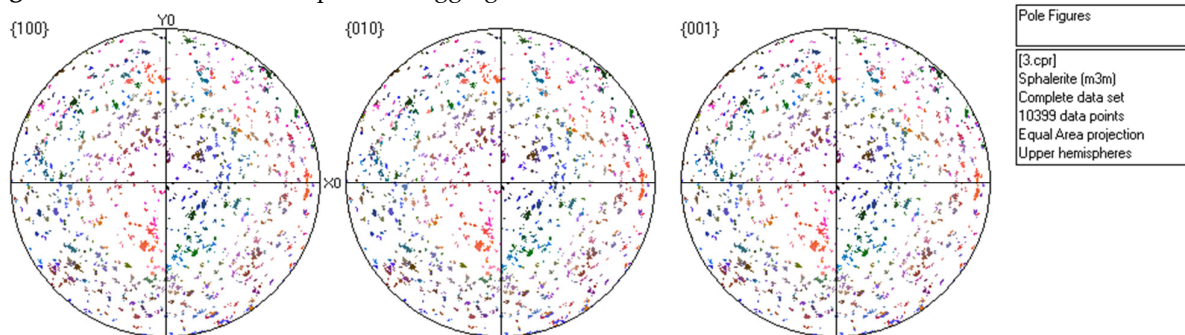
**Figure S2-1d.** Pole figures of sphalerite (each point retains the color from the Euler color scheme)



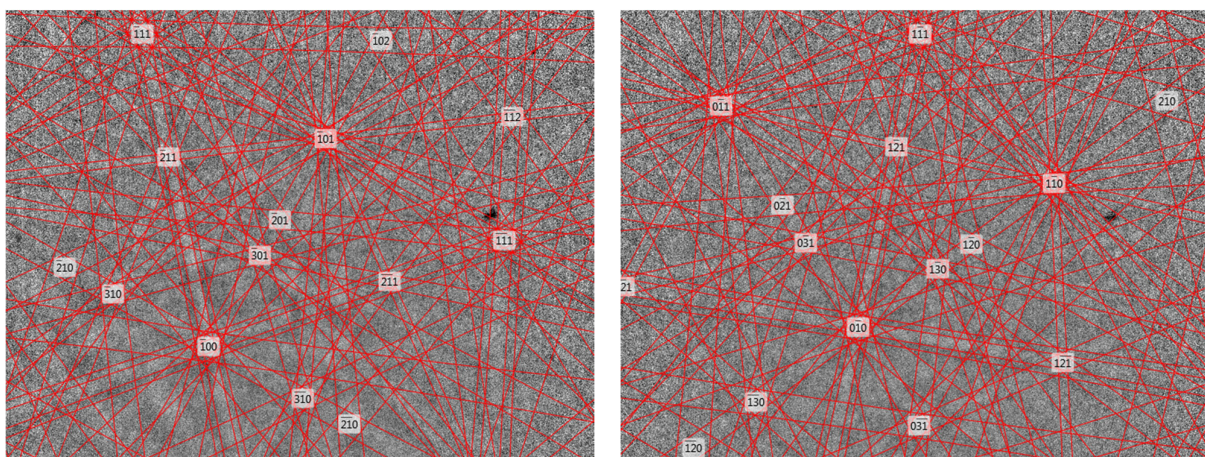
**Figure S2-2a.** SEM image of a polycrystalline sphalerite aggregates.



**Figure S2-2b.** Orientation of sphalerite aggregates in Euler colors.



**Figure S2-2c.** Pole figures (each point retains the color from the Euler color scheme).



**Figure S2-3.** The Kikuchi pattern of Cd-bearing sphalerite: 10 bands at 0.51MAD (left) and 12 bands at 0.48MAD (right).