Curvature distributions of serrated grain boundaries

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Grain boundary morphologies of sheared quartz aggregates deformed under higher greenschist facies condition collected from Hatagawa mylonite zone have been investigated by means of the curvature distribution. Serration of grain boundary in a highly strained grain seems to be controlled by the misorientation and spacing of subgrain boundaries developed in the grain. We have demonstrated that grain boundary serrations have a common curvature distribution pattern and this morphological feature can be used for determination of direction of grain boundary migration.