

Abstract Submitted
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Microstructural investigations of 0.2% carbon content steel SAJ-JAD TOLLABIMAZRAEHNO, KURT HINGERL, Johannes Kepler University —
The effect of thermal annealing to get different phases on low carbon steel was investigated. Steel sheets (0.2 wt. % C) of 900 μm thickness were heat treated to produce different structures. All the samples have the same starting point, transformation to coarse austenite at 900 degree Celsius. The nano indentation results revealed that samples have different hardness. By making conventional SEM micrographs, focus ion beam maps, and Electron backscatter diffraction (EBSD) the microstructural development and grain boundary variation of transformed phases martensite, bainite, tempered martensite and different combination of these phases were studied.

Sajjad Tollabimazraehno

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