Effects of widening during rolling on the subsequent recrystallization kinetics of copper

Recrystallization kinetics in copper cold-rolled to 90% reduction, with and without significant widening, was investigated by electron backscatter diffraction. It was found that the recrystallization process was slightly retarded, and the development of the cube recrystallization texture was largely inhibited in the widening sample. Cube grains were observed to have a growth advantage by a factor of 2 in the non-widening sample, while this growth advantage was not observed in the widening sample. The development of the cube texture in the two samples is discussed. © (2013) Trans Tech Publications, Switzerland.

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