عنوان مقاله:

Enhanced mechanical properties of dual phase steel by simple thermomechanical processing route

محل انتشار:

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خلاصه مقاله:

The effect of the cold rolling and intercritical annealing upon the tensile properties of dual phase(DP) steel was evaluated. It was shown that fine-grained DP steel with chain-network martensitemorphology can be readily obtained by carefully controlled intercritical annealing of cold deformedmartensitic microstructure. As result, DP300/600 steel with low yield ratio, high tensile strength,and good ductility was obtained. Continued intercritical annealing beyond the optimum value resultedin the grain growth of ferrite and fading of the chain-network martensite morphology, which werefound to be responsible for the deterioration of the tensile properties.

کلمات کلیدی:

Dual phase steels; Grain refinement; Distribution of martensite; Mechanical properties; Strain hardening rate