

## Title (en)

METHOD OF PRODUCTON OF A HIGH STRENGTH STEEL EXHIBITING GOOD DUCTILITY VIA QUENCHING AND PARTITIONING TREATMENT BY ZINC BATH

## Title (de)

HERSTELLUNG EINES HOCHFESTEN STAHL MIT GUTER DUKTILITÄT MITTELS ABSCHRECK- UND PARTITIONIERUNGSBEHANDLUNG DURCH EIN ZINKBAD

## Title (fr)

PROCÉDÉ DE PRODUCTION D'UN ACIER À HAUTE RÉSISTANCE MÉCANIQUE ET À BONNE DUCTILITÉ PAR TRAITEMENT DE TREMPÉ ET DE PARTITIONNEMENT EN BAIN DE ZINC

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## Abstract (en)

[origin: US2014338797A1] Steel with high strength and good formability is produced with compositions and methods for forming austenitic and martensitic microstructure in the steel. Carbon, manganese, molybdenum, nickel copper and chromium may promote the formation of room temperature stable (or meta-stable) austenite by mechanisms such as lowering transformation temperatures for non-martensitic constituents, and/or increasing the hardenability of steel. Thermal cycles utilizing a rapid cooling below a martensite start temperature followed by reheating may promote formation of room temperature stable austenite by permitting diffusion of carbon into austenite from martensite.

## IPC 8 full level

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