

Title (en)
SHAPE MEMORY ALLOY CONDUCTOR RESISTS PLASTIC DEFORMATION

Title (de)
FORMGEDÄCHTNISLEGIERUNGSLEITER MIT BESTÄNDIGKEIT GEGENÜBER PLASTISCHER VERFORMUNG

Title (fr)
CONDUCTEUR D'ALLIAGE À MÉMOIRE DE FORME RÉSISTANT À LA DÉFORMATION PLASTIQUE

Publication
EP 3063308 A4 20180404 (EN)

Application
EP 14857570 A 20141103

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Abstract (en)
[origin: WO2015066603A1] A conductor that resists plastic deformation is provided for an electronic signal-carrying or electric power-carrying cable, cable assembly, or device. The conducting element itself has favorable mechanical properties and therefore combines plastic deformation resistance with conductance. In one embodiment, the superelastic conductor is fabricated using a shape memory alloy such that the transformation temperature of the superelastic conductor is set outside the useful operating range of the conductor. In another embodiment, the conductor is fabricated using a shape memory alloy that is nominally in a martensitic phase under stress free conditions. In both embodiments, the conductor microstructures are able to accommodate externally applied strain, bending, deformation, or other external displacement through mechanisms which do not involve plastic deformation.

IPC 8 full level
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