

Title (en)

METHOD FOR DEVELOPING A NICKEL-BASE SUPER ALLOY

Title (de)

VERFAHREN ZUR ENTWICKLUNG EINER NICKEL-BASIS-SUPERLEGIERUNG

Title (fr)

PROCEDE DE PRODUCTION D'UN SUPERALLIAGE A BASE DE NICKEL

Publication

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Application

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Abstract (en)

[origin: WO03040419A1] The invention relates to a method for developing a nickel-base super alloy, consisting of a gamma phase and a gamma ' phase, for the production of monocrystalline or specifically solidified substance bodies. The invention is characterized in that the properties of nickel-base super alloys, exhibiting a volume proportion of at least 50 %, are optimized after degradation at room temperature, by selecting the composition of the alloy in such a way that a high as possible positive lattice dislocation (delta) is obtained at room temperature between the gamma phase and the gamma ' phase. As a result the apparent limit of elasticity at room temperature after degradation is relatively high and only a small difference of apparent limits of elasticity occurs between the initial state and a degraded state.

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