

Method for producing monocrystalline structures

Abstract of disclosure

In the method for manufacturing monocrystalline structures, parts or workpieces of metallic super-alloys on substrates with a monocrystalline structure or monocrystalline structures, the surface of the substrate is melted with an energy beam of high energy density from an energy source. The material which is to be introduced into the monocrystalline structure is supplied to the melted region of the substrate. The supplied material is completely melted. The energy input with the energy beam is regulated and/or controlled in such a manner that the speed of solidification and the temperature gradient lie in the dendritic crystalline region in the GV diagram, outside the globulitic region.

(Fig. 1)



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