POWDER MIXTURE SUITABLE FOR SINTERING TO FORM A SELF-LUBRICATING SOLID MATERIAL

A B S T R A C T

The invention relates to a novel self-lubricating solid material; to a method of preparing such a material from a powder mixture; to said powder mixture; and to mechanical parts made of said novel material. Said powder mixture comprises a powder of a metal alloy that is a precursor for the matrix of said material, particles of a first solid lubricant such as CeF_3 that are for insertion in said matrix without reacting with said metal alloy, and particles of a second solid lubricant such as WS_2 or MoS_2 for reacting with a component of said metal alloy during sintering of the powder to form a lubricating phase. Said material can be used for fabricating a bushing (11) that is to receive a root (7) of a variable-pitch vane (3) of an airplane turbojet compressor.

Figure 1