

HIGH MODULUS METALLIC COMPONENT FOR HIGH VIBRATORY OPERATION

5

ABSTRACT OF THE DISCLOSURE

A high modulus component, such as an aircraft engine turbine blade, is formed from a base metal that has a high modulus crystallographic orientation that is aligned with the primary, i.e. radial, direction of the turbine blade. The base metal is Ni, Fe, Ti, Co, Al, Nb, or Mo based alloy. Alignment of a high modulus direction of the base metal with the primary direction provides enhanced high cycle fatigue life.

10

Figure 3