

METHOD FOR DIFFUSION BONDING METALLIC COMPONENTS WITH NANOPARTICLE FOIL

ABSTRACT

A method for joining metal parts of a turbine engine component, the method comprising positioning a nanoparticle foil between faying surfaces of the metal parts, and diffusion bonding the metal with the nanoparticle foil, where the nanoparticle foil has a film thickness of about 100 micrometers or less, and comprises an alloy having an average particle size of about 500 nanometers or less.

Figure 1