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(54) **LASER BASED METAL DEPOSITION OF IMPLANT STRUCTURES**

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(57) **ABSTRACT**

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A method of depositing a hard wear resistant surface onto a porous or non-porous base material of a medical implant. The medical implant device formed by a Laser Based Metal Deposition (LBMD) method. The porous material of the base promotes bone ingrowth allowing the implant to fuse strongly with the bone of a host patient. The hard wear resistant surface provides device longevity when applied to bearing surfaces such as artificial joint bearing surface or a dental implant bearing surface.

