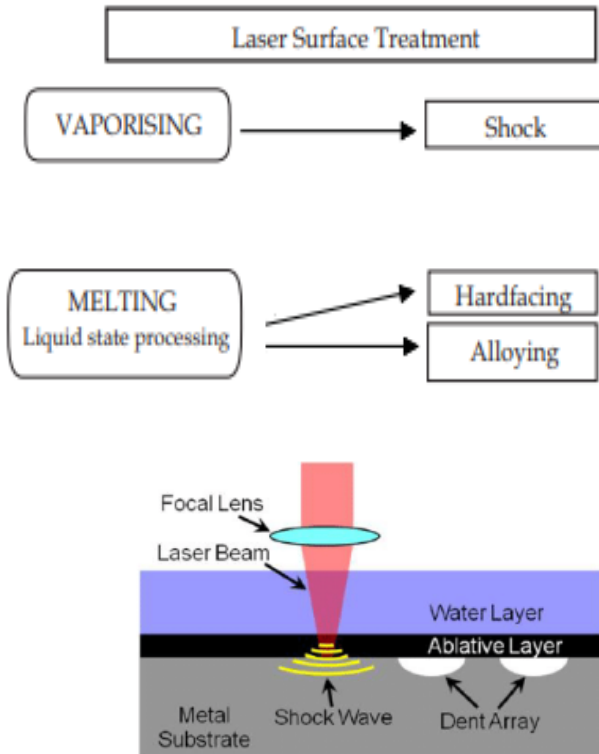


LASER Shock Peening (LSP) 경화기술



Laser Peening and Wear. Figure 1
LSP Mechanism

The pressure wave is the mechanical process that plastically deforms the surface. After the shock wave disperse, the deformed region presents a state of compressive residual stress due to constraints from the surrounding material. In combination with an automatic position system, LSP can be adapted to various peening patterns such as overlapping dents or multiple peening

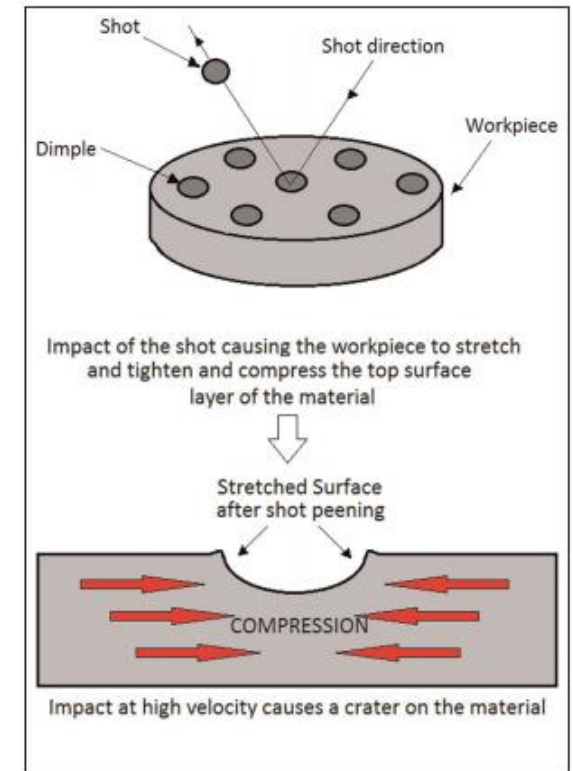
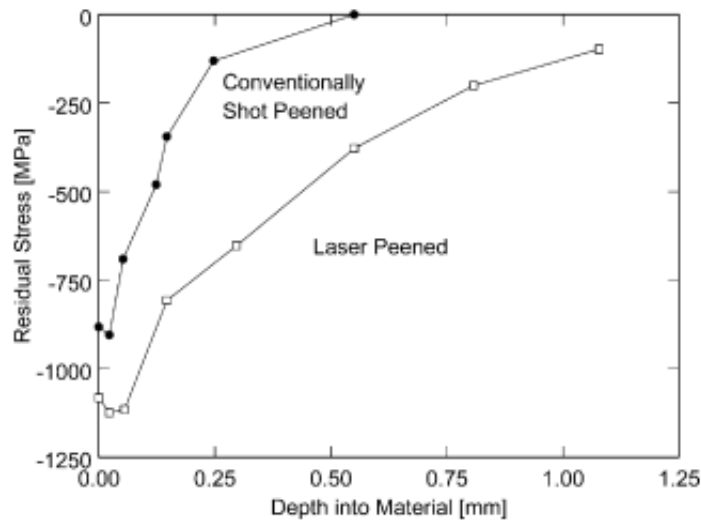
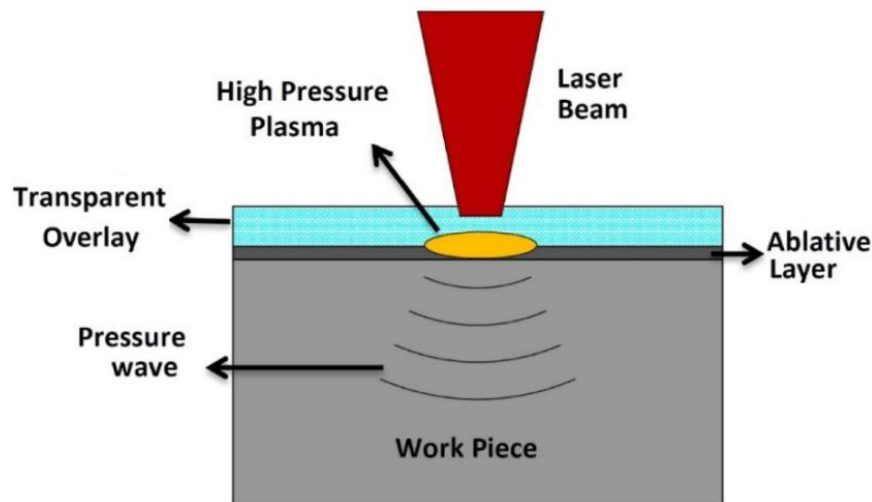
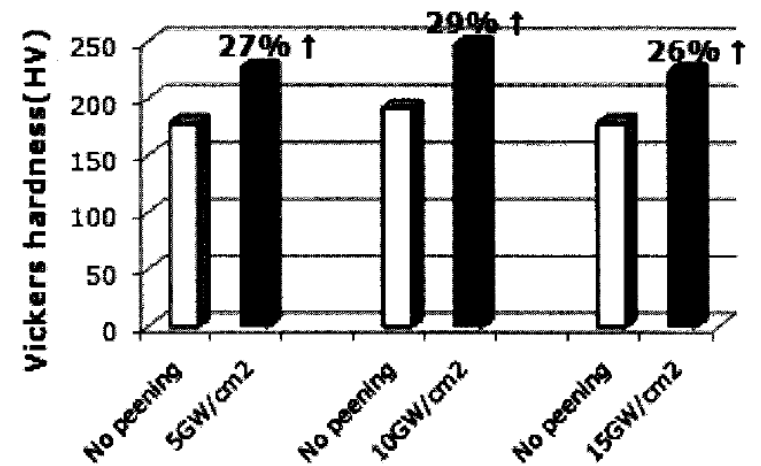


Figure 1. (a) A schematic diagram of the mechanical shot peening of a circular disc and (b) a schematic diagram of the workpiece under plastic deformation after being compressed by a shot.



Residual stresses in the surface of Inconel 718 induced by laser peening and conventional shot peening [33].



Effects of laser energy density on the vickers hardness of STS304.