PHASES OF DEPOSITED CARBON FILMS BY PULSED LASER DEPOSITION - REVIEW

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ABSTRACT

Carbon is considered to be a crucial element in engineering because of its allotropy phenomena, as the deposition of carbon leads to different phases with various properties. Surfaces are the fundamental sites of contact between a material and area where it exists. Surface treatment provides a means to overcome any problem between the surface and its surrounding. Pulsed Laser Deposition (PLD) is found to be among the more substantial depositing techniques in solid state physics and analytical chemistry. It is an excellent technique for tissue engineering applications used in depositing different structures of carbon like thin films. This paper reviews the technique of pulsed laser deposition as a method of physical vapor depositing, as well as its primary steps. Many researchers used this method to deposit carbon on different substrates, in addition to different structures of carbon such as diamond, graphite, graphene, pyrolytic carbon, nanotubes, and amorphous carbon.

KEYWORDS: Carbon, Physical Vapor Deposition (PVD), Pulsed Laser Deposition (PLD) & Surface Engineering

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