

Abstract Submitted
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Structural investigation of hydrogenated amorphous Carbon thin films deposited by PECVD SEYED IMAN HOSSEINI, BABAK SHOKRI, MARZIEH ABBASI FIROUZJAH, SAEED KOUSHKI, MEHDI SHARIFIAN — Hydrogenated amorphous Carbon thin films were deposited on Glass and Silicon substrates by low pressure and temperature radio frequency and microwave plasma enhanced chemical vapor deposition. Different mixtures of Methane and Hydrogen were used for deposition of the films. The influences of feed gases ratio and power of generators on the composition, roughness and thickness of the deposited films were investigated. The Raman G peak position shifts toward lower wave numbers for glass substrates by increasing the gas ratio (hydrogen to methane) but has less effect on Si substrate. For Si substrates this shift occurs by increasing the power of generator.

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