

# **STUDIES ON NUCLEATION PROCESS IN DIAMOND CVD: AN OVERVIEW OF RECENT DEVELOPMENT**

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## **Abstract**

This paper presents an updated and systematic overview of the recent development in studies on nucleation process in diamond CVD. The nucleation mechanisms are discussed, and the nucleation enhancement methods developed to date are summarized. The effects of surface conditions and deposition parameters on the surface nucleation are described. Finally, a brief description of theoretical and modeling studies on the surface nucleation is given.