

# **NUCLEATION KINETICS OF DIAMOND ON CARBIDE-FORMING SUBSTRATES DURING CVD — I. TRANSIENT NUCLEATION STAGE**

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## **ABSTRACT**

This paper presents a theoretical study on the initial stage of diamond nucleation during CVD. A kinetic model is developed to investigate the time evolution of diamond nucleation on carbide-forming substrates. The calculated results provide some insight into the effects of substrate materials, surface diffusion and adsorption state on diamond nucleation kinetics.

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