

Abstract Submitted  
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**Growth of the BN – nano - structured materials using borazine decomposition by Laser Chemical Vapor Synthesis** ARTURO HIDALGO, VLADIMIR MAKAROV, DACHUN HUANG, GERARDO MORELL, BRAD WEINER — We describe BN nanostructured materials growth by Laser Chemical Vapor Synthesis (LCVS) using the precursor borazine  $B_3N_3H_6$ . As result due to laser induced creation of the active chemical intermediates in the bulk volume, and further development of the “dark” chain processes in the borazine vapor with formation of the BN- nano-tubes and hydrogen gas. The phenomenological model qualitatively describing the observed phenomenon was developed and applied to explanation of the studied effects. The variation of radiation density ( $J/cm^2$ ) for both harmonics and pressure is used for optimized the amount obtained.

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