

**Title:** Laser-assisted deposition of thin films from photoexcited vapour phases

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**Abstract:** Laser-assisted chemical vapour deposition (LCVD) has been extensively studied in the last two decades. A vast range of applications encompass various areas such as microelectronics, micromechanics, microelectromechanics and integrated optics, and a variety of metals, semiconductors and insulators have been grown by LCVD. In this article, we review briefly the LCVD process and present two case studies of thin film deposition related to laser thermal excitation (e.g., boron carbide) and non-thermal excitation (e.g., CrO(2)) of the gas phase.

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