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Laser applications in CVD

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ABSTRACT

With laser light of suitable wavelength and absorbed energy, spatial control and in-situ analysis of CVD processes can be achieved. Using UV photochemical decomposition of surface adsorbed precursors, patterned deposition of pure metal films with sub- μm accuracy can be done. This will be shown for Al as an example [1]. For the laser activated generation of free standing three-dimensional micro-objects, processes [2] with and without preformed substrate have been used and will be described.

[1] F. Foulon, M. Stuke, Appl. Phys. A56(1993) 267-273

[2] O. Lehmann, M. Stuke, Appl. Phys. A53(1991)343-345