

## 二(乙酰丙酮根)合铜(II)热分解动力学研究

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摘要 金属有机化合物气相化学沉积(OMCTD)形成铜膜常用的母体化合物是铜(II)的 $\beta$ -二酮类配合.

本文首次采用CW二氧化碳激光研究二(乙酰丙酮根)合铜(II)[Cu 关键词 [表面](#) [铜络合物](#) [石英](#) [沉积](#)

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### Kinetics on the thermal deposition of copper( II )acetylacetonate

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**Abstract** The kinetics of the thermal decomposition of Cu(acac)<sub>2</sub> (Hacac = acetylacetonate) on quartz substrate was studied. Heating of the substrate was accomplished with a CO<sub>2</sub> laser beam. The deposition of a copper film by this process was dependent on the laser intensity and an intensity threshold was observed above which linear kinetics were determined. The decomposition of Cu(acac)<sub>2</sub> was first order. The rate controlling step was surface reaction on the substrate at low laser intensity and transport of precursor mols. at high laser intensity.

**Key words** [SURFACES](#) [COPPER COMPLEX](#) [QUARTZ](#) [SEDIMENTATION](#) [THERMAL DECOMPOSITION](#) [ACETOPROPANONE](#) [KINETIC STUDY](#)

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