

几种碳卤化物多通道激光化学的研究

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摘要 本文用CW和TEA CO₂激光器研究了F12(CF₂Cl₂)、F114(CF₂ClCF₂Cl)和F22(CF₂HCl)等碳卤化合物的激光诱导解离反应,实验发现,在激光作用下,这些化合物的解离方式不仅与化合物的性质有关,还与激光的能量密度密切相关;F22的激光解离为一级反应,并存在“瓶颈效应”。

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Infrared laser chemistry of multichannel decomposition of several fluorochlorocarbons

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Abstract The laser induced decomposition of CF₂Cl₂, CF₂ClCF₂Cl, and CHF₂Cl was studied by means of CW and TEA CO₂ laser resp. The main aspects studied were the channel competitive processes and the relations between the reaction channels and laser energy fluence. The results show that the decomposition channels depend on both laser energy fluences and nature of compounds. The laser decomposition of F22 is first order reaction and there is bottle-neck effect in F22 laser induced decomposition.

Key words [HALIDE](#) [DECOMPOSITION REACTION](#) [CHANNELS](#) [LASER CHEMISTRY](#) [CHLORO FLUOROCARBONS](#)

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