

In-situ Diagnostics of Carbon Nanotube Production by Laser Ablation

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This presentation involves emission and laser induced fluorescence (LIF) data obtained during carbon nanotube production by double pulse laser oven method. Recent LIF data of nickel indicate longer decay (of the order of few milliseconds) of nickel atomic vapor. This contrasts with less than a millisecond decays of C_2 and C_3 observed in the plume. The possible role of nickel in the kinetics of carbon nanotube formation will be discussed. Evolution of the laser ablated plume is recorded as plume images which are correlated with the transient emission and LIF data.¹

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