

Abstract Submitted
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Time-Dependent Waveforms Associated with Optogalvanic Transitions Excited in CO Gas XIANMING HAN, VLADIMIR POZDIN, Butler University, IN, PRABHAKAR MISRA, Howard University, DC, CHANDRAN HARI-DAS, Belfry School, KY — We will present our experimental studies on the optogalvanic effect (OGE) in a hollow cathode lamp filled with CO gas. Our theoretical model, based on appropriate rate equations, predicts that the observed signals should be described in terms of a sum of exponential functions. We have also developed a least-squares fitting routine that is based on the Monte Carlo method and used it to fit the optogalvanic waveforms. We were able to fit the observed OG transitions in CO using either three or four exponential functions and the fits proved to be excellent with very small residuals.

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