

Analysis of laser initiated electric discharge spark in atmosphere: clustering classification method

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Time resolved analysis of spectra of laser initiated electric discharge spark in atmosphere is presented here. Spectral images of optical emission of atmospheric plasma are obtained by a streak camera. Machine learning (ML) techniques are used more and more for analysis of LIBS data [1-6]. Here, large set of measured spectra are classified using Principal component analysis and clustering algorithms. For machine learning approach to data analysis we use Solo software package (Version 8.8, Eigenvector Research Inc, USA) [7].

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