

Lopez, A.J., G. Nicolas, M.p. Mateo, A. Ramil, V. Pinon, A. Yanez  
2006. *LIPS and Linear Correlation Analysis Applied to the Classification of Roman Pottery Terra Sigillata*. *Applied Physics A: Materials Science & Processing* 83(4): 695-698

The authors' main objective in this article is to display how Laser Induced Plasma Spectroscopy (LIPS) can lead to assignment of Terra Sigillata pieces to their places of origin. The article uses 25 samples of Terra Sigillata from different regions, Hispanic, African, and Gaulish. The author uses linear correlation to compare the LIP spectra data. The article analyzes the data by taking the correlation coefficient from each sample and comparing them to observe if the LIP spectra data is a reliable method to trace places of origin.

15 Hispanic pieces are compared to three different reference Terra Sigillata samples from the three regions. The correlation method is applied to quantify the similarity between their spectra. The authors did this with all the pieces from each region but only display the pieces from the Hispanic regions. The authors' data revealed that there is a high correlation between the samples from the same provenance. The data gathered from the Hispanic regions had the highest correlation with the reference sample from the Hispanic region. The article does a good job of displaying the correlation data but relies too heavily of descriptive statistics to make their point.