Accepted Manuscript

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PII: S0584-8547(17)30536-0

DOI: doi:10.1016/j.sab.2018.05.026

Reference: SAB 5453

To appear in: Spectrochimica Acta Part B: Atomic Spectroscopy

Received date: 10 November 2017

Revised date: 17 May 2018 Accepted date: 25 May 2018

Please cite this article as: Asier García-Escárzaga, Leon J. Clarke, Igor Gutiérrez-Zugasti, Manuel R. González-Morales, Marina Martinez, José-Miguel López-Higuera, Adolfo Cobo, Mg/Ca profiles within archaeological mollusc (Patella vulgata) shells: Laser-Induced Breakdown Spectroscopy compared to Inductively Coupled Plasma-Optical Emission Spectrometry. Sab (2017), doi:10.1016/j.sab.2018.05.026

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ACCEPTED MANUSCRIPT

Mg/Ca profiles within archaeological mollusc (*Patella vulgata*) shells: Laser-Induced Breakdown Spectroscopy compared to Inductively Coupled Plasma-Optical Emission Spectrometry

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Abstract

Biogenic carbonate mollusc shells have the unique property of being a durable material found in many archaeological and geological sites, recording in their shell chemical composition the ambient environmental conditions during the mollusc's lifespan. In particular, mollusc shell Mg/Ca ratios have been suggested to be related to seawater temperature, although such a relationship is controversial and appears to be species- and even location-specific. This study investigates the use of Laser-Induced Breakdown Spectroscopy (LIBS) for the rapid

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