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Asier García-Escárzaga, Leon J. Clarke, Igor Gutiérrez-Zugasti, Manuel R. González-Morales, Marina Martinez, José-Miguel López-Higuera, Adolfo Cobo

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Asier García-Escárzaga[1,2]; Leon J. Clarke[3]; Igor Gutiérrez-Zugasti[1]; Manuel R. González-Morales[1]; Marina Martinez[2], José-Miguel López-Higuera[2]; Adolfo Cobo[2*]

[1] Instituto Internacional de Investigaciones Prehistóricas de Cantabria, Universidad de Cantabria. Edificio Interfacultativo, Avda. Los Castros s/n. 39005 Santander, España.

[2] Grupo de Ingeniería Fotónica, Departamento de TEISA, Universidad de Cantabria, Edificio I+D+i de Telecomunicaciones, Avda. Los Castros s/n. 39005 Santander, Spain.

[3] School of Science and the Environment, Faculty of Science and Engineering, Manchester Metropolitan University, Manchester, M1 5GD, UK.

*Corresponding author.

Email addresses:

a.garcia.escarzaga@gmail.com (A. García-Escárzaga), l.clarke@mmu.ac.uk (L.J. Clarke), igorgutierrez.zug@gmail.com (I. Gutiérrez-Zugasti), moralesm@unican.es (M.R. González-Morales), marina.martinez@unican.es (M. Martinez), miguel.lopezhiguera@unican.es (J.M. López-Higuera); adolfo.cobo@unican.es (A. Cobo).

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