

CARACTERIZACIÓN DE AEROSOLES ATMOSFÉRICOS EN LA ANTÁRTIDA



Ref. CTM2017-82929-R
Jesús Anzano & Jorge Cáceres

REUNIÓN FIN DE CAMPAÑA ANTÁRTICA 2020-2021

Madrid, 27 de mayo de 2021

Objetivos científicos de la campaña

Prioridad	Objetivo	Resultados alcanzados	% Completado
Alta	Toma de muestras de aire en la Isla Livingston	Satisfactorios a la espera de los análisis	100%
Alta	Toma de muestras de aire en la Isla Decepción	Satisfactorios a la espera de los análisis	100%

Despliegue instrumental

- Vértice Baliza, Isla Decepción-ET



- Monte Sofía, Isla Livingston-CSIC



Contador de partículas- KUNAK

Logros Científicos Proyecto 2018 -2021

Science of the Total Environment 665 (2019) 125–132



Contents lists available at ScienceDirect

Science of the Total Environment

journal homepage: www.elsevier.com/locate/scitotenv



Quantification of particulate matter, tracking the origin and relationship between elements for the environmental monitoring of the Antarctic region

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HIGHLIGHTS

- Particulate matter PM₁₀ in Antarctic region (Deception Island) was analyzed.
- Low volume sampler was used to capture the aerosol particles (PM₁₀).
- Enrichment factors of the elements were determined.

GRAPHICAL ABSTRACT



Local and Remote Sources of Airborne Suspended Particulate Matter in the Antarctic Region

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ISSN 2073-4433

Science of the Total Environment 721 (2020) 137702

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Heavy metal transport and evolution of atmospheric aerosols in the Antarctic region

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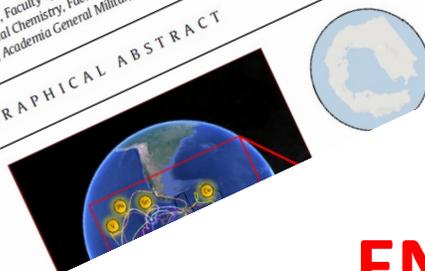
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HIGHLIGHTS

- Atmospheric aerosols PM₁₀ in Antarctic region were analysed by ICP-MS.
- Particulate matter (PM₁₀) was captured through a low volume sampler in filters.
- PCA Analysis was used to determine the correlations between the elements.
- Enrichment factors of Hf, Zr, V, As, Mn.

GRAPHICAL ABSTRACT



Spectrochimica Acta Part B: Atomic Spectroscopy

Volume 180, June 2021, 106191



Analytical note

Multielemental analysis of Antarctic soils using calibration free laser-induced breakdown spectroscopy ☆

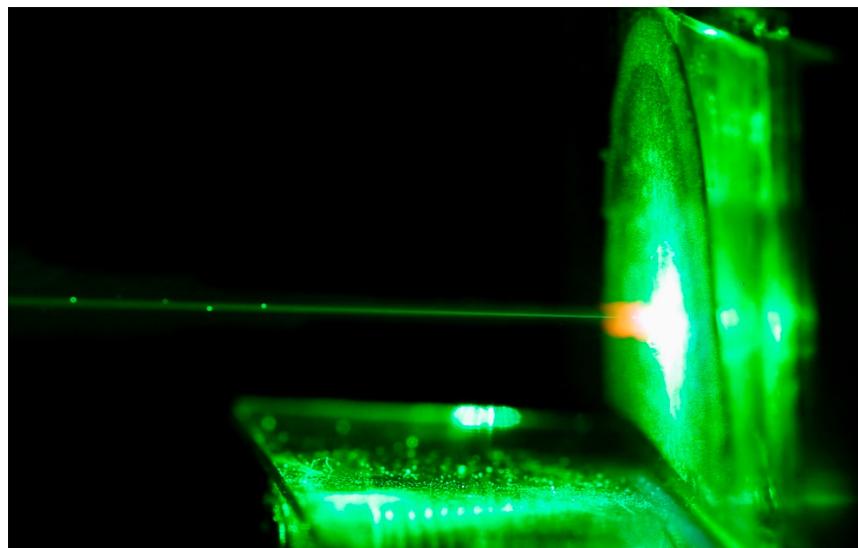
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ENVIRONMENTAL POLLUTION

ANALYTICAL CHIMICA ACTA

Objetivos científicos globales del proyecto actualizados a 27 de mayo de 2021

RESULTADOS	Número
PUBLICACIONES CIENTÍFICAS	6
PUBLICACIONES DE DIVULGACIÓN	2
COMUNICACIONES A CONGRESOS	5



Nuevos retos 2021-2024?

- Caracterización de bio-aerosoles en la Antártida
- Control medioambiental global en la Antártida
- Laboratorio instrumental polar
 - LIBS (tele-LIBS)
 - Raman
 - Imaging

UNIVERSIDADES

- Universidad de Zaragoza
- Universidad Complutense de Madrid
- Universidad de Málaga
- Universidad del País Vasco
- Universidad de Lyon

