

## MULTIELEMENT ANALYSIS IN MUSSELS USING TOTAL REFLECTANCE X-RAY FLUORESCENCE

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Mussels are good sources of proteins, long-chain omega-3 fatty acids, vitamins, and minerals, being recommend as part of a weekly diet. The aim of this study was to evaluate the analytical potential of total reflection X-ray fluorescence (TXRF) technique for the determination of major and trace elements in mussels (*Mytilus galloprovincialis*). Six samples of mussel muscle and digestive tissues were mineralized and analyzed. The identified and quantified elements were Al, P, S, Cl, K, Ca, Cr, Mn, Fe, Ni, Cu, Zn, As, Se, Br, and Pb using Ga as internal standard. The attained results prove that TXRF represents a useful tool for quantifying elements with low detection limits.

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