



## **Contributions to the radiogenic isotopic fingerprint of Tenerife wine from land, sea and air.**

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We present preliminary results of a study to characterise the radiogenic isotopic fingerprint of wines across the island of Tenerife, Canary Islands, Spain, focussing initially upon Sr. The isotopically juvenile nature of Tenerife rocks supports a hypothesis that all biological material grown on Tenerife should be distinct from most other regions on Earth in terms of Sr isotopes, and especially so from the radiogenic Iberian Peninsula. Pilot data largely support this view, yet we also observe clear evidence for an isotopically evolved component in Tenerife wines. In this contribution, we consider that the unique geography of the Canary Islands may help rationalise these observations. The Canaries are adjacent to the most important atmospheric dust source on Earth, the Saharan Desert, which is largely composed of radiogenic sources of Sr. Along with contributions to the Tenerife terroir from atmospheric dust, we also consider the role that sea spray during storm events may play. Should natural processes fail to explain the patterns we observe, anthropogenic mixing during wine-making using components sourced outside the archipelago is a possibility that must be considered, which has implications for consumer confidence and, by extension, the economy of Tenerife.