

Ancient burned Human Remains Probed by Neutron and Optical Vibrational Spectroscopy



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Context

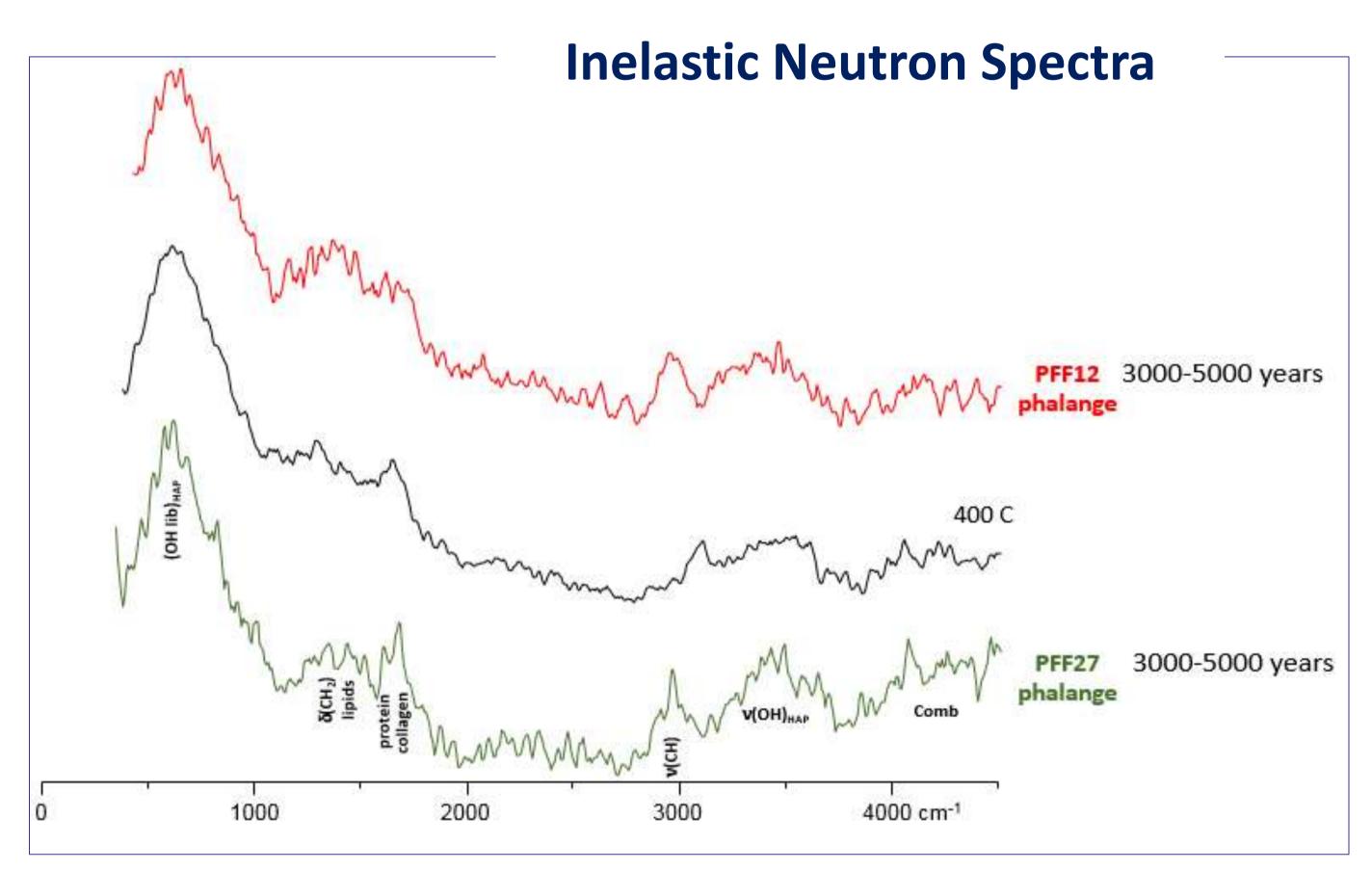
Burned bones are abundant in archaeological and paleontological sites as a result of ancient burial practices. The effect of burning on bones are mainly colour changes, shrinkage, crystallization, and surface alterations. The effect in the crystallinity index can be used to assess parameters of the burning process (temperature and time exposure).

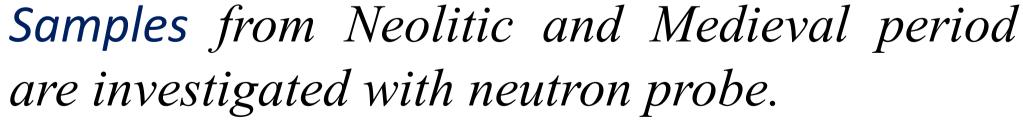


Neutron Analysis

This study aims at developing a reliable method for probing heat-induced diagenesis in human bones of archaeological interest, by INS spectroscopy. The results were coupled to Raman and FTIR data, will lead to an improved understanding of the changes undergone by bone upon burning events, allowing a reliable assessment of the burning conditions.







The archaeological samples Inelastic Neutron Scattering spectra to see the whole vibrational profile of the system.

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