

overlain by coversands. Partly believed belonging to MIS 9 or MIS 11 and usually expected to be beyond the dateable age range using luminescence dating. In our contribution age results obtained using the IR-RF signal of K-feldspars are presented and discussed along with its methodological challenges.

References :

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Electron Spin Resonance dating of fossil teeth at Cuesta de la Bajada site (Spain): some insight into intra- and intersample variability

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Over the last decades, technological improvements have progressively enabled to significantly decrease the amount of material required for dating analyses. In particular, the combined use of laser ablation (LA) with ICP-MS opened new possibilities for *in situ* high resolution U-series analyses of fossil teeth. With this technique it is now possible to directly visualise the spatial distribution of U and Th isotopes in dental tissues. Moreover, the combination of LA-ICP-MS with Electron Spin Resonance allows an increased sampling resolution, and opens the possibility to produce several ages for different areas within a given tooth. Several fossil equid teeth were collected at the Middle Paleolithic occupation of Cuesta de la Bajada (Teruel, Spain) for combined US-ESR dating purpose. Each tooth was divided into four subsamples, providing thus several age results per tooth. For each subsample, ESR, high-resolution laser ablation and solution ICP-MS U-series analyses were systematically carried out, and relative beta dose rate contributions from the different tissues and the sediment were adjusted using DosiVox software. The results of this work will give some insight into the intra- and intersample variability that may exist at a given site. The consistency of the final US-ESR age estimates obtained on teeth will be then evaluated by comparison with the (semi)-independent results derived from ESR and Luminescence dating of optically bleached quartz grains collected from the same excavation area.

Posters

Enjeux et méthodologie des datations par la méthode ESR/U-Th de sites de la fin du Paléolithique moyen : présentation des données préliminaires des Grottes de la Verpillière I et II.

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Les méthodes de la résonance de spin électronique et l'uranium-thorium combinées (ESR/U-Th) permettent de dater l'émail des dents fossiles entre environ 30 ka et 2 Ma. L'ESR/U-Th est donc couramment employée