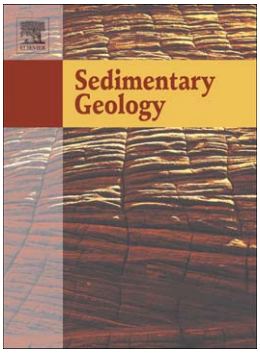

Genesis and microstratigraphy of calcite coralloids analysed by high resolution imaging and petrography

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Genesis and microstratigraphy of calcite coralloids analysed by high resolution imaging and petrography

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Abstract

The genesis of calcite coralloid speleothems from Lamalunga cave (Southern Italy) is here investigated from a purely petrographic perspective, which constitutes the basis for any subsequent chemical investigation. Lamalunga cave coralloids formed on bones and debris on the floor of the cave. They consist of elongated columnar crystals whose elongation progressively increases from the flanks to the tips of the coralloid, forming a succession of lens-shaped layers, which may be separated by micrite or impurity-rich layers. Organic molecules are preferentially concentrated toward the centre of convex lenses as highlighted by epifluorescence. Their occurrence on cave floor, lens-shaped morphology and concentration of impurities toward the apex of the convex lenses supports the