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Mineral nanotubes in the recent marine sediments from the southeastern Adriatic

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The mineral composition of recent marine clayey sediments from different sedimentological environments of the southeastern Adriatic was investigated. The main objective was to determine the structural and morphological properties of submicron-sized mineral particles that occur in the investigated sediments. The mineral particles were examined by X-ray diffraction (XRD), field-emission scanning electron microscopy (FESEM) and electron microprobe energy dispersive X-ray analyses (EDX). The results obtained for the first time identify the presence of unusual mineral forms, nanotubes, which have not been determined in modern sediments of the Adriatic (Fig. 1). The occurrence, origin and structural and morphological properties of these solids will be discussed.

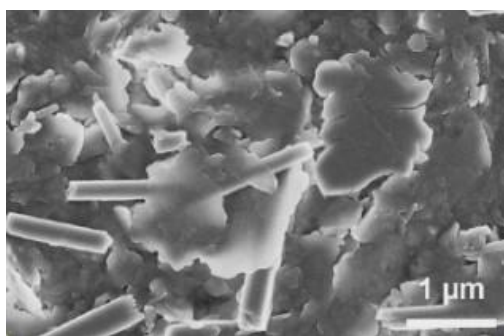


Fig. 1: FESEM photomicrograph of tubular mineral particles in size fraction containing particles with diameters <math>< 2 \mu\text{m}</math>.

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