



**Supplementary Figure 8.** Scanning electron micrographs of todorokite of the crust (sample OD-I-1): (A) a burrow of a detritus feeder, inlaid with Mg-calcite and todorokite; (B) spherical formations of todorokite; (C) todorokite on the surface of Mg-calcite crystals and an example of the EDS spectrum; (D) todorokite aggregate developed on scalenohedral crystals of Mg-calcite and its EDS spectrum.