EDX analysis

El Cid MV specimens expressed high values of iron and calcium along the tube, except on the inside layer (**Fig. S2**). Outside layer presented phosphorous and silica (spektrum 4). There were differences in the different internal layer, with variations in phosphorous, aluminum and silica. Magnesium was detected in one of the layers. Filamentous matrix (spektrum 6) was richer in phosphorous and presented lower silica. Layer with silica-balls had pick-signals in silica and aluminum (spektrum 2). The inside layer had no calcium, but maybe it was just not detected. Futhermore, Anastasya MV tubes presented iron and sulfur values homogenous along the tube. The outsider layer revealed also notable presence of silica and alluminium, and picks of calcium locally. Likewise, in Al Gacel MV tube sulfur and silica were homogenous. Outside layers presented locally high picks of sulfur and iron, while internal layer had some aluminum. One internal layer also presented a pick-signal of sulfur. The most inside layer (facing worm), keeps the homogeneity.