The alkoxide reaction process at a starting pH value of 3 is presented in the form of discrete snapshots (Figure 2). The reaction occurring at the water-alkoxide interface can be seen in these images.

A liquid alkoxide drop with an outer shell and scalloped pattern is shown in Figure 3(a). As a result of further reaction, the solid oxide formed is depicted by a darker region as seen under optical microscope (Figure 3(b)) and the water/alcohol byproduct vortex can be in the center of the alkoxide drop (Figure 3(c)).

**Figure 1.** SEM images of macroporous TiO$_2$ material synthesized from Ti(OctHex)$_4$ at pH 13.

The alkoxide reaction process at a starting pH value of 3 is presented in the form of discrete snapshots (Figure 2). The reaction occurring at the water-alkoxide interface can be seen in these images.

**Figure 2.** Optical microscopy images of a Ti(OEtHex)$_4$ drop in water at pH 3.

A liquid alkoxide drop with an outer shell and scalloped pattern is shown in Figure 3(a). As a result of further reaction, the solid oxide formed is depicted by a darker region as seen under optical microscope (Figure 3(b)) and the water/alcohol byproduct vortex can be in the center of the alkoxide drop (Figure 3(c)).

**Figure 3:** (a) Optical microscopy showing the accumulation of alcohol/water byproduct in the center of the alkoxide droplet as the reaction progresses (a,b) and corresponding SEM image (c).