

Customized multi-purpose diffractometer, inventive tool to analyze biological “calcification”.

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Inflammation of the appendix is the most common surgical emergency in children, yet the cause remains unknown. The presence of an appendicolith (calcification) is reported between 10%-50% of cases of pediatric appendicitis and has been associated with higher rates of complications from appendicitis including perforation and abscess formation.

While the composition of other “stone” structures in humans including gallstones and kidney stones are well described, appendicoliths have not been rigorously studied previously and their structure was largely unknown.

First results of their crystalline composition will be presented, measurements have been done using large photon counting detector on customized single crystal goniometer.