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## Micro-radiography of Biological Samples with Timepix

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Micro-radiography is an imaging technique using X-rays in the studies of internal structures of objects. This fast and easy imaging tool is based on differential X-ray attenuation by various tissues and structures within the biological sample. The non-absorbed radiation is detected with a suitable detector and creates a radiographic image. In order to detect the differential properties of X-rays passing through structures sample of various compositions, an adequate high-quality imaging detector is needed.

We describe the recently developed radiographic apparatus, equipped with Timepix semiconductor pixel detector. The detector is used as an imager that counts individual photons of ionizing radiation, emitted by an X-ray tube FeinFocus with tungsten, copper or molybdenum anode. Thanks to the wide dynamic range, time over threshold mode - counter is used as Wilkinson type ADC allowing direct energy measurement in each pixel of Timepix detector and its high spatial resolution better than  $1\mu\text{m}$ , the setup is particularly suitable for radiographic imaging of small biological samples. We are able to visualize the internal biological processes and also to resolve the details of insects (morphology) using different anodes. Our images and spectra of anodes are shown in the poster section.

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