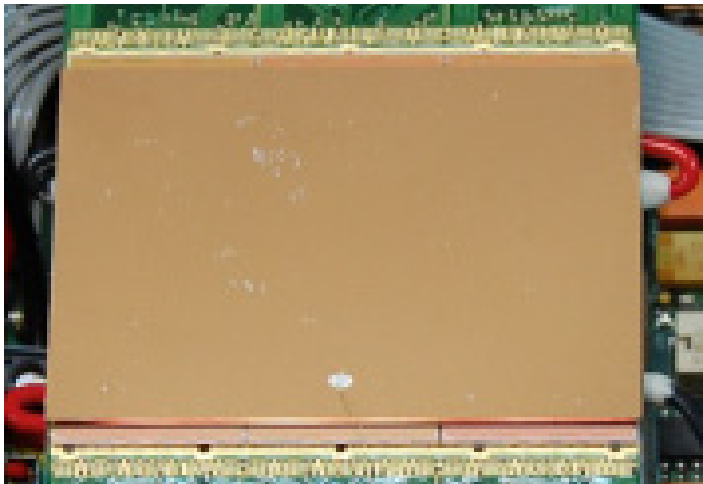
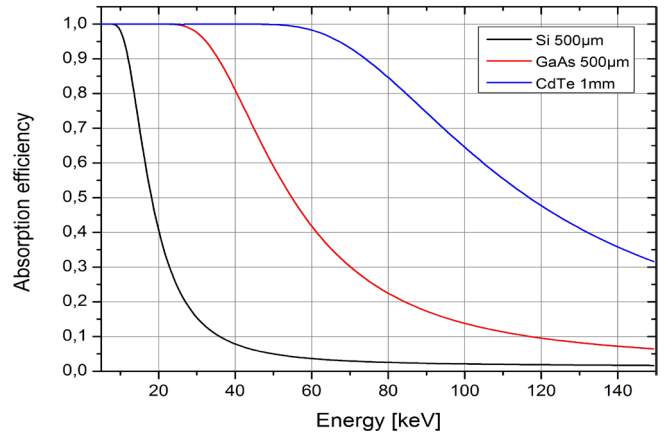


GaAs and CdTe detectors

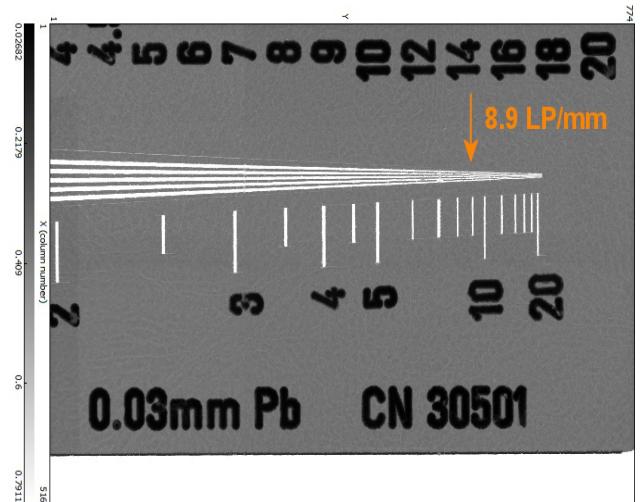
Applications with higher X-ray energies above 20 keV require high-Z sensor materials with a high absorption coefficient. XIE offers for these applications GaAs sensors with 500 μm thickness as well as CdTe with 1 mm and 2 mm thickness. Depending on the X-ray energies you can select the best fitting sensor type.

XIE has developed the technology for hybridisation to produce GaAs and CdTe sensors with the Medipix2 electronic with 65.000 pixels up to 400.000.

Absorption Efficiency for Si, GaAs and CdTe Sensors



CdTe Hexa sensor with 28x42 mm² area.



Spatial resolution recorded with CdTe (55 μm).

Different module size are available with the Medipix2 or Timepix electronics:

- Single modules with 2 cm² active area (14x14 mm²) with 55 μm and 110 μm pixels
- Hexa modules with 12 cm² active area (28x42 mm²) with 55 μm and 165 μm pixels



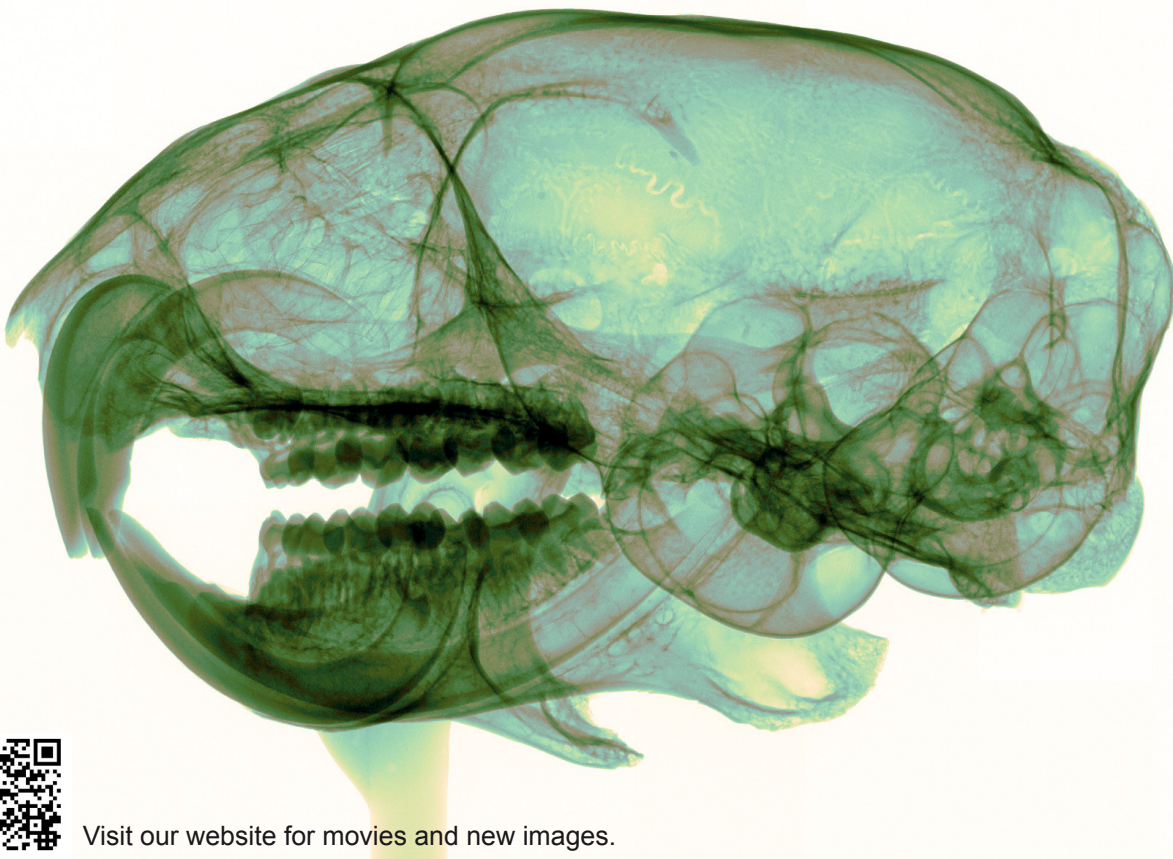
Images recorded with CdTe Hexa module with 165 μm pixel size.

GaAs and CdTe detectors

Data High-Z Sensors	GaAs	CdTe
Readout Electronics	Medipix2 and Timepix	
Pixel dimensions	55 μm	55 μm , 110 μm
Module sizes	14x14 mm ² and 28x42 mm ²	
Thickness	500 μm	1 mm, 2 mm
Bias	300 V	450 V, 600 V

Hexa Modul 2x3 Kit including:

Timepix / Medipix2 Assembly,
 USB2 Interface, Pixelman Software
 temperature stabilization (Peltier cooling),
 external power supply.



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