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## Characterisation of HEPAPS4 - a family of CMOS active pixel sensors for charged particle detection

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Monolithic active pixel sensor technology is a relatively inexpensive and reliable alternative to that of CCDs. Potential scientific applications of these devices include charged particle detection, indirect X-ray imaging and indirect neutron detection. This paper will report on the characterisation of three different sensor variants from the HEPAPS4 family. The sensors have identical 3MOS design but differ by the implementation of the photosensitive element. They have an array of 1024 x 384 pixels of 15 x 15  $\mu\text{m}^2$  with 20  $\mu\text{m}$  epi-layer. Photonic methods are used to measure conversion gain, linearity, signal to noise ratio, dynamic range and pixel-to-pixel uniformity. In the noise analysis different contributing components such as reset noise, dark current and read noise are identified.

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