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## newsbreaks

### 320 × 256 detector array is solar-blind

Although the first images from an aluminum gallium nitride (AlGaN) UV focal-plane-array (FPA) camera were published in 2002, quality was lacking and they did not provide a full-frame 320 × 256 image. Now, researchers at Northwestern University (Evanston, IL) have produced, entirely in their laboratory, the first AlGaN-based 320 × 256 UV FPA of high quality and have published several good images at a 280-nm wavelength.

The processed FPA consists of an array of 320 × 256 discrete 25 × 25- $\mu\text{m}$  pixels on a 30- $\mu\text{m}$  period. The current-voltage curve of a representative pixel from the middle of the array showed a sharp turn-on voltage of 4.7 V, with a series resistance of 4.3 k $\Omega$ . The individual AlGaN photodiodes are bonded to a read-out integrated circuit via flip-chip bonding. A camera was constructed that consisted of the FPA in a leadless chip carrier, an aperture to block stray light, a 280-nm bandpass filter, and a 32-mm lens to collect the light and form the image on the FPA; recorded camera images showed good uniformity for the pixel response. Contact Manijeh Razeghi at [razeghi@ece.northwestern.edu](mailto:razeghi@ece.northwestern.edu).