**Conference Sessions At A Glance**

Welcome and Opening Remarks  
1: Keynote Session I  
2: Quantum Cascade Lasers for Gas Sensing  
3: Sensing Application of Quantum Cascade Lasers  
4: Mid-Infrared Interband Lasers and Applications  
OPTO Plenary Session  
5: Keynote Session II  
6: Terahertz Technology: Lasers, Detectors, and Imaging  
7: Advances in Photonics  
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9: Infrared Detection I  
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12: Keynote Session V  
13: Quantum Detectors  
14: Nanophotonics and Plasmonics  
15: Nanophotonics and Metasurfaces  
—CANCELED—Late-Breaking Results and Awards for Breakthroughs in Human-Centered Research  
16: Keynote Session VI  
17: Nonlinear Photonics  
18: 2D Materials for Photonics  
19: Keynote Session VII  
20: Nano- and Opto-Mechanics  
21: IR Laser/Detector Development  
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22: Keynote Session VIII  
23: Frontiers in Quantum Technologies  
24: Quantum Dots and Nanostructures I  
25: Keynote Session IX  
26: Quantum Dots and Nanostructures II  
27: Advanced Optical Spectroscopy Techniques

**Important Dates**

Abstract Due:  
15 July 2016  
Author Notification:  
28 September 2016  
Manuscript Due Date:  
21 November 2016

**Conference Committee**
Quantum cascade detector at 4.3μm wavelength in pixel array configuration
Paper 10111-83
Time: 4:00 PM - 4:15 PM
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We present a high performance InGaAs/InAlAs quantum cascade detector design suitable for pixel devices. The pixels are fully compatible with standard processing technology and material growth to provide scalability to large pixel counts. An enhanced quantum cascade detector simulator is used for design optimization of the resistance and extraction efficiency while maintaining a high responsivity. The device is thermo-compression bonded to a custom read out integrated circuit with substrate bottom side illuminated pixels. A room temperature responsivity of 16mA/W and a detectivity of 5·10^7 cm^2Hz/W was achieved in good agreement with our simulation results. Device packaging and thermo-electric cooling in an N2 purged 16 pin TO-8 housing has been investigated additionally.