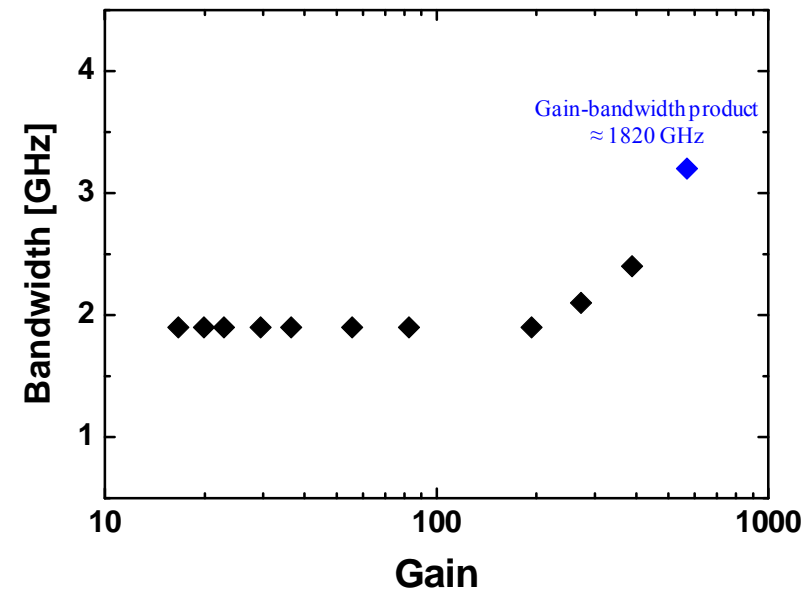
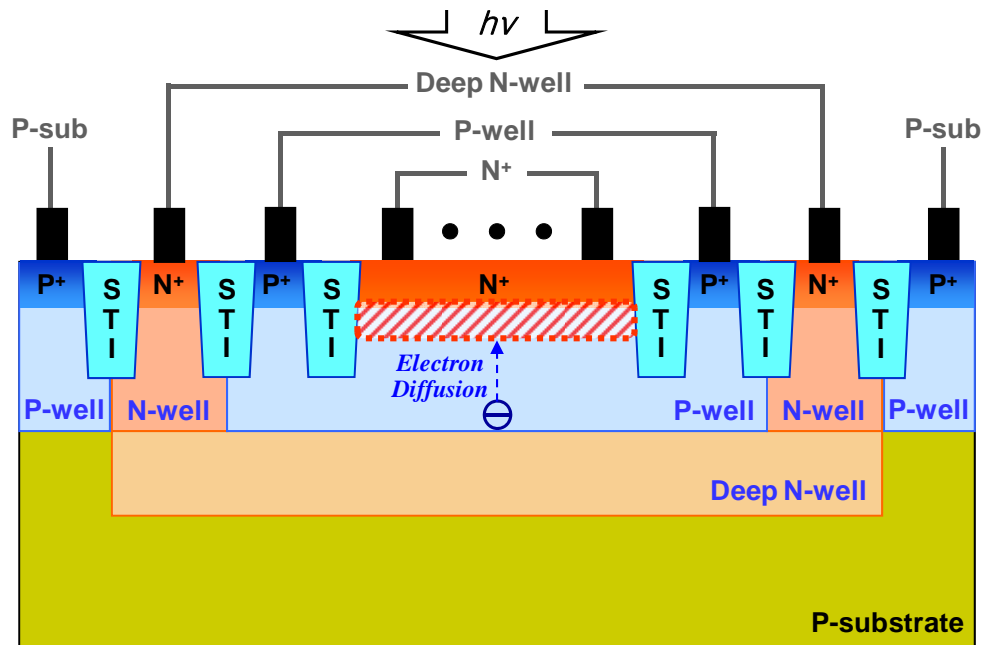


CMOS-Compatible Avalanche Photodetector

(Optics Express, vol. 18, no. 23, Nov. 2010)

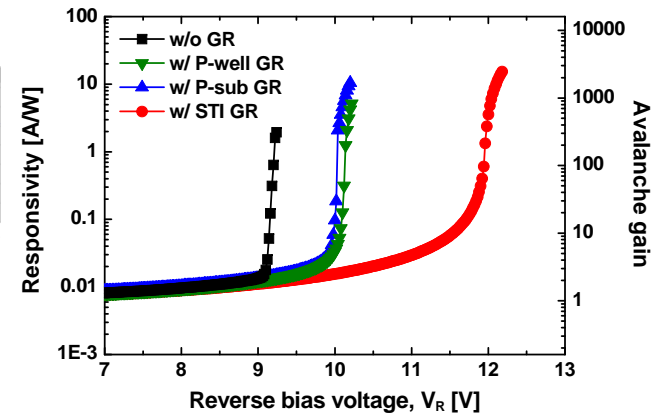
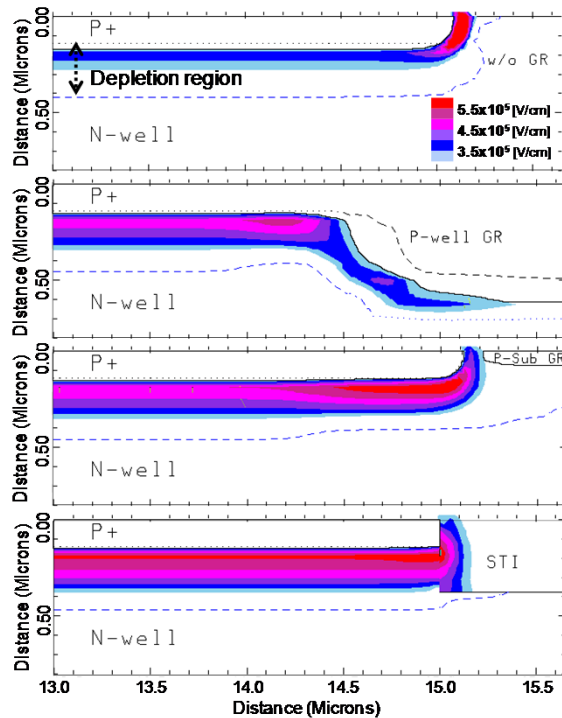
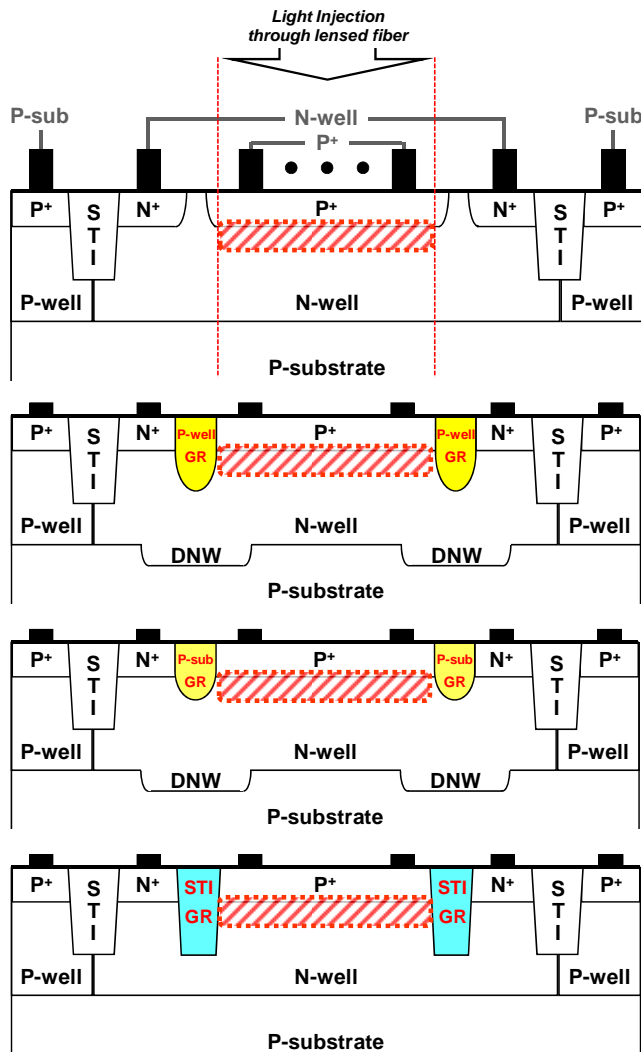


Gain-bandwidth product over 1 THz is achieved with a CMOS-APD having avalanche gain of 569 and 3-dB photodetection bandwidth of 3.2 GHz.

- Fully-compatible with standard 0.13- μm CMOS technology
- Bandwidth enhancement with N+/P-well CMOS-APD

CMOS-Compatible Avalanche Photodiode

(IEEE EDL, vol. 33, no. 1, Jan. 2012)



- Effects of guard-ring (GR) structures on the performance of CMOS-APDs
- GR realized with shallow trench isolation (STI) provides the best CMOS-APD performance