Quantum dot based ultrafast photoconductive antennae for efficient THz radiation

Figure 1

DBR reflectivity curve. Reflected intensity normalised to incoming.

Sheet 1 in Data.xlsx

Figure 4. Normalised change of transmission vs pump delay. Pump delay is changed and sample transmission is measure with the golay cell. Then, difference between unpumped sample transmission and pumped sample transmission is normalised to unpumped sample transmission.

Sheet 2 in Data.xlsx for fig. (a)

Sheet 3 in Data.xlsx for fig. (b)

Lifetime derived from exponential approximations for different pump intensities

Sheet 4 in Data.xlsx for fig. (c)

Figure 5. Generated THz power. (a) on IR pump intensity, (b) on bias applied to antenna electrodes

Sheet 6 in Data.xlsx for fig. (b)

Sheet 5 in Data.xlsx for fig. (a)

Figure 6. THz signal from QD antenna. (a) time-domain, inset: pulse duration (b) frequency domain, inset: normalized THz spectra

Sheet 7 in Data.xlsx for fig. (a)

Sheet 8 in Data.xlsx for fig. (b)

Figure 6. CW THz Generation.

Sheet 9 in Data.xlsx