

Prof. Gabby Sarusi: Main topics of research

- Quantum structures in semiconductors: quantum phenomena in nano -layers of type I and type II super-lattice.
- Detection devices based on band gap manipulation and band gap engineering quantum wells.
- Multispectral detection using a combination of intersubband transitions and intraband transitions.
- Emitting devices based on band gap engineering.
- Absorption phenomena in Quantum dots and semiconductor colloids.
- Plasmonic enhance absorption in semiconductor colloids
- Carriers transport between quantum dots and semiconductor colloids.
- Electrical and optical characterization of quantum well and quantum dot devices.
- Efficient light coupling to quantum well and quantum dots based devices.