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Research interest

We are currently working on silicon nanostructure (porous silicon). Porous Silicon (pSi) is a form of the silicon(Si) which has an introduced nanoporous holes on its surface, rendering a large surface to volume ratio in the order of $500\text{m}^2/\text{cm}^3$. It is an interesting material having lots of properties like very huge surface area, its biocompatibility, photoluminescence property (due to quantum confinement) and its compatibility to the current electronics industry techniques. The research focus of our group is produce porous silicon with tunable properties and thir application as different types of sensors.

Keywords: porous silicon, photoluminescence, quantum confinement, sensor, biocompatibility