Quantum Confinement in an amorphous matrix


Silicon quantum dots embedded in an amorphous silicon matrix blue-shift as size is decreased

- Amorphous layer acts as a confinement barrier
- Theory supports conclusions, tells us hydrogenation of a-Si plays a key role and that the...
- Largest achievable confined band gap $\sim 1.5$ eV

Fields, et al., Advanced Functional Materials (submitted)