

Abstract Submitted
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Quantum Dots: The New Little Nanosemiconductors CHANCE HARENZA — The recent arrival of nanomaterials has brought a nifty device called the Quantum Dot. They have intriguing and useful properties. They release light when electricity, heat or light excites their electrons. Their tunable bandgaps allow for the wavelength range they release to be controlled. Free Dots can be attached to a variety of molecules via metal coordinating functional groups. Some of These groups include thiol, phosphine oxide, phosphonic acid, amine, nitrile, phosphine, carboxylic acid or others ligands. This allows the Dots to be dispersed or dissolved in almost any solvent as well as incorporated into a large number of inorganic and organic films. quantum dots can also be tuned to emit in sharp Gaussian peaks in visible or infrared light. Their uses vary from counter counterfeiting to tracking terrorist movement across a large empty landscape.

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