

Title (en)
QUANTUM DOTS, NANOCOMPOSITE MATERIALS WITH QUANTUM DOTS, OPTICAL DEVICES WITH QUANTUM DOTS, AND RELATED FABRICATION METHODS

Title (de)
QUANTEN-DOTS, NANOZUSAMMENSETZUNGSMATERIALIEN MIT QUANTEN-DOTS, OPTISCHE EINRICHTUNGEN MIT QUANTEN-DOTS UND DIESBEZÜGLICHE HERSTELLUNGSVERFAHREN

Title (fr)
POINTS QUANTIQUES, MATERIAUX NANOCOMPOSITES A POINTS QUANTIQUES, DISPOSITIFS OPTIQUES A POINTS QUANTIQUES ET PROCEDES DE FABRICATION ASSOCIES

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Abstract (en)
[origin: WO2005017951A2] The invention relates to quantum dots, nanocomposite materials with quantum dots, optical devices with quantum dots, and related fabrication methods. In one embodiment, a quantum dot comprises a core including a semiconductor material Y selected from the group consisting of Si and Ge. The quantum dot also comprises a shell surrounding the core. The quantum dot is substantially defect free such that the quantum dot exhibits photoluminescence with a quantum efficiency that is greater than 10 percent.

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Citation (search report)

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- See references of WO 2005017951A2

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