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Kim et al.

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(54) **DEVICES COMPRISING COATED SEMICONDUCTOR NANOCRYSTAL HETEROSTRUCTURES**

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(75) Inventors: **Sungjee Kim**, Pasadena, CA (US); **Moungi G. Bawendi**, Cambridge, MA (US)

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(73) Assignee: **MASSACHUSETTS INSTITUTE OF TECHNOLOGY**, Cambridge, MA (US)

(58) **Field of Classification Search**
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USPC 428/403, 407; 977/773, 825, 832
See application file for complete search history.

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

(63) Continuation of application No. 12/888,161, filed on Sep. 22, 2010, now Pat. No. 8,277,942, which is a continuation of application No. 12/213,001, filed on Jun. 12, 2008, now Pat. No. 7,825,405, which is a continuation of application No. 10/638,546, filed on Aug. 12, 2003, now Pat. No. 7,390,568.

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Primary Examiner — Holly Le

(74) Attorney, Agent, or Firm — Steptoe & Johnson LLP

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(57) **ABSTRACT**

A semiconductor nanocrystal heterostructure has a core of a first semiconductor material surrounded by an overcoating of a second semiconductor material. Upon excitation, one carrier can be substantially confined to the core and the other carrier can be substantially confined to the overcoating.

(52) **U.S. Cl.**
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7 Claims, 5 Drawing Sheets

