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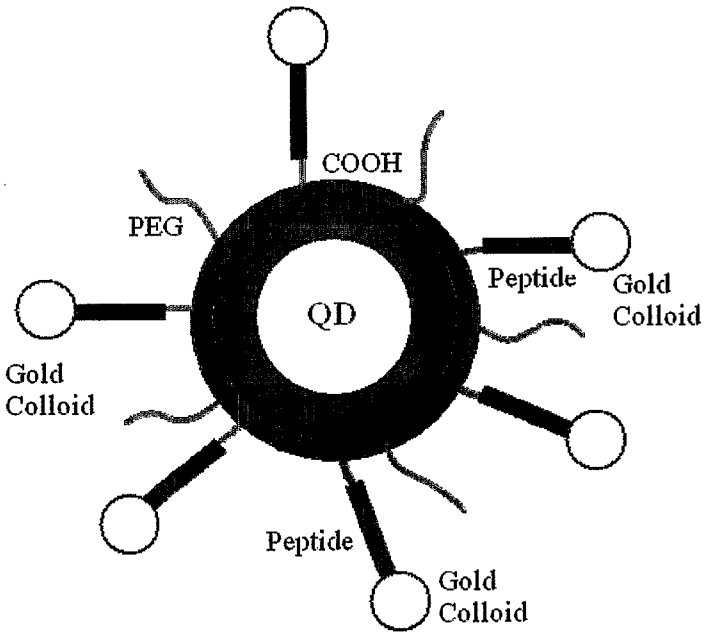
(54) Title: QUANTUM DOT PROBES




(57) Abstract: A composition comprising a quantum dot, at least one metal nanoparticle, and at least one tether that is attached to the quantum dot and to the at least one metal nanoparticle. A method comprising providing at least one probe, introducing the at least one probe into a subject or a sample, and detecting the resulting luminescence of the quantum dot. A system comprising at least one probe and a detector capable of detecting luminescence from the quantum dot, wherein the detector is positioned in relation to the at least one probe such that luminescence can be detected.

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# INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G02B 26/00 (2006.01)
USPC - 359/296
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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USPC - 359/296

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MicroPatent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | US 6,721,083 B2 (JACOBSON et al) 13 April 2004 (13.04.2004) entire document | 1-5,8-10 |
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| Y | | 6-7,11-22 |
| Y | WO 2005/040755 A2 (HELLER et al) 06 May 2005 (06.05.2005) entire document | 6-7,13,16,19 |
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| A | US 2002/0127224 A1 (CHEN) 12 September 2002 (12.09.2002) entire document | 1-22 |
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