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(54) Title: INVENTORY CONTROL		
(57) Abstract		
A novel encoding system, compositions for use therein and methods for determining the source, location and/or identity of a particular item or component of interest is provided. In particular, the present invention utilizes a collection of one or more sizes of populations of semiconductor nanocrystals having characteristic spectral emissions, to "track" the source or location of an item of interest or to identify a particular item of interest. The semiconductor nanocrystals used in the inventive compositions can be selected to emit a desired wavelength to produce a characteristic spectral emission in narrow spectral widths, and with a symmetric, nearly Gaussian line shape, by changing the composition and size of the semiconductor nanocrystal. Additionally, the intensity of the emission at a particular characteristic wavelength can also be varied, thus enabling the use of binary or higher order encoding schemes.		<p style="text-align: center;">(A)</p> <p style="text-align: center;">(B)</p>

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 99/21373

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07H21/00 H03M7/48 G06K7/14 G01N21/64 G06K19/06
G01N33/58 H01L33/00

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)
IPC 7 G01N G06K H04N H01L

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 practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 625 456 A (LAWANDY NABIL M) 29 April 1997 (1997-04-29) abstract; claims; figure 16 column 9, line 15 - line 59 column 10, line 58 -column 11, line 60 column 15, line 26 - line 45 column 16, line 27 - line 46 column 20, line 65 -column 21, line 43	1-12, 23, 24, 27
Y	---	25, 26
A	---	28-30
X	WO 98 36376 A (SPECTRA SCIENCE CORP) 20 August 1998 (1998-08-20) page 6, line 4 - line 21 page 14, line 12 -page 15, line 9 ---	1-11
	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

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International Application No
PCT/US 99/21373

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KORTAN A R ET AL: "NUCLEATION AND GROWTH OF CdSe ON ZnS QUANTUM CRYSTALLITE SEEDS, AND VICE VERSA, IN INVERSE MICELLE MEDIA" JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, US, AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC, vol. 112, 1 January 1990 (1990-01-01), pages 1327-1332, XP000196554 ISSN: 0002-7863 the whole document ---	1,2, 5-10, 13-22
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X	US 5 770 299 A (DANNENHAUER FRITZ ET AL) 23 June 1998 (1998-06-23) column 3, line 63 -column 4, line 24 ---	24,27
X	MIRMAL ET AL: "Fluorescence intermittency in single cadmium selenide nanocrystals" NATURE, vol. 383, 31 October 1996 (1996-10-31), pages 802-804, XP000877130 cited in the application the whole document ---	1,2, 5-10, 13-22
X	US 5 751 018 A (ALIVISATOS A PAUL ET AL) 12 May 1998 (1998-05-12) the whole document ---	1,2,5-10
X	WO 98 04740 A (UNIV NORTHWESTERN ;MIRKIN CHAD A (US); MUCIC ROBERT C (US); ELGHAN) 5 February 1998 (1998-02-05) abstract page 1, line 20 -page 14, line 6 page 51, line 22 -page 52, line 5 ---	28-30
P,X	WO 98 46372 A (UNIV BROWN RES FOUND) 22 October 1998 (1998-10-22) abstract; claims page 1, line 18 -page 4, line 27 page 12, line 1 - line 16 ---	1-12,23, 24,27
P,X	CHAN WCW ET AL: "Quantum Dot bioconjugates for ultrasensitive nonisotopic detection" SCIENCE, US, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,, vol. 281, no. 281, 25 September 1998 (1998-09-25), pages 2016-2018-2018, XP002125871 ISSN: 0036-8075 the whole document ---	1-30
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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

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