US009410079B2

(12) **United States Patent**
Kuzumoto et al.

(10) **Patent No.: US 9,410,079 B2**
(45) **Date of Patent: Aug. 9, 2016**

(54) **PHOSPHOR NANOPARTICLE AND OPTICAL DEVICE INCLUDING PHOSPHOR NANOPARTICLE**

(71) Applicant: **Sharp Kabushiki Kaisha**, Osaka-shi, Osaka (JP)

(72) Inventors: **Yasutaka Kuzumoto**, Osaka (JP); **Tatsuya Ryohwa**, Osaka (JP); **Makoto Izumi**, Osaka (JP)

(73) Assignee: **Sharp Kabushiki Kaisha**, Osaka (JP)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 121 days.

(21) Appl. No.: **14/526,585**

(22) Filed: **Oct. 29, 2014**

(65) **Prior Publication Data**

US 2015/0129814 A1 May 14, 2015

(30) **Foreign Application Priority Data**

Nov. 8, 2013 (JP) 2013-232151

(51) **Int. Cl.**

C01B 21/06	(2006.01)
C09K 11/02	(2006.01)
C09K 11/56	(2006.01)
C09K 11/61	(2006.01)
C09K 11/62	(2006.01)
C09K 11/70	(2006.01)

(52) **U.S. Cl.**

CPC ***C09K 11/025*** (2013.01); ***C09K 11/565*** (2013.01); ***C09K 11/615*** (2013.01); ***C09K 11/62*** (2013.01); ***C09K 11/70*** (2013.01)

(58) **Field of Classification Search**

CPC .. C09K 11/02; C09K 11/025; H01L 51/0094; H01L 51/0062

See application file for complete search history.

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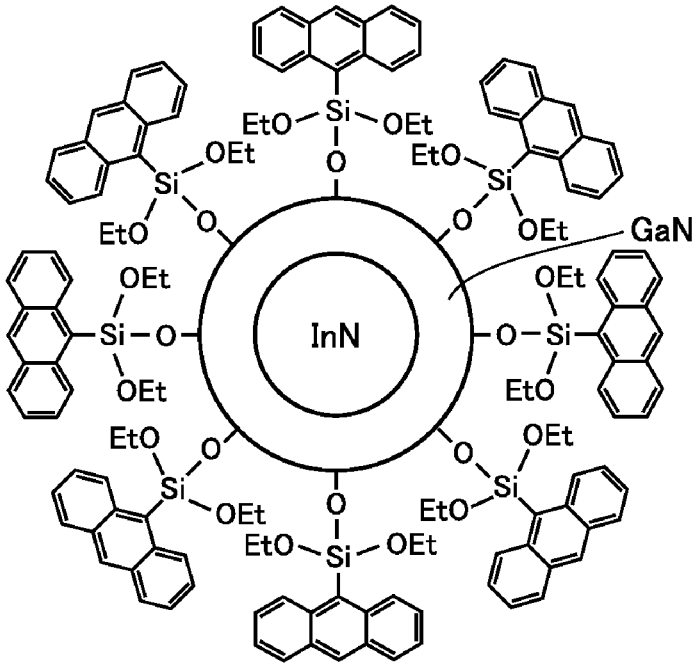
Primary Examiner — Carol M Koslow

(74) *Attorney, Agent, or Firm* — Keating & Bennett, LLP

(57) **ABSTRACT**

A phosphor nanoparticle includes a nanoparticle core composed of a compound semiconductor, a shell layer that covers the nanoparticle core, and a modifying organic compound bound to the outer surface of the shell layer. The modifying organic compound exhibits absorption in at least part of a wavelength range of 300 nm or more and 400 nm or less.

8 Claims, 4 Drawing Sheets