

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number
WO 03/084292 A1

(51) International Patent Classification⁷: **H05B 33/22**,
H01L 35/24, 29/00

12142 (US). **BAWENDI, Mounqi, G.** [US/US]; 263
Commonwealth Avenue #5, Boston, MA 02116 (US).

(21) International Application Number: PCT/US03/09619

(74) Agent: **FOX, Harold, H.**; Fish & Richardson P.C., 11th
Floor, 1425 K Street, N.W., Washington, DC 20005-3500
(US).

(22) International Filing Date: 28 March 2003 (28.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/368,130 29 March 2002 (29.03.2002) US

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.

(63) Related by continuation (CON) or continuation-in-part
(CIP) to earlier application:
US 60/368,130 (CON)
Filed on 29 March 2002 (29.03.2002)

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **MASS-
ACHUSETTS INSTITUTE OF TECHNOLOGY**
[US/US]; 77 Massachusetts Avenue, Cambridge, MA
02142-1324 (US).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **BULOVIC,**
Vladimir [YU/US]; 16 Lillian Road, Lexington, MA
02402 (US). **COE, Seth, A.** [US/US]; 14 Irma Avenue,
Watertown, MA 02472 (US). **WOO, Wing-Keung**
[CN/US]; 60 Wadsworth Street, 5H, Cambridge, MA

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: LIGHT EMITTING DEVICE INCLUDING SEMICONDUCTOR NANOCRYSTALS

(57) Abstract: A light emitting device includes a semiconductor nanocrystal in a layer. The layer can be a non-polymeric layer.



WO 03/084292 A1