

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 June 2018 (28.06.2018)



(10) International Publication Number
WO 2018/114710 A1

- (51) **International Patent Classification:**
C07D 491/04 (2006.01) *G01N 33/52* (2006.01)
- (21) **International Application Number:**
PCT/EP2017/083128
- (22) **International Filing Date:**
15 December 2017 (15.12.2017)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
62/438,006 22 December 2016 (22.12.2016) US
- (71) **Applicant: ILLUMINA CAMBRIDGE LIMITED**
[GB/GB]; Chesterford Research Park, Little Chesterford,
Nr. Saffron Walden, Essex CB10 1XL (GB).
- (72) **Inventor: ROMANOV, Nikolai;** Chesterford Research
Park, Little Chesterford, Nr. Saffron Walden, Essex CB10
1XL (GB).
- (74) **Agent: MURGITROYD & COMPANY;** 165-169 Scot-
land Street, Glasgow, Strathclyde G5 8PL (GB).
- (81) **Designated States** (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,
KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

(54) **Title:** COUMARIN COMPOUNDS AND THEIR USES AS FLUORESCENT LABELS

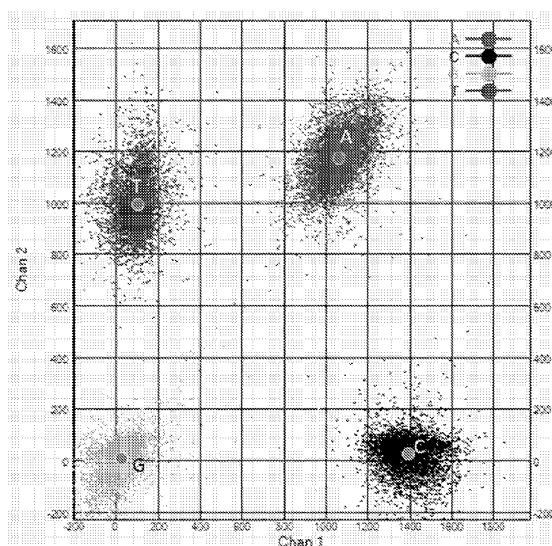


FIG.1

(57) **Abstract:** The present application relates to new coumarin compounds and their uses as fluorescent labels. The compounds may be used as fluorescent labels for nucleotides in nucleic acid sequencing applications.

[Continued on next page]

WO 2018/114710 A1

Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i))*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*