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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 March 2013 (07.03.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/033253 A1

(51) International Patent Classification:
G01N 15/14 (2006.01)

(21) International Application Number:
PCT/US2012/052914

(22) International Filing Date:
29 August 2012 (29.08.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/528,589	29 August 2011 (29.08.2011)	US
61/542,058	30 September 2011 (30.09.2011)	US
61/691,211	20 August 2012 (20.08.2012)	US

(71) Applicant *(for all designated States except US)*: **AMGEN INC.** [US/US]; One Amgen Center Drive, Thousand Oaks, California 91320-1799 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **MILNE, Graham F.** [GB/US]; 5500 Owensmouth Avenue, Apt. 214, Woodland Hills, California 91367 (US). **FREUND, Erwin** [DE/US]; 12059 Pradera Road, Camarillo, California 93012 (US). **SMITH, Ryan L.** [US/US]; 1616 Westgate Avenue, Apt. 203, Los Angeles, California 90025 (US).

(74) Agents: **KONSKI, Antoinette F.** et al.; Foley & Lardner LLP, 975 Page Mill Road, Palo Alto, California 94304 (US).

(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,

[Continued on next page]

(54) Title: METHODS AND APPARATI FOR NONDESTRUCTIVE DETECTION OF UNDISSOLVED PARTICLES IN A FLUID

(57) Abstract: The apparati, methods, and computer program products disclosed herein can be used to nondestructively detect undissolved particles, such as glass flakes and/or protein aggregates, in a fluid in a vessel, such as, but not limited to, a fluid that contains a drug.

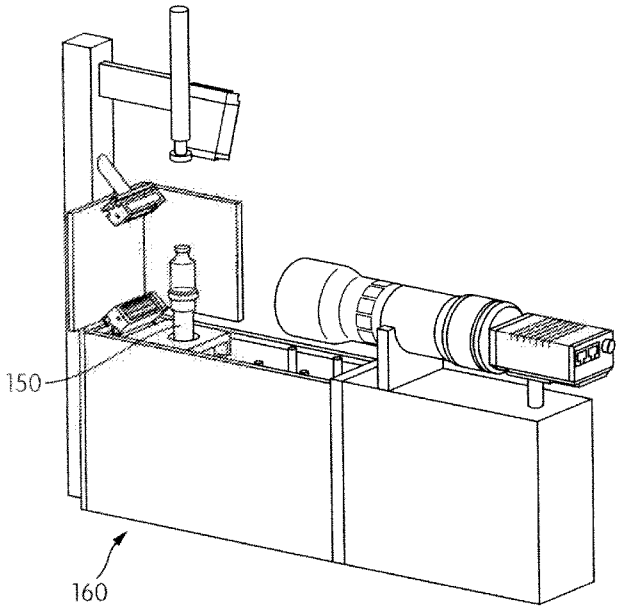


FIG. 1B

WO 2013/033253 A1

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, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *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))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*