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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 April 2009 (09.04.2009)

PCT

(10) International Publication Number
WO 2009/045343 A1

(51) International Patent Classification:
B01L 3/02 (2006.01)

(21) International Application Number:
PCT/US2008/011205

(22) International Filing Date:
26 September 2008 (26.09.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/995,752 29 September 2007 (29.09.2007) US

(71) Applicant *(for all designated States except US)*: **EL SPECTRA, LLC** [US/US]; 19622 NE 125th Ct, Woodinville, WA 98077 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **AYLIFFE, Harold, E.** [US/US]; 19622 NE 125th Ct, Woodinville, WA 98077 (US). **KING, Curtis, S.**; 425 Lake St. South Apt. 2, Kirkland, WA 98033 (US).

(74) Agent: **TRASK, Brian C**; 3601 East Hermes Drive, Salt Lake City, UT 84124 (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, BR, BW, BY, BZ, CA, CH, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, 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 applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
— *of inventorship (Rule 4.17(iv))*

Published:
— *with international search report*
— *with amended claims*

(54) Title: INSTRUMENTED PIPETTE TIP

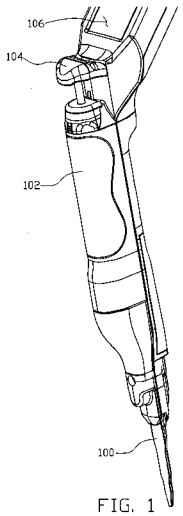


FIG. 1

(57) Abstract: An improved pipette tip (100) including an elongate body stretching between a proximal end (116) and a distal end (114). The body (112) is typically made from a plurality of layers (e.g. 130, 132, 134, 136, 138) configured and arranged to provide a fluid path extending from the distal end toward the proximal end. The improved pipette tip (100) includes a sensor component disposed to electrically interrogate fluid flowing along the fluid path. An operable sensor component includes an electrode (e.g. 154, 192) that is disposed in the fluid path to contact fluid therein. A pipette tip (100) may be embodied to: count particles, verify sample integrity (e.g. freedom from bubbles), monitor sample flow rate, and confirm an inspired volume, among other uses.

WO 2009/045343 A1