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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
21 August 2008 (21.08.2008)

PCT

(10) International Publication Number
WO 2008/101254 A3

(51) International Patent Classification:
H01J 37/34 (2006.01) *H01J 37/32* (2006.01)

(21) International Application Number:
PCT/US2008/054320

(22) International Filing Date:
19 February 2008 (19.02.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/890,243 16 February 2007 (16.02.2007) US

(71) Applicant *(for all designated States except US)*: **INTEVAC, INC.** [US/US]; 3560 Bassett Street, Santa Clara, CA 95054 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **BLUCK, Terry** [US/US]; 3128 Butte Street, Santa Clara, CA 95051 (US). **WARD, Patrick** [US/US]; 742 N. 17th Street, San Jose, CA 95112 (US). **BARNES, Michael** [US/US]; 12215 Santa Teresa Drive, San Ramon, CA 94583 (US).

(74) Agent: **BACH, Joseph**; Nixon Peabody LLP, 401 9th Street, N.W., Suite 900, Washington, DC 20004 (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, 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).

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*

(88) Date of publication of the international search report:
9 October 2008

WO 2008/101254 A3

(54) Title: POWER SOURCE ARRANGEMENT FOR MULTIPLE-TARGET SPUTTERING SYSTEM

(57) Abstract: An arrangement for concurrently powering a plurality of sputtering sources. A power supply is coupled to a charge accumulator. The charge accumulator is coupled to several sputtering sources via switching devices. The duty cycle of each switching device is used to individually control the power delivered to each sputtering source. In another arrangement, a power source is coupled to an impedance match circuit. The impedance match circuit is coupled to several sputtering sources via several balance elements. Each balance element is operated to individually control the power delivered to the sputtering source.