



(43) International Publication Date
21 February 2013 (21.02.2013)

- (51) International Patent Classification:
B08B 7/02 (2006.01)
- (21) International Application Number:
PCT/IB2012/054168
- (22) International Filing Date:
15 August 2012 (15.08.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/524,981 18 August 2011 (18.08.2011) US
- (71) Applicant (for all designated States except US): **MEMC ELECTRONIC MATERIALS S.p.A.** [IT/IT]; Viale Gherzi, 31, I-28100 Novara (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **ZAVATTARI, Carlo** [IT/IT]; c/o MEMC Electronic Materials S.p.A., Viale Gherzi, 31, I-28100 Novara (IT). **SEVERICO, Ferdinando** [IT/IT]; c/o MEMC Electronic Materials S.p.A., Viale Gherzi, 31, I-28100 Novara (IT). **VANDAMME, Roland** [US/US]; c/o MEMC Electronic Materials, Inc., 501 Pearl Drive, St. Peters, Missouri 63376 (US). **BONDA, Fabrizio** [IT/IT]; c/o MEMC Electronic Materials S.p.A., Viale Gherzi, 31, I-28100 Novara (IT).
- (74) Agents: **MUNSELL, Michael G.** et al.; Armstrong Teasdale LLP, 7700 Forsyth Blvd., Suite 1800, St. Louis, Missouri 63105 (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, 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).

Published:

— without international search report and to be republished upon receipt of that report (Rule 48.2(g))

(54) Title: METHODS AND SYSTEMS FOR REMOVING CONTAMINATION FROM A WIRE OF A SAW

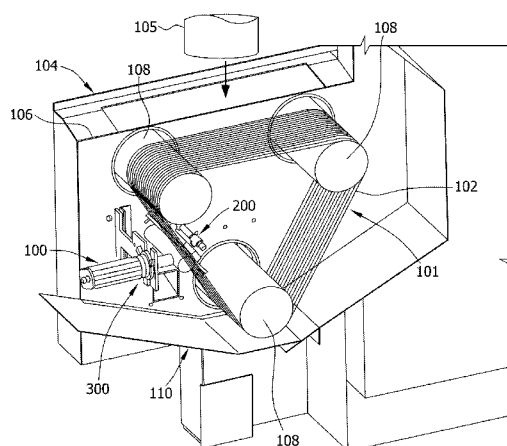


FIG. 1

(57) Abstract: A system for ultrasonically cleaning one or more wires of a wire saw for slicing semiconductor or solar material into wafers. The system includes an ultrasonic transducer connected to a sonotrode. The system also includes a sonotrode plate adjacent to one or more of the wires. The sonotrode plate has an opening that exposes the sonotrode to one or more of the wires. The system further includes a tank for delivering a flow of liquid to contact the sonotrode and one or more of the wires. The tank is positioned on the same side of the wires as the sonotrode plate. The ultrasonic transducer is configured to vibrate and form cavitations in the liquid for the removal of contaminants from a surface of one or more of the wires.

