

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International patent classification⁷: H01L 31/068, 31/0288, 21/033, 21/312, 21/316	A1	(11) International publication number: WO 00/54341 (43) International publication date: 14 September 2000 (14.09.00)
(21) International application number: PCT/EP00/01694 (22) International filing date: 29 February 2000 (29.02.00) (30) Data relating to the priority: 199 10 816.1 11 March 1999 (11.03.99) DE (71) Applicant (for all designated States except US): MERCK PATENT GMBH [DE/DE]; Frankfurter Strasse 250, D-64293 Darmstadt (DE). (72) Inventors; and (75) Inventors/Applicants (US only): KÜBELBECK, Armin [DE/DE]; Augartenstrasse 45, D-64625 Bensheim (DE). ZIELINSKI, Claudia [DE/DE]; Stormstrasse 15, D-64291 Darmstadt (DE). HEIDER, Lilia [DE/DE]; Lagerstrasse 37a, D-64347 Riedstadt (DE). STOCKUM, Werner [DE/DE]; Waldstrasse 59, D-64354 Reinheim (DE). (74) Attorney: MERCK PATENT GMBH; D-64271 Darmstadt (DE).	(81) Designated states: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO Patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW) Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With the International Search Report. Before expiry of the period provided for amending the claims, will be republished if such amendments are received.	

As printed

(54) Title: DOPING PASTES FOR PRODUCING P, P+ AND N, N+ ZONES IN SEMICONDUCTORS**(54) Bezeichnung:** DOTIERPASTEN ZUR ERZEUGUNG VON P, P+ UND N, N+ BEREICHEN IN HALBLEITERN**(57) Abstract**

The invention relates to novel doping pastes on the basis of boron, phosphorous or boron-aluminum for producing p, p+ and n, n+ zones in monocrystalline and polycrystalline Si wafers. The invention further relates to the use of corresponding pastes as masking pastes in the production of semiconductors, in power electronics or in photovoltaic applications.

(57) Zusammenfassung

Die Erfindung betrifft neue Bor-, Phosphor- oder Bor-Aluminium-Dotierpasten zur Erzeugung von p, p+ und n, n+ Bereichen in monokristallinen und polykristallinen Si-Wafern, sowie von entsprechenden Pasten zur Verwendung als Maskierungspasten in der Halbleiterherstellung, Leistungselektronik oder in photovoltaischen Anwendungen.