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(71) Applicant (for all designated States except US): **BASF SE** [DE/DE]; 67056 Ludwigshafen (DE).

(71) Applicant (for MN only): **BASF (CHINA) COMPANY LIMITED** [CN/CN]; 300 Jiangxinsha Road, Shanghai, 200137 (CN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **FERSTL, Berthold** [DE/DE]; Hardweg 6, 64625 Bensheim (DE). **BRAUN, Simon** [DE/DE]; Gontradstr. 8, 68163 Mannheim (DE). **FEBENBECKER, Achim** [DE/DE]; Obere Bachstraße 46, 68753 Waghäusel (DE).

(74) Agent: **FITZNER, Uwe**; Hauser Ring 10, 40878 Ratingen (DE).

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(54) Title: AQUEOUS ALKALINE ETCHING AND CLEANING COMPOSITION AND METHOD FOR TREATING THE SURFACE OF SILICON SUBSTRATES

(57) Abstract: An aqueous alkaline etching and cleaning composition for treating the surface of silicon substrates, the said composition comprising: (A) a quaternary ammonium hydroxide; and (B) a component selected from the group consisting of water-soluble acids and their water-soluble salts of the general formulas (I) to (V): $(R^1-SO_3^-)_nX^{n+}$ (I), $R-P_0S_3^{2-}(X^{n+})_{3-n}$ (II); $(RO-SO_3^-)_nX^{n+}$ (III), $RO-P_0S_3^{2-}(X^{n+})_{3-n}$ (IV), and $[(RO)_2P_0O_2]_nX^{n+}$ (V); wherein the $n = 1$ or 2 ; X is hydrogen or alkaline or alkaline-earth metal; the variable R^1 is an olefinically unsaturated aliphatic or cycloaliphatic moiety and R is R^1 or an alkylaryl moiety; the use of the composition for treating silicon substrates, a method for treating the surface of silicon substrates, and methods for manufacturing devices generating electricity upon the exposure to electromagnetic radiation.



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