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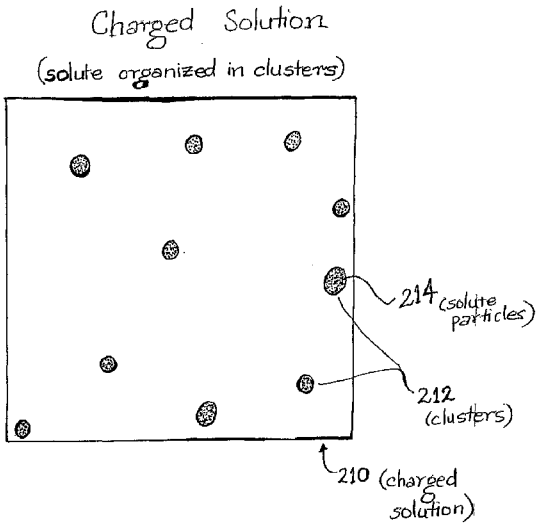
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(54) **Title:** SYSTEMS AND METHODS FOR CHARGING A CLEANING SOLUTION USED FOR CLEANING INTEGRATED CIRCUIT SUBSTRATES



(57) **Abstract:** Inventive methods, systems and compositions of cleaning integrated circuit ("IC") substrates are described. The cleaning methods of the present invention include: charging a solution, which contains at least a solute selected to promote cleaning of the IC substrate, to produce a charged solution, such that at least a portion of the solute is present as clusters in the charged solution; and conveying the charged solution for cleaning the IC substrate. The cleaning systems of the present invention include: a charging chamber for holding a solution, which contains at least a solute selected to promote cleaning of the integrated circuit substrate; and a first acoustic energy source capable of vibrating the solution in the charging chamber to produce a charged solution such that at least a portion of the solute is present as clusters in the charged solution.

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