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(54) Title: FLUID ASSISTED CRYOGENIC CLEANING

(57) Abstract: The present invention is directed to fluid assisted cryogenic cleaning of a substrate surface requiring precision cleaning such as semiconductors, metals, and dielectric films. The process comprises the steps of applying a fluid selected from the group consisting of high vapor pressure liquids, reactive gases, and vapors of reactive liquids onto the substrate surface followed by or simultaneously with cryogenic cleaning of the substrate surface to remove contaminants.