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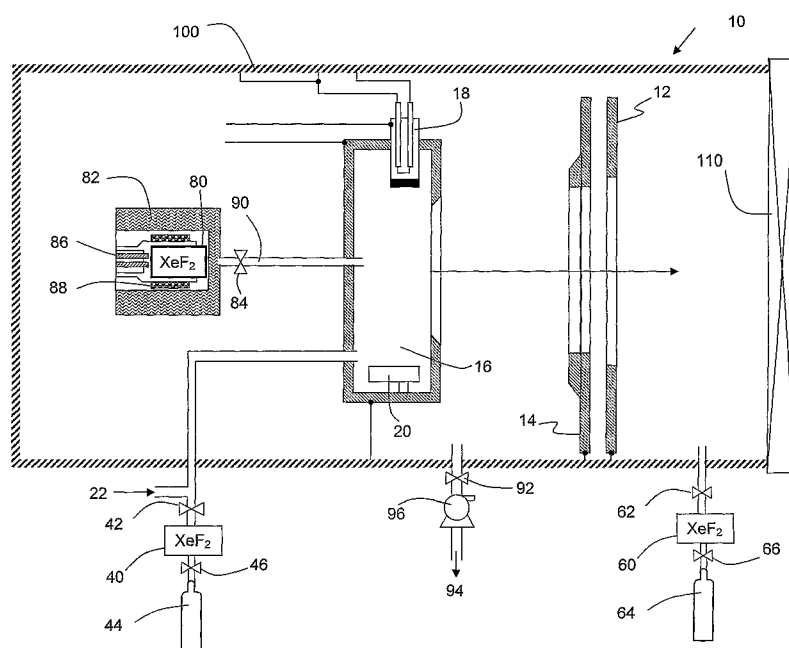
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(54) Title: NOVEL METHODS FOR CLEANING ION IMPLANTER COMPONENTS



(57) Abstract: A method and apparatus for cleaning residue from components of the vacuum chamber and beaming of an ion implanter used in the fabrication of microelectronic devices. To effectively remove residue, the components are contacted with a gas-phase reactive halide composition for sufficient time and under sufficient conditions to at least partially remove the residue. The gas-phase reactive halide composition is chosen to react selectively with the residue, while not reacting with the components of the ion source region of the vacuum chamber.



RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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