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(54) Title: IN SITU TREATMENT OF MOLYBDENUM OXYHALIDE BYPRODUCTS IN SEMICONDUCTOR PROCESSING EQUIPMENT

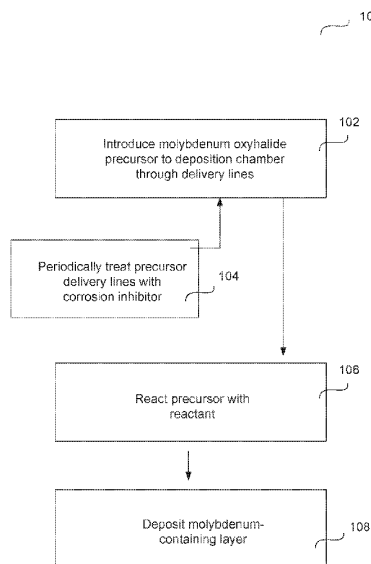


FIG. 1

(57) Abstract: Provided are methods for increasing the efficiency of atomic layer deposition of molybdenum metal by in situ cleaning and decontamination of molybdenum oxyhalide precursor delivery lines to a deposition chamber. The cleaning process may take place by pre-treating the delivery lines with at least one surface passivating agent and/or by periodically treating the delivery lines with at least one corrosion inhibitor. Also provided are methods of removing oxidation from a deposited molybdenum film.

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