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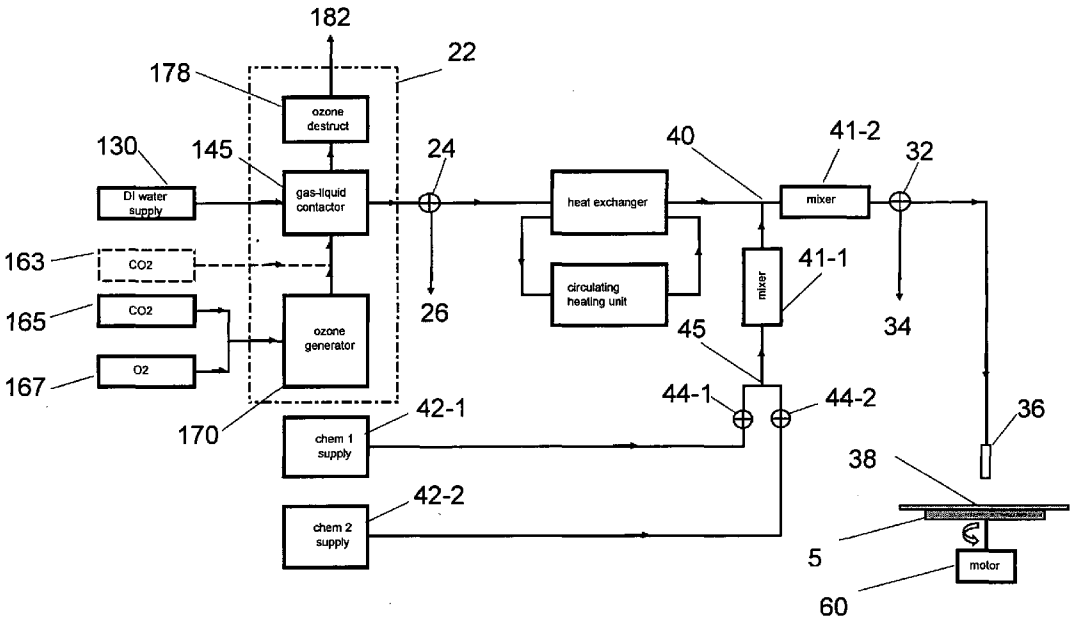
(54) **Title:** COPPER PROCESSING USING AN OZONE-SOLVENT SOLUTION



(57) **Abstract:** The present invention relates to a method and apparatus for treating materials such as copper or copper based metal alloys, used in fabricating semiconductor devices with an ozone solvent solution and avoiding damage to metals by corrosion. The invention is also applicable to treating of materials such as copper and copper based alloys for the purpose of forming a protective layer on the exposed metal surface for protection of those copper surfaces from damage or corrosion caused by subsequent exposure to other liquid, gas, or plasma environments. This can be achieved by properly selecting the composition of the ozone solvent solution and controlling the pH and ORP of the ozone-solvent solution while avoiding the use of certain chemical constituents in the ozone solvent solution.

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