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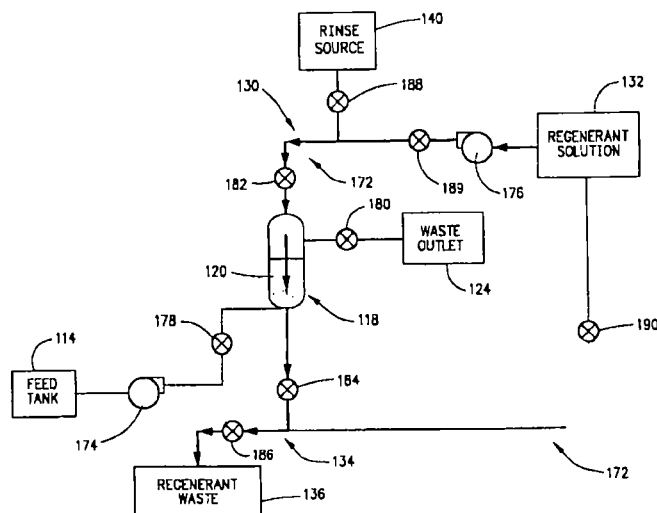
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(54) Title: METHOD AND APPARATUS FOR METAL REMOVAL BY ION EXCHANGE



(57) Abstract: The present invention provides a method for selectively removing metal ions of interest from a solution (12), such as the wastewater from a chemical mechanical polishing process. The method comprises contacting a solution (12) containing solid particles, an oxidizing agent and a first concentration of the metal ions with an ion-exchange resin (20), such as a crosslinked poly-4-vinylpyridine resin, that is resistant to damage by the oxidizing agent and that is operative when in contact with the solution (12) to exchange selected ones of the metal ions in the solution for selected preferred ions in the ion-exchange resin thereby to produce a treated solution (22) having a second concentration of the metal ions that is lower than the first concentration. The present invention also relates to an apparatus (100) and system (500) for use with the method of the present invention.

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