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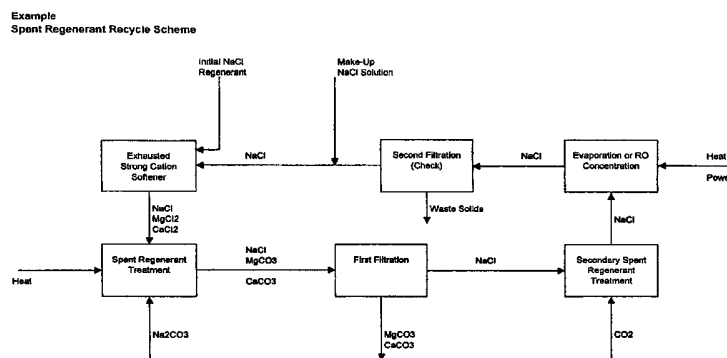
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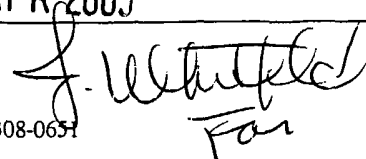


(57) Abstract: A process for recycling waste regenerant (1) from a softening procedure in which a waste having monovalent cations and halide anions is provided. The waste regenerant is passed through a column (2) of an ion exchange resin saturated with divalent cations. The regenerant is treated with alkaline solution (3) and carbon dioxide (4).

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/14334

| <b>A. CLASSIFICATION OF SUBJECT MATTER</b><br>IPC(7) : B01J 49/00<br>US CL : 210/673<br>According to International Patent Classification (IPC) or to both national classification and IPC                                                                                                                                                                                                                 |                                                                                                                                                                     |                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>B. FIELDS SEARCHED</b><br>Minimum documentation searched (classification system followed by classification symbols)<br>U.S. : 210/673<br>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched<br>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) |                                                                                                                                                                     |                                                                                                                                                                                                                                                  |
| <b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                     |                                                                                                                                                                                                                                                  |
| Category *                                                                                                                                                                                                                                                                                                                                                                                                | Citation of document, with indication, where appropriate, of the relevant passages                                                                                  | Relevant to claim No.                                                                                                                                                                                                                            |
| A                                                                                                                                                                                                                                                                                                                                                                                                         | US 4,522,727 A (WEBER) 11 June 1985 (11.06.1985)                                                                                                                    | 1-6                                                                                                                                                                                                                                              |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.                                                                                                                                                                                                                                                                     |                                                                                                                                                                     |                                                                                                                                                                                                                                                  |
| * Special categories of cited documents:                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                     |                                                                                                                                                                                                                                                  |
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| "O"                                                                                                                                                                                                                                                                                                                                                                                                       | document referring to an oral disclosure, use, exhibition or other means                                                                                            | "&" document member of the same patent family                                                                                                                                                                                                    |
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