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Bourgeois et al.

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[54] **FLUID BED SYSTEM FOR COOLING HOT SPENT ANODE BUTTS**

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[21] Appl. No.: **09/415,437**

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[57] ABSTRACT

[30] Foreign Application Priority Data

Dec. 16, 1998 [CA] Canada 2,256,145

The invention relates to a system for cooling and reducing fluoride emissions from a hot, spent anode butt removed from an electrolysis cell. The system comprises an elongated fluidised bed cooling chamber comprising particles of alumina and conveyor means for transporting a hot, spent anode butt through the fluidised bed. A lower air distributor is provided for injecting fluidising air into the chamber to create the fluidised bed and an upper air distributor is provided which is adapted to direct fluidised particles into contact with the top surface of the hot anode butt, whereby the fluidised bed surrounds the hot anode butt and serves to simultaneously uniformly cool the hot anode butt and significantly reduce fluoride emissions from the hot anode butt.

[51] **Int. Cl.**⁷ **F26B 3/08**

[52] **U.S. Cl.** **34/362; 34/367; 34/393; 34/401; 34/580; 34/66; 34/164; 34/182**

[58] **Field of Search** 34/332, 359, 360, 34/362, 367, 391, 393, 401, 576, 580, 539, 66, 164, 182; 422/144, 198, 212; 110/245; 210/634, 761

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32 Claims, 5 Drawing Sheets

