United States Patent [19]

Wiewiorowski et al.

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[54] **PHOSPHORIC ACID CRYSTALLIZATION PROCESS**

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[58] **Field of Search** ..... 23/295 R, 296, 297, 23/299-301; 423/316, 317, 321 R; 62/532, 536

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[57] **ABSTRACT**

The present invention relates to the processing of phosphoric acid by crystallization. Wet-process phosphoric acid is purified by cooling it to supersaturated conditions and adding relatively large amounts of fine, relatively pure seed crystal. Crystallization thereafter proceeds under conditions which substantially favor crystal growth on the seeds which are added and disfavor secondary nucleation. To prevent the crystallizing magma from reaching a viscosity which would render further processing difficult, the present invention provides for recycling raffinate in an amount sufficient to maintain the solids content of the crystallizing magma below about 40%.

5 Claims, 1 Drawing Figure