United States Patent [19]

Astley et al.

[11] **Patent Number: 4,487,750**

[45] **Date of Patent: Dec. 11, 1984**

[54] **STABILIZATION OF WET PROCESS PHOSPHORIC ACID**

[75] Inventors: **Vivian C. Astley**, New Orleans; **Jody J. Taravella**, Harvey, both of La.

[73] Assignee: **Freeport Minerals Company**, New York, N.Y.

[21] Appl. No.: **519,181**

[22] Filed: **Aug. 1, 1983**

[51] **Int. Cl.**[3] **C01B 25/16**

[52] **U.S. Cl.** ..... **423/321 R**; 423/317

[58] **Field of Search** ..... 423/316, 317, 319, 320, 423/321 R, 321 S

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,936,888	5/1960	Williams	423/321 R
3,481,700	12/1969	Legal et al.	423/321 R
3,528,771	9/1970	Shearon et al.	423/321 R
3,907,680	9/1975	Hill	423/321 R
4,048,289	9/1977	Pierres	423/317
4,110,422	8/1978	Hill	423/317
4,164,550	8/1979	Hill	423/321 R
4,248,846	2/1981	Hill	423/317
4,250,154	2/1981	Hill	423/317
4,279,877	7/1981	Hill et al.	423/321 R
4,293,311	10/1981	Hill	23/301
4,301,131	11/1981	Sanchez	423/321 R
4,305,915	12/1981	Hill	423/321 R
4,343,780	8/1982	Wolstein et al.	423/321 R
4,364,912	12/1982	Hill	423/321 R

Primary Examiner—Gregory A. Heller

Attorney, Agent, or Firm—Raûl V. Fonte

[57] **ABSTRACT**

An improved method for producing wet process phosphoric acid with low post-precipitation characteristics from an unclarified dilute wet process phosphoric feed acid is described. The feed acid is processed through crystallization, centrifugation and concentration steps under controlled conditions to produce the desired products. The method also allows for the simultaneous production of merchant grade phosphoric acid and clarified merchant phosphoric acid.

11 Claims, 3 Drawing Figures