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(54) **RARE EARTH METAL COMPOUNDS, METHODS OF MAKING, AND METHODS OF USING THE SAME**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

Rare earth metal compounds, particularly lanthanum, cerium, and yttrium, are formed as porous particles and are effective in binding metals, metal ions, and phosphate. A method of making the particles and a method of using the particles is disclosed. The particles may be used in the gastrointestinal tract or the bloodstream to remove phosphate or to treat hyperphosphatemia in mammals. The particles may also be used to remove metals from fluids such as water.

11 Claims, 29 Drawing Sheets

