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(54) Title: ZINC LANTHANIDE SULFONIC ACID ELECTROLYTES

(57) Abstract: Disclosed are aqueous solutions for use in high energy, highly efficient electrical energy storage devices. The solutions contain (a) a high purity sulfonic acid with a low concentration of low valent sulfur compounds or higher valent sulfur compounds susceptible to reduction, (b) a metal or metals in an oxidized state that are capable of being reduced to the zero valent oxidation state, (c) a metal that is in an oxidized state that is incapable of being reduced to its metallic state and (d) optionally, a buffering agent and/or conductivity salts.

