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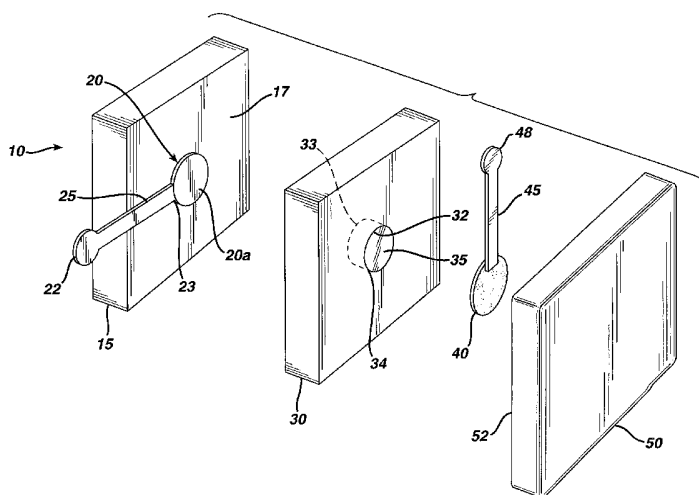
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(54) Title: ALKALINE CELL WITH POLYMER ELECTROLYTE



(57) Abstract: An alkaline cell having an anode comprising zinc, a cathode comprising manganese dioxide and an electrolyte comprising polyvinylbenzyltrimethylammoniumhydroxide. The anode can comprise particulate zinc dispersed within an aqueous gel comprising crosslinked polyvinylbenzyltrimethylammoniumhydroxide polymer. Optionally, aqueous KOH can be added to the gel. The anode and cathode are desirably in the shape of a slab each having a pair of opposing parallel flat faces defining two opposing ends. The zinc particles dispersed in crosslinked polyvinylbenzyltrimethylammoniumhydroxide polymer can be concentrated at one end of the anode slab with the opposing end being clear of zinc. The clear end of the anode preferably also comprising polyvinylbenzyltrimethylammoniumhydroxide functions as a separator between anode and cathode. The cathode slab comprises a mixture of particulate manganese dioxide, graphite, and linear polyvinylbenzyltrimethylammoniumhydroxide polymer. The polyvinylbenzyltrimethylammoniumhydroxide polymer functions to bind the manganese dioxide particles and also functions as electrolyte during cell discharge.

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B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; PEREGUDOV, YU. S. ET AL: "Thermodynamic parameters of dilution and mixing of the solutions of poly(vinylbenzyltrimethylammonium) in various ionic forms" XP002297985 retrieved from STN Database accession no. 1999:332176 abstract & VYSOKOMOLEKULYARNYE SOEDINENIYA, SERIYA A I SERIYA B , 40(7), 1224-1227 CODEN: VSSBEE; ISSN: 1023-3091, 1998, ----- -/--	1-32

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DATABASE CHEMABS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; MATUSEVICH, V. V. ET AL: "Electric conductivity of aqueous solutions of polyvinylbenzyltrimethylammonium hydroxide and salts" XP002297986 retrieved from STN Database accession no. 1986:627713 abstract & VESTSI AKADEMII NAVUK BSSR, SERYYA KHIMICHNYKH NAVUK , (3), 11-14 CODEN: VBSKAK; ISSN: 0002-3590, 1986,	1-32
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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