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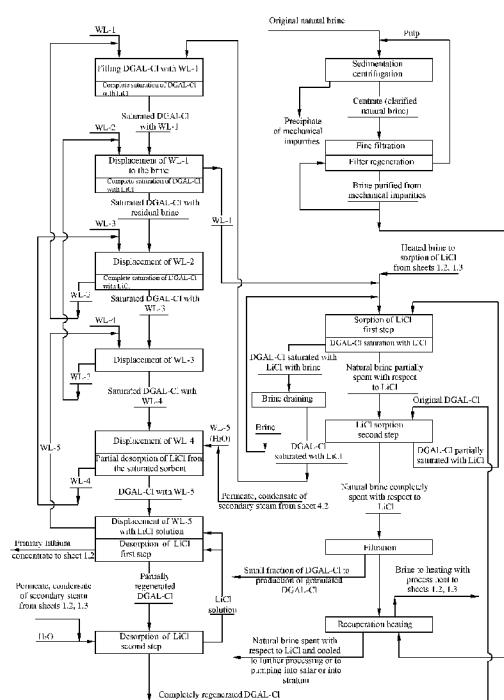
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(54) Title: METHOD FOR PREPARING LITHIUM CONCENTRATE FROM LITHIUM-BEARING NATURAL BRINES AND PROCESSING THEREOF INTO LITHIUM CHLORIDE OR LITHIUM CARBONATE



Page 1 of 1

(57) Abstract: Method for preparing lithium concentrate from natural lithium-bearing brines was developed. The brine is first subjected to purification from the suspended solids, then filtered through a static layer of the granulated sorbent based on the $\text{LiCl} \cdot 2\text{Al}(\text{OH})_3 \cdot m\text{H}_2\text{O}$, where $m=3-5$, to obtain primary lithium concentrate. The process is carried out in sorption-desorption units consisting of 4 columns, two of which are in the process of lithium chloride from the brine, one column is in the process of washing the sorbent saturated with lithium chloride from the brine, and one column is in the process of lithium chloride desorption. Primary lithium concentrate is converted to a secondary lithium concentrate by concentration in evaporative pools or reverse-osmotic concentration-desalination. Secondary lithium concentrate is used for further production of lithium chloride or lithium carbonate. Invention increases recovery of lithium chloride during sorption enrichment of natural lithium brines, improves the quality of lithium chloride and lithium carbonate obtained, widens the range of lithium-bearing hydromineral raw materials suitable for the production of lithium compounds, by using lithium-bearing natural brines containing suspended particles.

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
Esp@cenet, DWPI		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	RU 2516538 C2 (3AO "ЭКОСТРА-ХАЙТЕХ"), 20.05.2014, p. 8-18, claims 1-5	1-4
A	RU 2543214 C2 (3AO "ЭКОСТРА-ХАЙТЕХ"), 27.02.2015	1-4
A	US 7157065 B2 (CHEMETALL FOOTE CORPORATION et al.), 02.01.2007	1-4
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