

Title (en)
ELECTROLYSIS DEVICE FOR THE PRODUCTION OF ALKALI METAL

Title (de)
ELEKTROLYSEVORRICHTUNG ZUR HERSTELLUNG VON ALKALIMETALL

Title (fr)
DISPOSITIF D'ELECTROLYSE DESTINE A LA FABRICATION DE METAL ALCALIN

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Application
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Abstract (en)
[origin: WO2006029807A2] The invention relates to an electrolysis device for the production of alkali metals from a liquid alkali metal heavy metal alloy (6), comprising at least two tubes (1) which are arranged in a substantially horizontal manner above each other and which are connected to each other by means of tube couplings (3), forming an electrolysis unit (2); two solid electrolyte tubes (12) which are arranged in each tube (1) and which are closed at one end and which have an opening (11) at the other, conducting the alkali metal ions, wherein the solid electrolyte tubes (12) are arranged concentrically in the tube (1) and are oriented with the opening (11) towards one end of the tube (1) such that a first annular gap for guiding the liquid alkali metal heavy metal alloy (6) forming an anode, is located between the inside of the tube (1) and the outside of the solid electrolyte tubes (12); an alloy inlet (8) and an alloy outlet (9) for the liquid alkali metal heavy metal alloy (6) in each of the tubes (1) which lead into the first annular gap (13) of a tube (1), being horizontally distanced from each other, from the top down; an inner chamber (14) which is sealed off from the alloy inlet (8), first annular gap (13) and alloy outlet (9) in each of the solid electrolyte tubes (12) for receiving liquid alkali metal which can be used as a cathode and which is connected to the alkali metal outlet (15); and two respective closure devices (4) which are arranged at the two ends of each tube (1).

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