

Title (en)
ELECTROLYSIS CELL FOR PRODUCING ALKALI METAL

Title (de)
ELEKTROLYSEZELLE ZUR HERSTELLUNG VON ALKALIMETALL

Title (fr)
CELLULE ELECTROLYTIQUE POUR LA FABRICATION DE METAL ALCALIN

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Abstract (en)
[origin: WO2006029792A2] The invention relates to an electrolysis cell for producing liquid alkali metal from a liquid alkali metal and heavy metal alloy. Said cell contains a tube (1) which is arranged in an essentially horizontal manner and which is provided with a closing device (4) which is arranged on each of the two ends of the tube (1), at least one solid electrolyte tube (12) which guides alkali metal ions, which is arranged in the tube (1) which is closed on one end and comprises an opening (11) on the other end. The solid electrolyte tube (12) is arranged in a concentric manner in the tube (1) and the opening (11) is orientated towards one end of the tube (1) such that a first annular gap (13), which is used to guide the liquid alkali metal and heavy metal alloy forming an anode, is arranged between the inner side of the tube (1) and the outer side of the solid electrolyte tube (12), an inner chamber (14) in the solid electrolyte tube (12) which is used to receive the liquid alkali metal which can be used as a cathode. The closing device (4) comprises an alkali metal and heavy metal alloy supply (8) or discharge (9) which lead into the first annular gap (13), a retaining device for the solid electrolyte tube (12), an alkali metal discharge (15) which is connected to the inner chamber (14) of the solid electrolyte tube (12) and a sealing system which is used to seal the inner chamber (14) of the solid electrolyte tube (12) and the alkali metal discharge (15) in relation to the first annular gap (13), the alkali metal and heavy metal alloy supply (8) or discharge (9) and in relation to the surroundings of the electrolysis cell.

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