# Electrolytic refining of lead in molten chloride electrolytes

Pavel Arkhipov, author



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Abstrak

Three types of antimony and bismuth electrolytic cells to be used for lead electrorefining were developed and tested. The electrolytic cell with the bipolar metallic electrode, the electrolytic cell with two anodes and one cathode, and the electrolytic cell with the porous diaphragm were studied. The tests demonstrated that lead is effectively separated from the metallic impurities in all constructions. Grade lead may be obtained at the cathode, and lead-antimony and lead-bismuth alloys may be produced at the anode. The electrolytic cell with a porous diaphragm was found to double the production rate and greatly decrease the electrical potential of the cell as compared to the other two constructions.