

APPLICATION OF FLOW-THROUGH THREE-DIMENSIONAL ELECTRODES FOR REGENERATION OF PLATING IRON ELECTROLYTES: 2. STUDY OF PROCESS REGULARITIES BY MATHEMATICAL MODELING

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Abstract. The main regularities of the electroactive components distribution, polarization and local current density within the depth of the three-dimensional flow-through electrode have been studied using the calculation method, in dependence on the overall current density, electrode thickness and degree of its compression, solution flow velocity through the electrode, initial concentration of Fe(III) ions in the solution and electrodes brand.

Keywords: three-dimensional flow-through electrode, mathematical modeling, numerical calculations, polarization, local current density.