

## PROCEDURES OF CHEMICAL WASTEWATER PURIFICATION OF GALVANIC CHEMICAL PROCESSES AND QUALITY OF PURIFIED WATER

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### Abstract

*The procedures of chemical purification of wastewater with chemical changes of polluting (harmful) water substances are: neutralization - adjusting the pH value by adding acids or bases; flocculation (flocculation) – joining of dissolved particles into larger flakes that settle; coagulation (coagulation) – addition of chemical substances for faster precipitation; ion exchange - the process of ion exchange between solids (ion exchangers) and liquids (electrolyte solution) and oxidation – removal of various substances from wastewater by oxidants (chlorine, chlorine dioxide, ozone, hydrogen peroxide, etc.). Technological processes of galvanic-chemical protection, according to qualitative-quantitative characteristics, represent one of the most complex pollutants of wastewater. In the processes of galvanic-chemical protection in "ORAO" A.D. Bijeljina, according to the nature of its origin, wastewater contains: free acids and bases; specific contaminants: cyanides, chromates, and nitrates and dissolved heavy metals: Fe, Cd, Ni, Cu, Zn, Ag and others. Applying the shown (and other) procedures, as well as their suitable combination, in the wastewater treatment plant, the quality of purified water is obtained, which, according to the legislation in the Republic of Srpska, can be discharged both into the river recipient and into the public sewage system.*

*The paper presents some of the segments of complex chemical procedures for the treatment of polluted wastewater, while the obtained results of testing of treated industrial wastewater refer to the sample for the II quarter of 2024.*

**Keywords:** waste, electroplating, procedures, wastewater, quality.