

Invention relates to the field of environmental protection. Method for obtaining a copper-zinc ferrite composite, in which a copper-zinc solution is mixed, while being heated, with $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ salt and a NaOH alkali solution to a pH of 10–10.5, and the ferritization process is carried out at a temperature of 60 °C, the concentrations of Cu(II) and Zn(II) salts in the wastewater are 0.25 M, the ratio of $\sum \text{Me}^{2+} : \text{Fe}^{2+}$ is 1:2, an oxidizing agent—potassium persulfate ($\text{K}_2 \text{S}_2 \text{O}_8$)—is added, and the ferrites are washed to remove soluble compounds, yielding a ferrite composite containing the ferrite $\text{Zn}_{0,51}\text{Cu}_{0,5}\text{Fe}_{2,1}\text{O}_4$. Technical result: ensuring the efficiency and low-waste nature of processes for purifying solutions containing metal ions, reducing water consumption, and achieving high sorption characteristics of ferrite composites with respect to Cu(II) ions.