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## "CREATING AN EFFECTIVE TECHNOLOGY IN THE SEPARATION OF VALUABLE COMPONENTS IN THE COMPOSITION OF COPPER ENRICHMENT FACTORY WASTE"

Kurolova Maftuna Komiljon

TDTU named after Karimov "Science and progress "Duke free researcher

Abed Nodira Soyibjanovna

TDTU named after Karimov "Science and progress "Dog t.F.d., Prof.,

**Annotation:** The creation of industrial waste processing technologies is of great ecological and economic importance. The achievement of high technological indicators in the enrichment of metallurgical waste slag by flotation depends on the composition, size, mineral and phase composition of copper and other valuable components, the method of preparing slag for flotation and the adopted enrichment technology.

**Keywords:** waste slag, flotation, sulfide, mineral, phase composition, oxygen-torch oven, converter oven. The constant growth of the population in a developed time and the increased demand of mankind for resources also leads to the need to switch to their rational use. As a result of the rapid development of the mining and processing industry in recent decades, the demand for division into precious metals has also increased[1].

In the modern metallurgical industry, technologies for the enrichment of non-ferrous metal ores require significant improvement, which is due to a decrease in valuable components and a complication of mineralogical composition. It assumes the development and application of scientifically based methods of improving the efficiency of processing minerals, reducing material costs for processing, increasing the environmental safety of mining and processing, and regulating[2]. Today, as a result of the decrease in mining, the demand for waste in non-ferrous metallurgical plants, slag and slurry of the metallurgical industry, residues is increasing. The problem of processing metallurgical slag and choosing the most effective technology for separating precious metals from them and their widespread use is the most important task for mining enterprises in today's conditions[3]. Also, unprocessed metal slags are stored in the landfills of the enterprise and at the same time occupy a very large area, polluting the environment. Slag processing not only reduces metallurgical waste, but also achieves an economic effect, which means not only to receive additional benefits, but also to reduce the negative impact on the environment.

Copper slag is being considered more recently as a resource for copper production. The total copper slag in the world is 30 million tons. Accordingly, many waste slags are almost unused by accumulating near smelters. With this, very large areas of land are occupied and lead to the loss of precious metals. So, from the point of view of the environment and resources, it is necessary to develop a suitable technology when extracting precious metals from copper slag. Today, in pyrometallurgical production of copper in the Olmalyk Mining Metallurgical Combine, the amount of precious metals contained in waste slag from smelting furnaces is growing. For example, oxygentorch furnace slag contains around 1% copper, while converter furnace slag contains around 2.5-3% copper. This is a much higher indicator than the allowable amount for the exhaust. Waste slags with such a pointer need to be recycled, and waste slags cannot be used as building materials because they contain large amounts of precious metals[4]. The technology that allows you to get the most complete and cheaper when extracting copper and precious metals from slag is flotation. Flotation

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of waste slag ushun additional machines and grinders will not be needed, and the shooting area and funds will not be spent.

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