МЕДИЦИНА, ПЕДАГОГИКА И ТЕХНОЛОГИЯ:
ТЕОРИЯ И ПРАКТИКА
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MINERAL ENRICHMENT PROCESSES.

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Abstract: This article presents an analysis of the processes of mineral preparation, crushing, grinding, classification, grinding to beneficiation processes.

Key words : Preparation processes, grinding, crushing, classification, grinding, enrichment processes, gravity, flotation, magnetic enrichment,

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The importance of the mining industry in raising the economy of our republic to a higher level is considered great. The amount of precious component in minable ores is small. Direct extraction of metals from such ores is neither economically nor technically justified. Therefore, in most cases, after mining, the ore is enriched, that is, the amount of the valuable component in it is increased, and the enriched product is sent to metallurgical plants for metal extraction.

As a result of beneficiation of ores, the following advantages are achieved: due to the possibility of processing poor ores, reserves of minerals increase. With the increase in the amount of metal in the products, the production efficiency of metallurgical plants increases, the consumption of electricity, fuel, chemical reagents decreases, the possibility of complex use of minerals is created, transportation costs are reduced, etc.

Classification of enrichment processes. Minerals are necessarily mined and sent to beneficiation factories or hydrometallurgical plants, that is, the product we need from its content is transported to separate the valuable component . Therefore,

mineral enrichment processes are divided into the following 3 main large parts in sequence:

1. Preparation processes
2. Main processes
3. Assistant processes

That's three in unity processes of enrichment say technology we get can

1. Preparation processes from learning goal mineral of particles surface part many of loose rock open to give and initial raw the item to get rich preparation we understand . These processes various in principle working grinders , grinders and in the mills done is increased .

2. Enrichment main in processes while to get rich ready was raw material particles each different methods using their composition , physico - chemical properties looking get rich separate get is understood .

3. Assistant from processes main goal main enrichment of processes efficiency which increases and again work as a result of the product efficiency increasing processes is understood . In this dedusting , workshops ventilation (ventilation), fogging , dehydration , condensation filtering drying stages is understood .

Preparation the processes are also their own in turn to the following divided into :

1. Grinding .
2. Elash .
3. Burning
4. Classification , classes separation - classification .

Main (enrichment) processes too own in turn to the following is divided and enrichment methods organize is enough

1. Gravity method enrichment
2. Flotation method enrichment
3. Magnet method enrichment
4. Electric method enrichment
5. Special chemical method enrichment and etc.

Useful fossils types , them physicist chemical composition and characteristic looking above cause passed known one in technology enrichment method is selected .

Assistant processes while the following organize is enough

1. Dehydration
2. Q to laugh .
3. Filtering (received concentrates)
4. Q hit (taken concentrates)
5. Sweating .
6. Sex ventilation

Gravitational enrichment is mainly based on the relative weight and density of particles in an aqueous environment , and in simple terms, it is understood to extract the necessary useful elements from the composition of the crushed product. This method is considered one of the oldest enrichment methods.

Enrichment in the flotation method is based on hydrophobic and hydrophilic properties of the particles, i.e. wetting and non-wetting of the particles. There are oil, gas or ionic types of flotation.

Magnetic enrichment is based on the magnetization properties of particles. In this way, mainly iron-containing ores are enriched.

Enrichment by electric method , this method is based on conducting particles with a strong electric current. Of this for concentrates more clean up separate get for electrolysis to do methods is used .

Special chemical method enrichment as follows to methods breaks down :

1. In heaps choose melting
2. Earth under method choose melting
3. In special cases (big in size in containers) by choosing melting

Different from the circumstances come came out without as follows from the balance except ores in heaps choose melting useful scratches thin from plastics organize found if land under method choose dissolves , etc without land under method digging take or open method miner take enrichment economic from the side does not cover and on the contrary to the detriment is processed ; useful fossils known one method get rich concentrate separate from received after waste in the composition the rest necessary useful components completely separate get for special in chans melting method is used .

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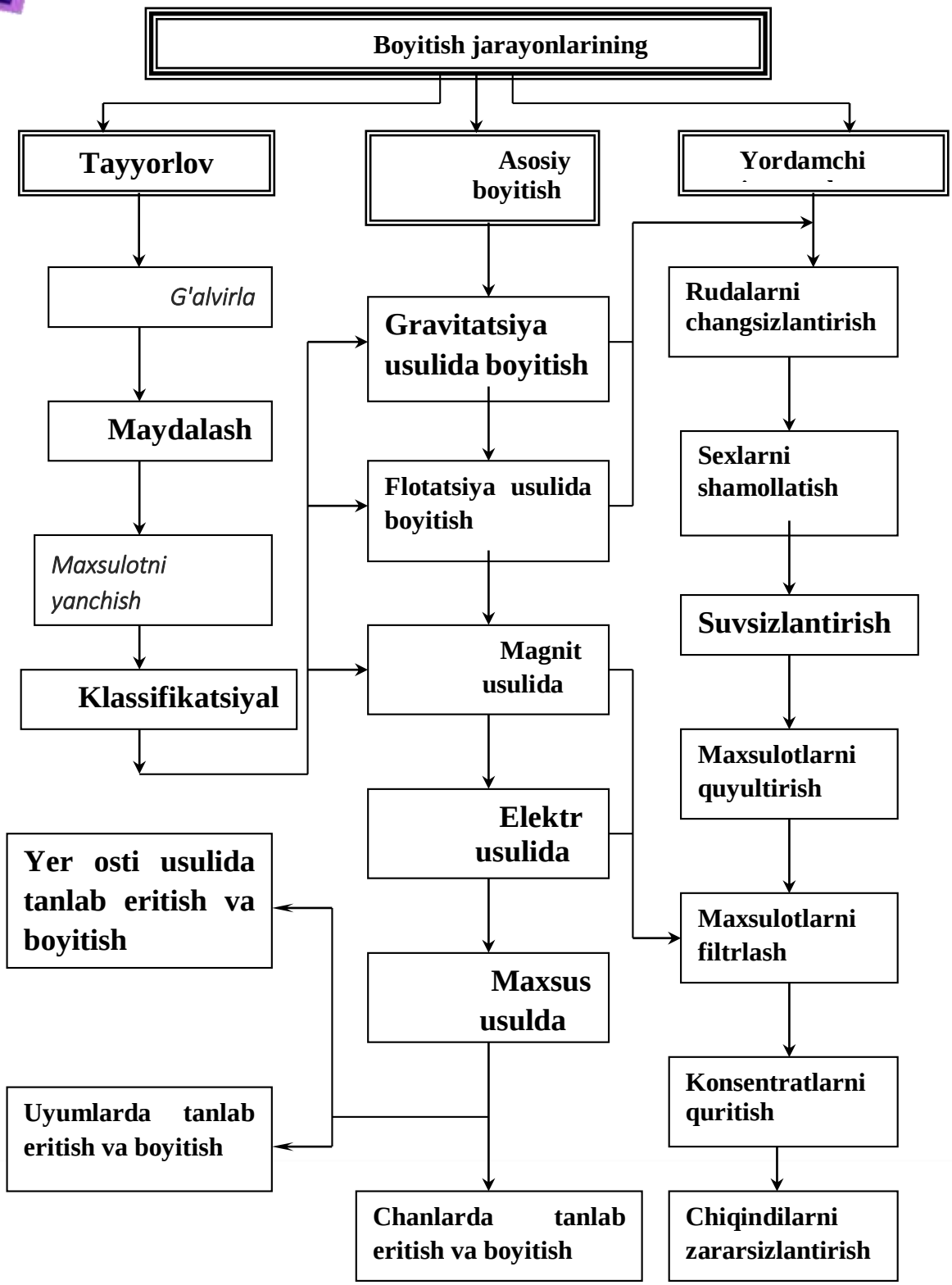

Summary :

Above telling passed processes reasonable done increase , to us useful fossil contained of the component the amount to increase help gives and the world recognized by the market unique and rare metals metallurgy from the factory directly right the world to the market release enable gives And this own in turn Uzbekistan of the economy to growth cause will be

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