

# КОМПЛЕКСНОЕ ИСПОЛЬЗОВАНИЕ ВЫСОКОМИНЕРАЛИЗОВАННЫХ ВОД ПРИРОДНЫХ ИСТОЧНИКОВ

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**Аннотация.** Проанализирована возможность использования вод поверхностных высокоминерализованных источников (солёных озёр) в технологических процессах на промышленных и энергетических объектах, а именно в реализации процессов регенерации Na-кационитных фильтров (в части приготовления регенерационных растворов из вод поверхностных высокоминерализованных источников) и в процессах тяжёлосреднего обогащения (в части использования вод поверхностных высокоминерализованных источников в качестве тяжёлой среды). Проведены экспериментальные исследования с водой озера Баскунчак на возможность приготовления кондиционного регенерационного раствора и извлечения несгоревших угольных частиц из модульных смесей и золошлаковых отходов.

**Ключевые слова:** поверхностные высокоминерализованные источники, регенерация, нанофильтрация, Na-кационитный фильтр, обогащение, уголь, золошлаковые отходы, тяжёлая среда

## INTEGRATED USE OF HIGHLY MINERALIZED WATERS OF NATURAL SOURCES

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**Abstract.** The possibility of using the waters of surface highly mineralized sources (salt lakes) in technological processes at industrial and energy facilities, namely in the implementation of the processes of regeneration of Na-cationite filters (in terms of preparation of regeneration solutions from the waters of surface highly mineralized sources) and in the processes of heavy-medium enrichment (in terms of using the waters of surface highly mineralized sources as a heavy medium) is analyzed. Experimental studies have been conducted with the water of Lake Baskunchak on the possibility of preparing a conditioned regeneration solution and extracting unburned coal particles from modular mixtures and ash and slag waste.

**Key words:** surface highly mineralized sources, regeneration, nanofiltration, Na-cationic filter, enrichment, coal, ash and slag waste, heavy environment

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