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## Poskus bogatenja kalcijevega karbonata s postopkom flotacije

### Flotation beneficiation trial of the calcium carbonate

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#### POVZETEK

Pri proizvodnji papirja ter nekaterih drugih proizvodnih procesih se kot polnilo oziroma belilo uporabljajo različne mineralne surovine, ena od teh je tudi kalcijev karbonat. V nahajališčih se poleg koristne mineralne surovine pojavljajo spremenljivi deleži različnih jalovih primesi. Ker različne primesi, v našem primeru grafit, kalcijev karbonat obarvajo, ga je potrebno z ustreznim postopkom bogatenja odstraniti. Zaradi različnih deležev primesi v kalcijevem karbonatu iz različnih nahajališč, pa tudi zaradi razlik znotraj enega nahajališča, je zato potrebno postopek bogatenja koristne mineralne surovine prilagoditi specifičnim zahtevam. V praksi proces optimiramo predvsem glede na vrsto in delež koristne substance ter primesi. Cilj v članku prikazane raziskave je bil ugotoviti možnost uporabe mehanskega postopka flotacije za bogatenje kalcitne moke na način, da material postane komercialno zanimiv za prodajo predvsem v papirni industriji pa tudi industriji barv, lakov, lepil, tesnil in umetnih mas.

**Ključne besede:** kalcijev karbonat, flotacija grafita, flotacijska celica Denver.

#### ABSTRACT

In the production of paper and some other production processes as a filler or bleach they also use different minerals, one of which is calcium carbonate. In addition to the useful minerals in the deposit occurring also variable proportions of waste minerals. Since different addition minerals, in our case graphite, calcium carbonate coloured, it is necessary to remove it with the corresponding enrichment processes. Due to the different proportions of waste mineral admixtures in calcium carbonate from different sites, as well as differences within a single deposit, it is therefore necessary process of enriching useful mineral raw materials adapted to the specific requirements. In practice, the process is optimized in particular with respect to the type or proportion of useful minerals and the waste minerals. The aim in the paper presented study was to determine the possibilities of the calcite sample to be mechanically cleaned of impurities so that the material can become

commercially interesting, primarily for sale to the paper industry as well as to the paint, adhesives, and sealants industry, as well as similar industries

**Key words:** calcium carbonate, graphite flotation, flotation cell Denver.